

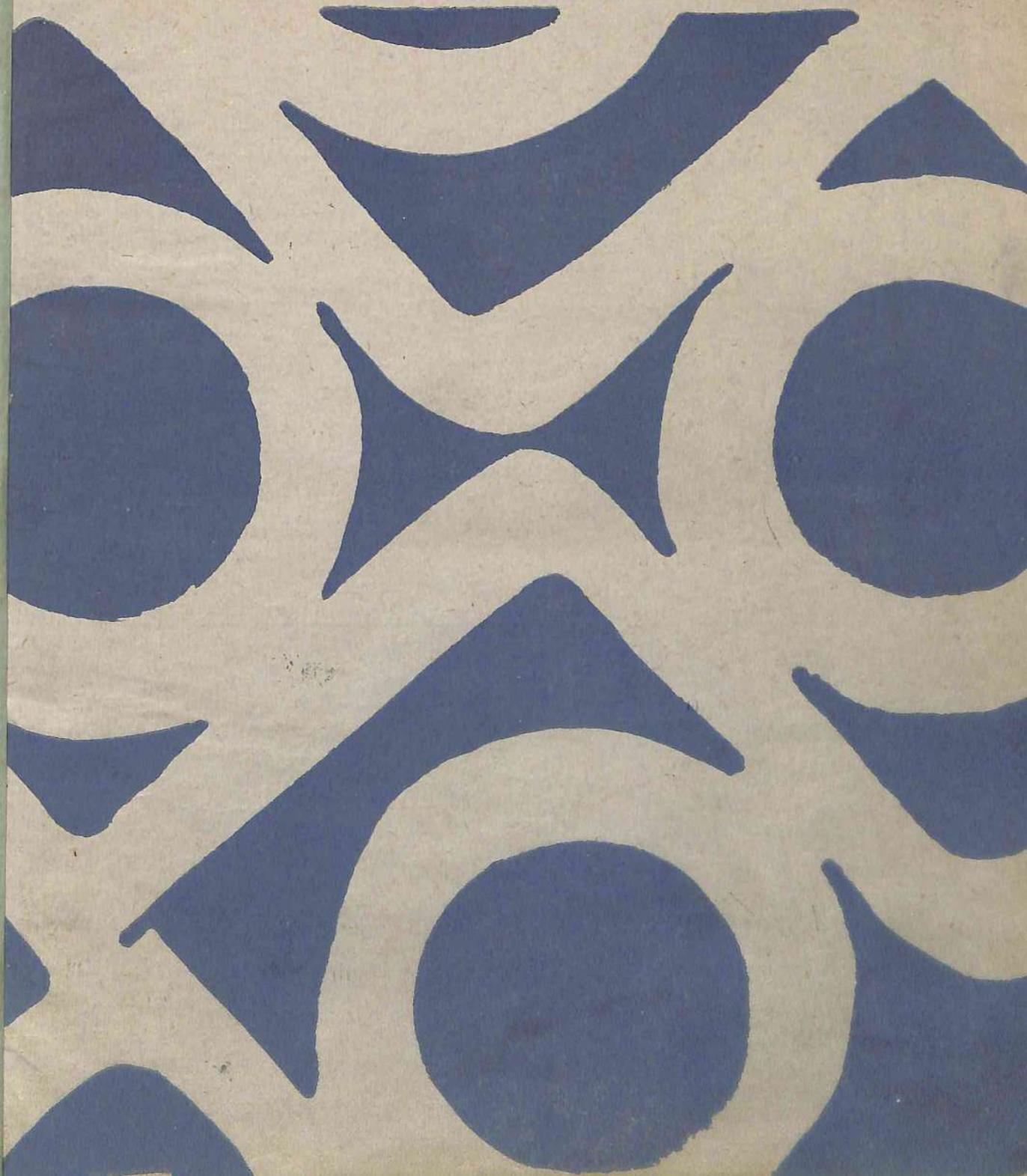
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Radhakrishnan's educational crisis



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# the deepening crisis



THE post-Independence generation has become used to finding itself in the midst of crises. Each crisis seems to be more complex and involving fundamental distortions in the social, economic and the political organisation of the nation. That we are again in a disturbing situation is being realised by almost every body: the leaders, the intellectuals and the helpless common men. Most people are also aware of the deep-seated reasons of the present *malaise*.

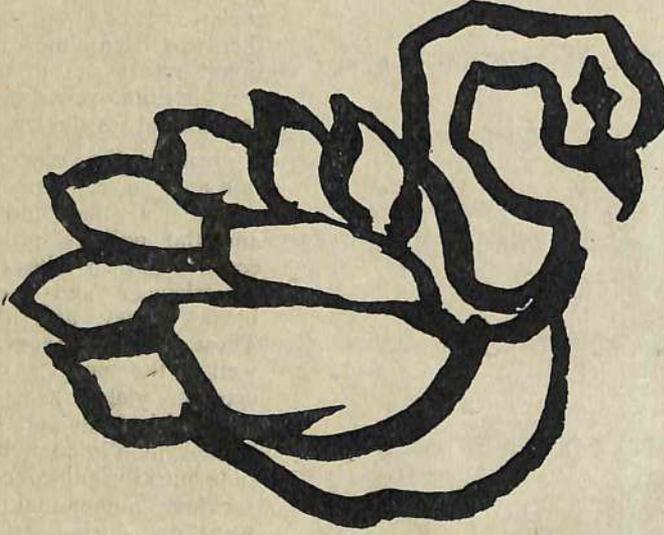
Dr. Adiseshiah speaks in this Journal of the educational

crisis. The alarming thing is that a society which most needs change in the educational system is least inclined to bring about it. The educational crisis is directly related to the decaying social institutions which curb growth, in individual and in society. It can be argued that there has been almost no institutional reform of our social system in the post-Independence era, indeed for the last 50 years.

Just as the crises in education and society are inter-connected so are the economic system and the political process. The economy which takes for granted the existence and expansion of black money and illicit gains. These influence Government as well as the political parties. The economy yields gains for those engaged in trade and industry at a rate which in comparison would fade into insignificance even the rackless money-making which went on during the Second World War. These classes have also become amazingly capable of influencing policy making by the political leaders and decision making in Government.

The role of adult education in this over-whelmingly disturbing situation needs to be understood in a proper perspective. One set of adult educators have begun to feel that adult education should create dissatisfaction and should promote organisations which would fight the organised economic system which has ceased to result in improvement of the economic status of the vast majority of population, which increases inequalities and which has rendered the decision makers so indifferent to the urgency of educational change. On the other hand there is an equally convinced group which believes that the process of education involves persuasion.

On whichever side one is, one has to redefine the role of adult education, review the content and the methods used. It is hoped that Dr. Adiseshiah's superb paper will provide just that.



श्रेयान्द्रव्यमयाद्यज्ञाज्ज्ञानयज्ञः परंतप ।  
सर्वे कर्माखिलं पार्थ ज्ञाने परिसमाप्यते ॥  
—गीता

**Knowledge sacrifice, O scorcher of foes, is superior to wealth sacrifice. All karma in its entirety, O Partha, culminates in knowledge.**

Man lives to add more and yet more to his wisdom and not to multiply his material possession beyond proportion. Things material cannot be made more use of than the requirement. Over-possession fosters care and anxiety. The man becomes earth-bound beyond redemption. Knowledge, on the other hand, develops into wisdom. It embellishes the personality, aids one to discern between the self and the non-self and leads man into enlightenment and liberation.

The feeling that the mind has to be kept as fresh and pure as a flower is more conducive to spiritual growth and enlightenment than offering a heap of worship it on the altar. The knowing man has less of the problem of life than the ignorant one.

**Swami Chidbhavananda,  
Srimadbhagavadgita**

# the relevance of adult education to our educational crisis

Malcolm S. Adiseshiah

and higher, so we can, as we have in quite a few cases, succeeded in making of the work school, the basic school, a place of mechanical work. I want in his memory to call attention to some aspects of the all prevailing crisis of our educational system. Education is for me the process of learning. The educational system is the complex of institutions—the school, the college, the University—which mediates that process. Education is thus the judge of our educational system. As a learning process, society through the educational system decides what it wishes to learn, where and how.

## **educational system—a reflection of our society**

And here is our first dilemma. Our educational system is a reflection of our socio-economic system. It is as maldeveloped as our economy. The evidence of this is seen in the fact that its products are unemployed or unemployable. Our economy is growing at such a slow pace that it is not able to absorb the engineers and scientists produced by the educational system. Should our engineering colleges and polytechnics then have been planned as we are doing now at the same rate of growth or non-growth as that of our economy? We planned the Fourth Plan at an annual average rate of growth of 5.7 per cent and industry at 8 per cent. Actually we will be averaging something nearer 3 per cent and 6 per cent respectively. For the Fifth Plan we are planning a growth rate of 5.5 per cent and an industrial growth of 8.3 per cent. And so for both plan periods we are maintaining admissions into our engineering institutions at the reduced level that we established in 1966-67 and have thus equated our technical educational institutions with our economy in that both partake of a stagnant, stop and go and declining trend.

Even more serious is that the products of the educational system are unemployable. Today

## **Definitions**

Dr. Zakir Husain in his Patel Memorial Lecture described the crisis of the educational system that he had helped to develop thus: Just as we can turn a so-called intellectual book school into a mechanical memory training school, as we have, God bless us, succeeded in doing in hundreds of thousands of our schools without a dog barking and without yet preventing their number from jumping up higher

3 million of the 3.2 million S.S.L.Cs. and above registered with the employment exchanges are the non-professional general education S.S.L.C., P.U.Cs., graduates and post-graduates. They are not employable because what they learn in the educational institution is apparently not what our society needs. I say apparently because it must be that society itself does not know what it needs and takes the easy way out in letting our educational institutions churn out year after year the same irrelevant products. We are accustomed to criticising our educational institutions as being out dated in their learning materials, futile in their learning techniques and misleading in their evaluation of what has been learned. But this is exactly what our society wants of our educational system. How otherwise can we explain the long train of educational reform blue prints and educational renovation reports starting from the Wardha Scheme to the Kothari Commission that we have not done anything about? It is not simply the school and college that have not acted on them. It is society which does not want them to. Contrast this with such proposals as the new agricultural technology—HYV, NPK and pesticides—which society promptly acts upon.

Or again how can we explain the quantitative explosion of our educational institutions with parents rushing in year after year to enter their children into the deteriorating schools and colleges to a point where the admission time is a period of nervous breakdown for so many of our headmasters, principals and vice-chancellors. Contrast this continuously rising demand for the useless education imparted outrunning its supply, with the demand and supply situation for such similar products as adulterated food or infected milk. And so our first crisis point is that our poor maldeveloped society is getting the poor distorted educational system that it demands.

### **educational system—an elitist system**

This social demand for education is a class demand—and that is the second point of our educational crisis. Even this poor educational system of ours is so structured as to load the dice against the vast majority of students of school or college going age. It is not only that there are more students who are out of school rather than in it—60 per cent at the primary, 80 per cent at secondary, and 97 per cent at the University level are out of school; but in the process the poor majority, who are pushed out of school and college learn how unsuited they are to go to school, how ragged their clothing is to sit in with well clad student, how atrocious their manners are at the midday meals compared to the behaviour of the well fed ones and above all how stupid they are vis a vis the 3 per cent bright ones who go onto college and university.

There is a vicious circle, a kind of built-in perpetuation of privilege in the school system, as there is in the social system. Those who survive in the schools and colleges do so because their fathers have the better positions and their sons and daughters will get better jobs because they stayed on in school; their fathers and mothers have all the places of power in government and business and so their children stay on in schools to take over these centres of power from their parents; their parents are well mated with large dowries and endowed property and they will also marry into similar families and become the most handsome bridegrooms and the prettiest brides because they have stayed on in school. Thus the educational system is the monopoly playground of the well to do minority of our society. In return it sustains them and reflects their class values which are handed down from one generation to the next.

### **irrelevant education content and techniques**

The curricula, methods and techniques of our educational system are a reflection of this lopsided social system. We worry about students from the villages, which are the majority sector in the country, being forced to follow an urban based industry oriented curriculum. We are critical of the learning methodology which calls for cleverness in beating the rules and competition, leading to the survival of the most ingenuous. We argue against the teaching methodology which teaches conformity through verbal outpourings and moving demonstrations in an atmosphere of quiescence. We turn away from the evaluation system which is no record of what the students learn but simply of the marks they get.

Here again the education system reflects in the contents of its learning, its methods, techniques and evaluation processes the mores and values of society, to which it has added its own twists and twirls; for the school is the full-time learning institution, while society has, besides learning, other avocations. Hence the perversions of the learning process in the school owe a part of their origin to the school which has added to and improved on the irrelevances it mirrors from society. It has framed a system of learning—curricula, contents, techniques, methods and evaluation—under which those who go through it slowly, laboriously and surely become clerks in the Government, technicians in industry and the extension agents in agriculture, while those who learn to beat the system and finesse the examination, become the political and economic elite of the Country.

All classes have served their apprenticeship in the school—the drop-outs, as hewers of wood and drawers of water, the conformists, as the skilled workers, and the clever ones, as the exploiters. The educational

tools which they use are derived from society but their use and further refinement is the education system's contribution.

### **moral and immoral values**

A fourth crisis point is that our educational system reflects the values and morals of our social system. Just as in society where we have to pay something extra to obtain the cement or sugar or yarn our family consumes, so too in admission to our schools and colleges the student sees his parent or guardian paying an under the cover 'donation' to have him admitted to the institution. Just as we have to have some godfather—a minister, an M.L.A. or M.P. or at the very least a P.A. to a Government Secretary—to be considered for a job, so too we carry so called recommendations from these persons to secure an interview with the principal or headmaster for school and college admissions. Further, to be sure, to get the job, a bribe has to be given, and so too the students see teachers being appointed upon the payment of similar sums of money to the appointing authority. Other more subtle and in some cases justifiable forms of favouritism which are built into our society in the name of social justice—the reservation of posts to scheduled castes and tribes—the safeguarding of the culture of ethnic minorities, the student sees reflected in the school and college which goes one better in reserving seats for what are called backward communities. We are sowing the dragon teeth of casteism and communalism in the early formative years of his life. Our educational system thus, has become the training forum and demonstration centre for the corruption, the dishonesty, the nepotism and the inhumanities which are part of our social system.

### **contradiction between education and educational system**

And so our educational sys-

tem finds itself in contradiction with what education is. Education is learning. Our educational system is memorising. Education is learning how to learn. Our educational system is learning how to conform. Education is the right of every Indian. Our educational system is a denial of education to the majority of Indians. Education is life long. Our educational system is age specific at 11 or 14 or 18 or 21 years. Education is democratic calling for equalising educational attainments. Our educational system is elitist dividing the educated few into intellectual and social hierarchies. Education is humanistic standing for work, truth, understanding, cooperation through its one to one relationship. Our educational system is anti-human or inhuman in promoting intellectual laziness, dishonesty, corruption, egoism based on the principle of each man for himself, the devil taking the hind-most. I regard this antithesis between education and the educational system as one aspect of the perilous position of our society and our educational system. Against this profound crisis gripping of our educational system, what do we do?

### **the way forward: understand the crisis**

The first task is to understand the crisis; that is, the nature, limitations and ills of our socio-economic system. This is for me an essentially educational task and is a prior obligation on our educational system.

Our socio-economic system today involves a structure in which the dominant group is not simply the monopoly houses and the big landlords, nor the capitalist and landowner but people like you and me—the lower middle class. Dr. K.N. Raj, in his Kale Memorial Lecture defined the lower middle class as comprising small proprietors in agriculture, industry and commerce (dependent, to some degree, on hired labour), a wide

spectrum of the self-employed, and those engaged in the professions of medicine, clerical and administrative work and teaching (whether self-employed or working as employees). The criteria for the identification of the components of the lower middle class is that the income of the person should be derived to a small extent from property and a large extent from work. Property here is not only material assets such as land, machinery, commodity stocks, shares and deposits but also what we have come to call human capital. The possession of certain kinds of knowledge and skill in the administrative, managerial and scientific areas places the holder in the same position of earning a rental element similar to the holder of a fleet of taxis, a company share or an urban rural property. It is this group of the lower middle class which holds political reins in each of our States and in the Federal Union, which runs the economic machine of State Capitalism and which is responsible for the gap between professions of equality, social justice and growth and their expression in soaring prices, hoarding and black money and black marketing, the mockery of land reform, the failure of wholesale grain take-over and the stagnant economy. We the majority, and not some large landlords, some giant industrialists or avaricious black money purveyors (except in so far as they are allied to us) are responsible for, and tolerant of, the wheeling and dealing, the corruption and intrigues by which the political and economic machine is kept going.

### **preconditions to educational regeneration**

Having pointed to education's responsibility to analyse the nature and gravity of the crisis of our society which begins with us, with each of us, it is then necessary for education to help us study where we go from here. It could be in any one of several

ways which I will broadly classify into two paths. One is to do nothing and allow the mounting contradictions in the system to move us farther away from the values of justice, liberty, equality and fraternity that we embodied for ourselves in our constitution. The other alternative is to work towards a system under which political power will be shared with the rural masses who are now kept out of it and the socio-economic system move in the direction of their participation in all decision making processes, involved in establishment of strategies, in the elaboration of policies and in formulation of plans as well as in execution of projects. I need not say that I very much hope that we will move in the second direction. But to do so there are three rather serious and somewhat sombre preconditions.

The first is that we of the lower middle classes must be prepared to shed our current monopoly positions of power and our alliance with, and tolerance of, the forces of reaction and accept sharing power with the poor numerical majority. We of the lower middle classes have successfully carried out the renovation of wresting power from the capitalist classes and the higher castes but we have also seen to it that the renovation stops at us. We have managed to change our socio-economic and political pyramid by moving everything from the top to the middle. We have spotlighted our monopoly houses and established curbs on them, we have abolished the princely order and nationalised our financial barons and removed our large landlords or made them exist under benami conditions and elected ourselves to the Lok Sabha, the State Assemblies, the Panchayati Raj institutions, the cooperative managements, etc. The bottom of the pyramid is still where it was and has not shared in this revolution. It is this revolution which

we must now extend to include the poor majority.

Second, the poor majority—particularly the currently unorganised, disinherited, dispirited rural poor—must be organised to participate in society and share in its power centres, its economic processes and its cultural expressions. It is important here to remember that political participation is not coterminous with the exercise of political power. We have a society in which sixty per cent of the people exercise their right to vote but only the same small select group have the entry to the elective and appointive offices of power and decision. We no longer accept caste as a legal or social norm, we have now committed ourselves politically to removing all forms of privilege leading to inequalities. Now, these normative positions of ours must be translated into realities and that calls for the organisations of the poor majority for political and social action and decision making.

Third, the educational instrumentality should be reshaped and renovated as a means of bringing about this society. All these three preconditions are in our hands and it is our inescapable responsibility to help to bring them about if we are to move towards a progressive, peaceful and just society.

### **autonomy of educational process**

But earlier I took the position that the educational system is just as good or as bad as society. It is true that the educational institutions, educational content, educational techniques are conditioned by the nature and stage of development of the society of which they are parts. And when we talk of the need to functionalise education, to make curriculum reflect our rural and urban realities, in other words, to rid ourselves of the foreign models on which the system has been built by making it a more

faithful mirror of our own society, we must be aware of this danger; of the educational system reflecting the stagnation, the shoddiness and the sins of the social system. While the educational system faces this parameter of being a part of current society—as far as ills, weaknesses and limitations are concerned—without reflecting or, as Dr. Zakir Husain put it, through perverting the strong points of our society, education as the process of learning faces no such constraints. Education is autonomous in the sense that the learning process can function anywhere, gives rise to new and innovative models and can meet squarely the challenges of what has been described as the revolution of rising expectations of our poor countries or the richness syndrome of the industrially advanced countries.

### **out-of-school education as the learning process**

One such educational emanation is the new form of Adult Education which I prefer to call by the more generic title of out-of-school education, which others also term as non-formal or informal education. But right at the start I must confess that I am not satisfied with any of these terms starting from Adult Education on to out-of-school or informal education because of their question begging nature. They imply an educational dichotomy between the child and the adult, between school and the farm or factory, between formal institutionalised instruction and non-formal deinstitutionalised learning. In terms of institutions and, of course, in course content there are distinctions. But the educational discovery, or rediscovery, of today is the unity or oneness of education—as the learning process, continuing, never ending and individually and socially responsive.

It is the use of education as the learning process that I regard as one significant solution to our social and educational crisis. Its

clientele is the poor majority—the drop-outs and push-outs from our school and University system, the illiterate rural masses who constitute seventy per cent of our society, the organised industrial workers who are continually battling to relate their earning to escalating prices, as well as the students imprisoned in our schools and colleges, we of the professions,—the educators, scientists, the engineers, the doctors and nurses, the administrators and the politicians, and the capitalists and large landowners. This continuous learning process is open to all in our society. It is universal and can be denied to an individual or a group only by neglect or manipulation. There is no need here for establishing priorities or a time path except in relation to the majority who have to be started now on the need to learning.

The content of out-of-school education, as noted earlier, is varied, variegated and disaggregated. The learning content for a school or college drop out around the skills of communication, computation and reasoning in his work or home situation, will be different from that of an illiterate farmer and agricultural labourer who must also learn skills of his occupation and those called for by the imperatives of economic and political participation in his society at the village, State and national level. In fact that disaggregated curriculum will follow the individual learning path and aptitudes of every individual. That is the essential humanism of out-of-school education. The curriculum unit is not a gaggle of boys and girls sitting in a class room, not the morning shift of factory workers meeting for vocational training, not illiterate adults assembled in a functional literacy course, nor women or youth groups going through special programme but the individual men or women. Such a curriculum has to be innovated

and imagined and is subject to constant renewal and change.

Its teaching technique and learning methodology is one of dialogue and not discourses, of discussion not of ex-cathedra pronouncements, of the multitudinous means of self learning and not imposed instruction. In this setting there is no real division between teachers and taught, the learners and the learned. Every one is learning something all the time and feeding back the results—positive and negative—into the system of methods and techniques. This makes impossible imposition of any ideology, except the ideology that every man is a thinking, teachable, learnable individual, an individual who is endowed with rights which he has been deprived of an individual who thus becomes conscious of his rights and the need to exercise them fully, freely and responsibly. Out-of-school education is thus inherently human and deeply democratic.

Its evaluation procedures are similarly as continuous and continuing as the learning process itself. There is no point of time where the evaluation of learning takes place or leaves off. The evaluation of each piece of the learning process is on going and takes place during and at the end of every learning cycle. Its expression is not a diploma or certificate which divides people into the successful and the failures and grades the successful into a hierarchy of privilege, but the actual work turned out—whether it be in improved agricultural practice, or ability to use a sophisticated machine, or capacity to organise into groups in order to participate in the country's political processes and economic and social decisions. Out-of-school education thus enables each learner to break through the constraints imposed by examinations and their accompanying diplomas and degrees which are probably the most serious denial and defeat of the learning process, and to participate in a

system of evaluation which sets him further forward on the learning path.

There is also an immediate rescue operation for our school and University products that out-of-school education must engage in. Earlier I referred to the unemployables that our school and University system is turning out. The 5 lakhs educated employment generation scheme launched this year by the Union Government begins with the tragic admission: "a large majority of the educated unemployed turn out to be really unemployables." Hence about 60 per cent of the Rs. 100 crores budgetted for the programme is being allocated, on the basis of schemes formulated by the States, for the training and retraining of the matriculates, graduates, and post-graduates to make them employable. Over half the number, that is around 2.8 lakhs of 5 lakhs of the educated unemployed, are being put through ground level orientation—which means first deschooling them, and then educating them to make them acceptable in the employment market. Such is the immediate first aid ambulance operation which out-of-school education is being asked to perform—to undo the damage done to its products by our educational system. All over the country, in every State and Union Territory, new and innovative education and training programmes have been launched outside of the schools and colleges, inventing the course content, using the pedagogy of the factory, office and market place, and testing the trainees continuously in terms of the particular life situation which they are planning to enter. I leave you to imagine what these men and women think of the educational system which has crippled them, and the out-of-school system which is rehabilitating them. Here is one of out-of-school education's immediate functions, the function of rehabilitation of the majority of men

and women who have passed through the school system. But I wish to point beyond this immediate service function of out-of-school education and refer to its potential for saving the school system itself.

Probably the most important facet of out-of-school education is its fall out effect on the school and college system. There is a kind inverse Gresham's law at work here whereby good education drives out bad education. No country, no society, runs two parallel educational systems in the long run. One merges into another. What we need is to make a start on out-of-school education, because once we do that, its content, its techniques, its evaluation system and its end purpose can begin to be fed into the school system and help in the latter's renovation and restructuring because it has helped society itself to change from a stagnant to a dynamic system, from a closed class ridden sub system to an open participatory community. This fall out effect on the school system will be all pervasive. The work oriented vocational bias of out-of-school education which takes people at the point of whatever work the learner is engaged in and develops learning system out of it and through it onward and forward will help school education develop a similar work and vocational bias without imposing on it as it has done in the basic schools in the past artificial work situations, what Zakir Husain called mechanical work situations. Out-of-school education's learning methods which I have earlier described as learning how to learn will help the school replace or at least supplement the element of compulsion which forces the student to abandon what he wants to do in favour of the immobility and boredom of the school by linking learning with his needs, desires and aptitudes. It will help the school turn around and scrap its various small hordes and piles of fixed

information and immutable knowledge called syllabus, and replace it by a wide ranging, varying, changing, and growing learning process where the ability to understand, to analyse, to seek and search and the link between the general and particular become decisive. In this again the learning process in coverage is practical—it is the practice of analysing, of seeking and searching. It becomes a reflex and a habit with the subject. For this the master-pupil relationship is replaced by that of partnership in which everyone is receiving and giving—receiving the substance of learning and giving from his thoughts and his experiences. It demonstrates how the school's selection and evaluation system, which as we have seen is an ideological and actual smoke screen of so-called merit but whose reality is the perpetuation of privilege, can be replaced by an open system in which failures in examination and rejections by society are absent and where society first and the education system as a consequence are wide open to all for study, training, updating and professional renewal.

### **out-of-school education as the curing process**

That is why I look to adult education which in this lecture I have broadened out to range over all forms of out-of-school education to instill in us the will to act. And that is what we are lacking. We know what is profoundly wrong in our educational system. We have time and again over the past fifty years established a comprehensive diagnosis of our educational malady. This diagnostics is almost complete. I say almost in that we have not always traced the disease in the educational system to the disease in our social system. This gap we are now filling. We also know what kind of educational renovation and regeneration we need.

We had this charted for us by the Zakir Husain report on basic National Education in 1936, the (Radhakrishnan) report on University Education in 1948, the (Lakshmanaswamy) report on Secondary Education in 1954, the (Kothari) report on Indian Education in 1966, the report of the Indian Adult Education Association round table on life-long integrated education in 1968, the National Policy resolution on education in the same year and in the most recent report, Towards a Learning Society, established in 1972 by one of our States—Tamil Nadu. On the broader socio-economic front we have charted the way forward, the next step that we should take—in the report—the Approach to the Fifth Plan—which sets forth the strategy and programmes that would lead us on to a free, just and productive society through a direct attack on the forces of inequality and under development that are shackling us. All the conditions for a move forward—an agreed diagnosis and an accepted prescription—are thus present. What we need is the will to act. And it is to the generation of this revolutionary spark—the will to act—that I look to out-of-school or adult education, with its tradition to fight against using education to continue the past unjust social order, to accept instruction as the means of ensuring conformity and assimilation into a stagnant culture and elitist social system. I look to it to build in place an open questioning, productive system marked by the continuous struggle for learning, which is acting on the principles of a real and effective democracy. Only there is now no time to lose. We need now to act.

# teaching effectiveness of programmed instructional materials for adult basic education

D. Barry Lumsden

*IN India production of instructional materials for adult literacy and other adult education programmes is quite substantial. Most of the material is, however, either untested or unsatisfactorily tested. This brief paper is being published to acquaint the agencies and persons concerned with production of instructional materials about the kind of procedures being adopted in USA for testing the validity of instructional materials.*

## introduction

In the United States there are three million adults who, for a variety of reasons, cannot read. Another twenty million adults who can read perform at a level so low that they may reasonably

be described as functionally illiterate.

For many years educators have sought solutions to the problems of adult illiteracy. Of particular concern has been the identification and use of instructional materials uniquely designed to meet the needs of undereducated adults.

The field of adult basic education has been deluged with instructional materials that are empirically untested in terms of their actual effectiveness. Even in the relatively sophisticated area of programmed instruction, adequate validation data are lacking for the large majority of programmes. For example, for only ten of a sample of fifty-six programmes for teaching adult basic education students to read do the publishers indicate the availability of data pertinent to teaching effectiveness (4). In those cases in which data are available, claims often fall short of standard validation criteria specified by the Joint Committee on Programmed Instruction and Teaching Machines (1).

The unfortunate situation, then, is that the purchaser of adult basic education materials typically must select materials on the basis of publisher's claims and subjective reviews rather than on the basis of empirical evaluations. Dr. P. Kenneth Komoski Director of the Manhattan-based Educational Products

Information Exchange Institute, recently stated that the "largest single group of unprotected consumers in the United States consists of millions of students who are now with more than 200,000 poorly-tested textbooks, films, teaching machines and other complex learning gadgets" (2). Komoski estimates that 99 per cent of the nation's teaching materials have never been systematically evaluated on the basis of the amount of student learning. This lack of rigorous field-testing of instructional materials is not, however, due to our inability to perform the task; on the contrary, a variety of techniques for empirical assessment are available.

## materials development

Subsequent to the receipt of a grant from the U.S. Office of Education, safety in the home was selected by the staff of the Adult Learning Centre as a subject matter area for which materials are appropriate to the needs of undereducated adults. The concepts judged by the Centre staff to be pertinent to the subject were developed into three linear programmed booklets and prepared for an initial field-testing. The booklets included three elementary, but very important areas of safety; (1) General Safety in the Home, (2) How to Prevent Children's Accidents in the Home, and (3) Preventing Accidents of Older Adults in the Home. Objective-type curriculum-embedded achievement tests were developed to accompany each booklet. These instruments were used as measures of student achievement in the initial and final field-tests.

During the early spring of 1971, the Centre entered into a cooperative arrangement with the Roanoke, Virginia-based Institute for Research on Human Behaviour to conduct the initial field-test of the materials. The primary purpose of the agreement with the Institute was to provide the materials with an objective, independent evaluation.

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Seventy-nine undereducated adults enrolled in adult literacy programmes throughout North Carolina and Virginia participated in the field-testing of the programmes. Students were drawn from three sources: (1) those adults who voluntarily participated in the Adult Learning Centre's Programmed Learning Laboratory, (2) adults who voluntarily participated in adult basic education programmes offered by technical institutes and community colleges throughout North Carolina, and (3) individuals participating in the WIN programme, a federally-funded antipoverty programme for welfare recipients. Students in the field-tests were adults 16 years of age and older with a formal education of less than eight years. The mean age of the students was 26.3 years.

All students participating in both the initial and final field-tests were administered the achievement tests as pretests of entering content mastery. Instruction was individualized inasmuch as students were free to work in the programmes at their own rates of speed. In neither field-test was there the intervention of a proctor or instructor. As students completed their programmes, a second curriculum-embedded test was administered as a posttest for achievement.

## results

According to McGuigan and Peters (3), the single best index by which to empirically assess the effectiveness of an instructional programme is the *G*-ratio, a statistic which measures amount of learning and whose positive value varies between 0 and 1. *G* is defined as the ratio between amount actually gained and amount that could have been gained, as shown by an achievement test. While it is obvious that higher *G*'s indicate greater amounts of learning, McGuigan and Peters have arbitrary (and tentatively) established a criterion such that programmes yielding a *G* of less than .50 are

generally considered to be ineffective programmes.

The formula for computing *G* is:

$$G = \frac{\text{Actual Gain (Posttest minus Pretest)}}{\text{Possible Gain (maximum possible score minus Pretest score)}}$$

Because *G* is a ratio, the amount that can be gained is not artificially restricted for students who perform at a high pretest level; similarly, the amount that can be gained is not artificially inflated for students who perform at a low pretest level.

Initial and final field-test *G*-ratios for students who studied the programme specified appear in Table 1.

**Table 1**  
**Learning data from Field-Tests of Safety in the Home Programmes**

<i>Time of Field-Test</i>	<i>N</i>	<i>G</i>
Initial	38	.40
Final	41	.58
Total	79	—

Using *G* = .50 as the criterial level, it is evident that the Safety programme was instructionally ineffective at the time of the initial field-test. In its report to the Centre, the Institute for Research on Human Behaviour concluded that the programme was a potentially valuable and successful programme. The Centre accepted the Institutes recommendation that the programme be revised and field-tested again with a view toward making it available to adult basic education students throughout the country.

During the fall of 1971 and the spring of 1972 the programme was revised based upon the find-

ings of the initial field-test. The materials were again distributed to operational adult basic education classes and field-tested in the early fall of 1972. The second, and final, field-test was conducted in precisely the same manner as the initial evaluation.

Again, using *G* = .50 as the criterial level, it is evident from the data in Table 1 that the Safety programme was instructionally effective at the time of the final field-test. Based upon these findings, the Adult Learning Centre is presently pursuing with a number of publishers the possibility of having the programme commercially produced and nationally disseminated. For this reason, the Centre is in no position to make available quantity copies of the programme. If and when the programme does become available for national distribution, purchasers of the programme can be assured that their adult basic education students are studying research-based programmed instructional materials, at least in the broad subject area of safety in the home.

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# centre for continuing education, the Australian national university, canberra

THE Centre for Continuing Education, usually known as CCE, was among the first of the increasing number of units and centres, existing or in process of formation, which are quietly transforming the form and eventually perhaps the character and identity of the University. The Centre has been in business four years, succeeding a small Department of Adult Education which had its origins in the Canberra University College and then the School of General Studies.

Tempting though it is to claim wisdom and vision over the change of name, in truth both 'Centre' and 'Continuing Education' have acquired a sense of the appropriate only dimly recognised by the Director at the time.

Centre is accurate because it is an arena within which a number of disciplines contributing to the study of the education of adults are drawn together around the activity of providing learning opportunities for adults. The disciplines presently include philosophy, history, psychology, social psychology, sociology and organisation theory. Most of the exponents of these disciplines as applied to the field of continuing education are also educated, or trained, in the study of education itself. The University is mindful of the division of academic study into subject disciplines, watchful of the academic rigour of its work, and inclined to seek guarantees for this through a subject/department structure. In 1969, and still in 1973, it proves unrewarding to argue that continuing education can be a discipline and as such the proper business of the University. This

is so only because there do not exist academic departments with undergraduate courses onto which graduate study and research can be grafted. Designation as a Centre allows the possibility of multi-disciplinary study legitimately and fruitfully applied to the phenomenon of continuing education and to the social, political, pedagogic, philosophical and other questions which it presents.

The term '*continuing education*' appealed to the Australian National University in the context of recent hostility towards adult education from the Australian Universities Commission which has defined it—not very carefully—as being sub-degree work. 'Continuing' had—and has, especially in North America — connotations of graduate level refresher-type extension activities which some now describe as quaternary. This gave reassurance and some security. In practice the term is employed by the Centre to embrace the much wider concept of 'education permanente' or lifelong learning. These terms, and the concepts they embrace, have more currency outside Australia, and notably in Europe, than here. A more recent comer, and one favoured particularly by OECD through its Centre for Educational Research and Innovation, is 'recurrent education,' which has recently acquired 'official' Australian acknowledgement and support in the Report of the Interim Committee for the Australian Schools Commission (the Karmal Report). In the words of that Report (under Recurrent Education) "the concept of lifelong education covers all types of post-school

education and envisages a withdrawal of people from the workforce from time to time.... It embraces all the formal and informal ways in which the community provides opportunities to its members to take part in activities considered valuable...."

This is not to imply that CCE tries to provide all types of post-school education. Rather it defines its field of inquiry as an academic unit, while making selective provision of courses and other learning opportunities in ways held appropriate to the National University. Seen thus, continuing education provides a philosophy, rationale and framework for a radical critique of existing formal and informal education systems and processes. Leisure-oriented adult education familiar in the Australian and British tradition embraces only one aspect of the educational provision and social processes with which the Centre concerns itself. Taking as a constant, unpredictable and accelerating multi-dimensional change, the Centre interests itself in problems of individual adaptation (learning to learn) and the adaptation and renovation or organisations, including such educational institutions as schools and universities.

It confesses to a set of values which hold active, participative learning and citizenship preferable to passivity as a victim of change, preferable to a sense of alienation or anomie.

Without taking up any position about change itself (not that it is good or bad, just that it is) it seeks to equip its students, whom it refers to sometimes as clients, more often as participants, to understand the world around them, their own part in it and their ability to interact with it. Thus they may *proact* rather than merely *react*, and learn the art of anticipating change and planning for it.

Since it is a university department with a national brief and limited resources, it is thus also a department of management in the sense that much of its provision

is for managers of the human capital and natural resources of the Australian community.

This may have taken the Centre beyond the intentions of its creators, though its terms of reference were generously open, presumably to allow just such an exploration and progressive definition of purpose and role as has occurred. As a University unit concerned with the study and practice of continuing education, the Centre is *sui generis* in Australia and appears in its particular emphasis and mix, at least unusual, perhaps unique within the Commonwealth countries and Europe. (It is likely that close analogies exist in the United States, but none have been identified). Partly this is because it acknowledges the active relationship between education and society, and seeks to understand and act on that understanding and relationship. CCE is unusual in asserting that education is value-laden rather than value-free, and in exploring the hazards of that recognition. In style it seeks to remain small and flexible, to measure attainment by responsibilities effectively taken on by others rather than by the size of its own programme. Much effort goes into trying to understand the social map of Australian society, the network of influences and communications of which the Centre and the University are part, and the critical points at which educational intervention will best disseminate through the system.

Values apart, the Centre believes that persons and the social fabric alike require that education be radically reordered to meet their needs. Continuing or recurrent education suggests that the normal pattern of life experience may case to be school (including full-time tertiary education) followed by work (broken for women by child-rearing) followed by retirement, with increasing part-time recreation injected into the work phase for the less highly paid members of society. This is not the place to elaborate on the options; suffice to say that most

of them imply a major or fundamental restructuring of tertiary educational experience and of the teaching role of the universities. Social and individual needs are likely to prove so compelling that institutions not able to adapt will be rejected or forced by social or political pressure to change. Hence the Centre's interest in working with the leaders of organisations of many kinds to find ways whereby they can become more responsive to change, without loss of identity and mission, and able to provide better learning environments for the continuing education and growth of their members. What goes for organisations goes also for individuals. Because pathology can result from individual as well as organisational maladaptation, the Centre finds its bedfellows among those who study planning, organisational and social structure and processes. At another level, they are found among social workers and therapists, particularly those of a positive, preventive and community orientation. For the Centre, the educative or learning society is also the deschooled society; what this really means in practice lies close to the heart of our academic quest.

The assertion that the Centre is organisationally distinctive is best substantiated by illustrating its activities. It is a provider of teachers using such internal resources of the University as can be made available for this purpose (extension function); a designer of search conferences to assist groups to understand and 'proact' to change (scanning or search function); and a unit devoted to understanding and teaching about the processes of continuing education itself (academic function). It has a national and also local responsibility and clientele. It pays special attention to the learning-teaching processes (including the context or environment for learning in and out of educational institutions). In this capacity it acts as consultant or adviser to other institutions having an educational purpose. While many adult edu-

cation and extension departments lay claim to this and a wider diversity or functions—especially since some are massive compared with the Centre—the mix is unusual. Massiveness itself militates against the Centre's ideal, for it seeks through its own operations to model the adaptiveness and responsiveness which it teaches.

Unlike many North American departments it prefers to hold together the extension and academic functions believing that the cross-fertilisation justifies the latent schizophrenia and hyperactivity which members of the Centre feel. Again, unlike a number of British and Australian departments which seek the same mix, it takes seriously its academic task and assigns time and effort to the study of continuing education, through reflective writing and empirical studies of operations of which it is a part. While other institutions (Rand, Tavistock) are deservedly much better known for their search (or think-tank) achievements, the Centre is unusual in working from a base of University extension at such a task. As well as being an educational entrepreneur in the business of buying and selling academic-based knowledge and skills, through courses designed by other University departments (or by the Centre in consultation with both teachers and learners) the Centre is also an applied behavioural science unit. Through action research it treats itself as part of its academic subject matter.

It is sometimes asked whether the Centre is 'academic'. (Also, very often, and not least by internal colleagues, whether it is a part of the University). We believe the answer to be yes, but weary of arguing the case when the word itself is ambiguous and not innocent of connotations. Rather, members of the Centre now seek to describe and explain what they do, both in teaching and research, as well as negotiation and consultation, leaving it to others to determine if their

understanding of academic embraces this.

Organisationally there is an ambiguity because, to give it detachment and equality of access, the Centre is part of neither School nor Institute but answers directly to the Vice-Chancellor who is assisted by an Advisory Committee drawn from both parts of the University. Lacking an academic roof over its head, it is often linked in University minds with central administration, although its senior staff mostly hold conventional academic appointments. If detachment means marginality this is yet perhaps a proper position for a unit committed to understanding the ambiguity of change; it matches the imagery of the peripatetic troupe or wandering salesmen which suggests itself to staff when away in the field from time to time.

Space does not permit a full catalogue of activities but a few may illustrate the range. Believing that the University should be a resource centre for learning rather than a process operation for lock-step teaching (it will never be either in pure form) the Centre has introduced a scheme whereby relatively senior persons from industry, the public service and the professions may visit the campus for self-directed study for periods of a few weeks, using the resources of the Library and of such individuals and departments as are willing and able to assist. This is seen as a more appropriate form of continuing education for some persons than either the Centre's programmed courses or the coursework higher degree which is itself a response to emerging need, complementing and sometimes partly displacing the University's system of research degrees.

Search conferences by invitation to individuals in key decision-making roles, or with important experience to bring to bear on a problem or field, have examined questions as diverse as the role of the registered clubs of New South Wales,

Australia's relations with New Zealand community development in Australia, the planning of tertiary campuses, the employment of graduates, Aboriginal adult education and the professional satisfaction of high school teachers. A second bi-partite examination of the future of industrial relations is in preparation, along with search conferences on technical education and Australia's defence policy. The Centre has assisted the Post-graduate Committee in Medicine to conduct national searches into resident medical training and the financing of continuing medical education.

Central to the process is identifying questions which will define the agenda or programme and identifying the main parties or actors, from whom will be drawn conference participation. Necessary information is, where possible, predistributed; contributors take part as resource persons working alongside other participants, rather than as lecturers. Often it is not clear who are the resource persons; rather the conference is a context for mutual education and perhaps problem-solving through dialogue, universities teachers being among the participants.

Naturally this refers mainly to the exercises in which the Centre is the designer and provides directing staff. Where an internal department has the expertise and subject-matter, as in intensive language programmes the Centre acts only as entrepreneur and, where encouraged, as colleague/adviser on design and method. It is expected that the programme of both "liberal" and "professional" courses (a distinction which the Centre rejects in principle and finds often misleading in reality) extending the University to the Australian community will gradually expand, and with it the Centre's entrepreneurial service and staff.

The scanning/search function will probably remain at much the same level, though with increasing discrimination as to

areas and forms of provision. What may look like opportunism will, increasingly one hopes, continue to be informed by an understanding of educational and social process and change. In 1973, for instance, much energy has gone into work in the Aboriginal field, especially seminars and orientation programmes for staff of the Department of Aboriginal Affairs working in the Northern Territory. This was decided upon both because the work has intrinsic interest for the student of continuing education and social change and because this was seen as a critical time in the history of white-Aboriginal relations.

If little has been illustrated, perhaps enough has been written to show that the Centre is indeed a part of the University and that it is more than an administrative extension service for departments which care to call on it to make room reservations or prepare publicity.

In the future it will seek in a discriminating way to bring teaching and research services in continuing education to neighbouring countries. It will foster serious and sustained research into continuing education in Australia, and seek to become a national staff college arranging short courses for the educators and trainers of adults. At present it seeks to assist the teaching profession mainly by being deliberately experimental and by reflecting aloud on its experience. Like other and newer centres it might be held to affront the identity and mission of the University by its definition of research and its orientation to the community. In the Centre it is seen otherwise. Believing that the University has a diversity of purposes, not always easily reconciled, it also holds that a shift in emphasis towards the needs of Australian society would strengthen and enrich the University community and its work rather than threaten its academic integrity.

—C. Duke

# selective perception and adoption behaviour of adult farmers

N.P. Singh

C. Prasad

**N**O two persons are exactly alike. Within the behaviour of single individual one may very well discover consistencies which are not found in other people and one may adduce the law which these consistencies obey. But one can also find general laws that apply to all individuals of a particular category. As such the selective perception of individuals can also be generalized for a particular category.

The present study attempts to understand the phenomenon of perception amongst heterogeneous groups of farmers and its consequence on their adoption behaviour. Farmers above the age of twenty one years (the age for adult franchise in the Constitution of India) fully engaged in

farming have been selected for the present study.

Past studies revealed that farmers have developed a mental process that enable them to reject information that does not square with their world view. They expose their mind primarily to those sources of information that would reinforce, not oppose, their opinion or the perceived credibility.

## problem posed

Above selective perception of adult farmers determines as to which of the sources with appropriate message should be more used by them as compared to other sources and how far they might fall in conformity with their adoption or acceptance of that message. This adoption refers to their mental process starting from their awareness after hearing a message to the stage of its ultimate adoption; the other stages-interest, conviction and trial being in between the two.

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Several communication sources used for dissemination of farm information do vary in their capacity of enforcing learning experience to the farmers about a particular innovation. Susceptibility and selective perception of adult farmers towards the various communication sources reveal an unfabricated net work of communication approach to them. In fact, their selective perception about the sources constitutes their knowledge of the existing communication sources and its credibility. How the different age-groups of adult farmers perceive about the communication sources in different social setting? How far their credibility perception of the sources and knowledge about the sources are influencing their adoption of improved technology? Do they have any relationship with certain other socio-psychological variables and if so, to what extent? Some of these questions and possibilities have been explored in the present study.

The project was undertaken in Shahabad, an Intensive Agricultural District Programme (IADP) district in Bihar. Size of sample taken in two types of villages, viz., progressive and non-progressive, was the 20 per cent of the total farming populations in each village. This communication study was made in the context of two agronomic practices first, use of high yielding varieties of paddy seeds and second, application of nitrogenous fertilizers. The communication process has been analyzed with reference to the communication sources and credibility perception. The study also analyzes the adoption behaviour of the farmers in relation to the communication processes.

### interpretation and findings

#### (a) Knowledge about the Communication Sources:

The study indicated that adult farmers had limited knowledge about the communication sources in respect of high yielding varie-

ties of paddy seeds in both the types of villages. Contrary to this, under similar situations they had higher knowledge about the communication sources in respect of the second agronomic

practice. Variations in subject matter or specific agricultural innovations need to be cautiously considered for the utilization of the communication sources.

**Table 1**  
Average knowledge mean scores (of communication sources) of three age-groups of adult farmers

Village/Age-group (Years)	21-30	30-45	Above 45	Calculated 'F' value
Progressive village (PV)	62.45	47.98	39.29	12.3*
Non-progressive village (NPV)	42.70	36.54	33.73	18.5*

\*Significant at 1 per cent level.

Table-1 indicates that the age group 21 to 30 had the highest knowledge mean score (62.45) followed by the age group 30 to 45 (49.98) in progressive village. The mean knowledge score of adult farmers about the existing sources (of their locality) in non-progressive village was founded less under each age group but in this case also 21 to 30 had the highest

(42.70) score followed by middle group (36.54).

#### (b) Credibility Perception:

Selective perception of the adult farmers about the communication sources credibility in two types of villages varied significantly except in the age group above 45.

**Table 2**  
Differential credibility perception of adult farmers about sources in progressive and non-progressive village. (Ranks obtained by sources)

Sources/Age-group and Villages	21-30		30-45		Above 45	
	PV	NPV.	PV	NPV.	PV	NPV.
1. Demonstration.	3	1	6	1	3	2
2. Radio.	7	9	3	4	7	7
3. VLW.	2	3	1	3	1	3
4. Agl. Ext. Officer.	1	2	2	6	4	6
5. Cooperative.	6	6	5	5	5.5	4.5
6. Self-experience.	5	5	7	7.5	2	1
7. Magazines and Newspaper.	10	10	8.5	10	9	9
8. Friends and neighbour	4	7	8.5	2	9	9
9. Krishi goshti.	8	4	4	7.5	5.5	4.5
10. Leaflet and Poster	9	8	10	9	9	9

Calculated rho (e) value (Spearman Rank Correlation)

.43

.36

.81\*

\*Significant at 1 per cent level of probability.

Non-significant rho (e) value obtained in the age-groups 21 to 30 and 30 to 45 revealed (see table 2) that there was no agreement between the two types of villages on the communication sources credibility (trust worthiness and expertness).

There was not much difference in the opinion of the age groups 21 to 45 about the VLW and AEO's (Agril. Ext. Officers) credibility in progressive village. Although these agencies had got lower rank under each group in non-progressive village. Adult farmers above 45 ranked self-experience as the first and rest of them perceived demonstration as the most credible source. Rather much variability was observed in case of ratio. In progressive village, the age group 21 to 30 and above 45 gave seventh rank to radio where as the same was ranked third, by the middle age group in the same village.

The findings further concluded that in general credibility perception of sources was not associated with the size of holding and social participation of the adult farmers. However, city contact of the farmers was positively related with credibility perception of magazines and newspapers. Likewise, demonstration was perceived as a credible source by those who had a frequent town contact.

#### (c) Adoption Behaviour

For analysing the adoption behaviour of adult farmers two aforesaid agronomic practices were selected which were measured in terms of their tangible adoption. The age group above 30 to 45 had the highest mean score (25.99) and 23.88) in progressive and non-progressive village respectively.

## analysis, implications and suggestions

Thus, the above findings imply that socio-psychological factors which govern the selective perception of the adult farmers about the communication sources do vary from message to message (practice to practice) and for the same source similar socio-psychological variable may not operate well to determine its (source) credibility in case the content of the message is changed. Another interesting conclusion drawn from the over all findings implies that selective perception of adult farmers about the credibility of the sources have a little to do with the adoption behaviour except in case of few sources (viz. radio, AEO, magazine and newspaper and self-experience). There might be some relationship between source utilization and adoption behaviour which need further investigation. However, credibility perception of sources being related directly or indirectly to the adoption behaviour implies that this consideration needs to be kept in view by planners and educators while designing a communication strategy for diffusion of innovation among adult farmers.

The educators engaged in functional literacy and other extension programme could approach the age group 21 to 45 for the most constructive end, but not with secondary communication sources or the sources which are of localite nature. The adult educators may take a decisive step in formulating their teaching plans for this group of learners with a combination of selective communication medias. Such considerations would facilitate the implementation of various developmental programmes of social education and thereby help continued or early adoption of new technology by adult farmers.

Table 3

Mean adoption scores of three age groups of adult farmers

Villages/Age-group (Years)	21-30	30-45	Above 45	Calculated 'F' value
Progressive village	25.69	25.99	25.67	1
Non-progressive village	18.22	23.88	16.57	14.4*

\*Significant at 1 per cent level of probability.

But the adult farmers above 45 had the least adoption score in all the cases as compared to other age groups, although result was statistically significant only in non-progressive village.

During the course of further analysis adoption behaviour was found positively related with the farmers' credibility perception score of radio, AEO (Agricultural Extension Officers) self-

experience and friends and neighbour irrespective of the village categorisation. Simultaneously, their adoption behaviour was found positively related with many other selected socio-psychological variables viz. education, size of holding, irrigated area, social participation, city, market and town contact, innovation proveness and their knowledge about communication sources.

# advantages of literacy as perceived by adults attending adult literacy centres in patiala circle

Tajinder S. Nanda  
Jatinder K. Beri

## methodology

THE present study was designed to find out the advantages, as perceived by the adults, of literacy attained in literacy centres. The sample of the study included 100 male and 100 female adults attending adult literacy centres in Patiala Circle, Punjab. To obtain the necessary information, the structured interview technique was used. Adults were contacted in the adult literacy centres during the month of January, 1973. To find out as to what the adults think to be the advantages of obtaining education in literacy centres, they were required to indicate the uses of attaining literacy skills by choosing one or more uses out of the thirteen provided by the investigator.

## the sample

Of the sample 50 per cent of the adults were between the ages of thirteen and sixteen. Less than 8 per cent of the adults were above the age of thirty. Whereas majority of the females (78%) sampled were below the

age of eighteen, in the case of males, only 41 per cent were below that age.

## findings

The table below presents the responses of the adults indicating the uses of literacy attained in literacy centre as perceived by them.

## conclusions

Thus the present investiga-

tion reveals that the main advantages of attaining literacy in the literacy centres as perceived by the adults include increase in knowledge (58.5%), help in sewing and embroidery (95% among females), help in attaining further education (44%), help in agricultural production (36.5%) and help in domestic affairs (31% among females).

Advantages of literacy as perceived by the Adults attending Adult Literacy Centres

<i>Areas</i>	<i>Male</i>	<i>Female</i>
Agricultural production	62	11
Economic use of money	41	31
Increase in general knowledge	57	60
Knowledge of right to vote	6	5
Knowledge about civilization	—	—
Help in attaining further knowledge	52	35
Reading religious books	2	11
Development of village	18	7
Cleanliness of village	9	6
Knowledge about working of Panchayats	14	1
Health Education	1	8
Help in domestic affairs	—	31
Sewing and Embroidery	—	95

The authors, both from the Punjabi University, Patiala, are thankful to Amrit Kaur, M.A. Ph.D. (Calif) for her valuable guidance in preparation of this paper.

## seva mandir

**S**EVA Mandir, founded by Dr. Mohan Sinha Mehta is a voluntary organisation working in the field of adult education and adult literacy since 1966. Seva Mandir looks for opportunities to build among people an atmosphere which will promote human and social values in relation to the trends, needs and problems of society.

Seva Mandir is attempting to involve a large number of persons interested in continuing education in the city of Udaipur through the following activities:

**Discussion Group:** A group of intellectuals who meet and discuss the social, economic and political problems at national and international levels.

**Mahila Sabha:** Women's organisation for cultural, educational and vocational education.

**Youth Group:** This group organises social work programmes for its members and attempts to involve the young boys and girls in colleges and universities in constructive activity.

**Amateur Dramatic Society:** The members of this group are concerned with developing interest in drama and music and to use these media for social-awakening.

**Elderly Persons Association:** The emphasis is on the creative use of leisure.

**Continuing Education for Harijan Youth:** Three literacy and post literacy centres are being run under this programme in the Harijan Colony of Udaipur city. Apart from literacy, there is considerable emphasis on sports and recreation.

On the rural side four significant programmes have been in operation:—

**Badgaon Literacy Project:** This is being organised with the assistance of World Literacy of Canada. The objectives of this project are to eradicate illiteracy in Badgaon block by 1977 and to impart to the participating adults literacy skills of sufficiently high order to make it functionally useful. The project envisages making 26,000 adults literate.

4,000 adults were made literate by the year 1972. The number of literacy centres at present is 74 and the number of learners is 1,517 (1,283 males and 234 females).

Some of the salient features of this project are that literacy programme is taken up in a village only on the request of the panchayat concerned which is required to pay Rs. 5/- at the beginning and each participant is expected to pay 10 paise per month. Special reading material is being prepared for the new learners. A newsletter *Saksharata Sundesh* is being published in the local dialects. A few books in simple Hindi have been brought out on the subject relating to nutrition and child care. A significant feature of this project is that instructors are mostly village youths and not primary school teachers.

**Farmers Functional Literacy Project:** This project of farmers training through functional literacy is Government of India scheme run through the State Governments in 100 districts of India. Seva Mandir is given the responsibility of running this project in Udaipur district. The statistics of this project are as follows—

The Project is also taking help from the Directorate of Extension, University of Udaipur and from the Farm and Home Section of All India Radio, Udaipur.

**Kherwara Experimental Literacy Project:** This Project, developed on the basis of the experience of the staff of Seva Mandir, is financed from the grants given by the Government of India. The objectives of the project are to find out the motivating factors for joining literacy classes and the most suitable methods and materials for mass literacy programmes. At present 30 literacy centres are being run under this project with 750 people.

**Rural Mobile Library:** Books are distributed under this project by two trained librarians who move on motor-cycles. While providing reading material to the literate population in the 52 villages covered by this project, one of the important objectives of this project is also to investigate the reading interests of the rural literate masses and to find the most effective and inexpensive methods of distribution of reading material.

Om Shrivastava

## bengal social service league

**B**ENGAL Social Service League was founded in 1915 by a young surgeon, Dr. D.N. Maitra, 'to help in the development of the manhood and the womanhood of the nation and in securing an all round welfare of the community life through social study and social service.' This young doctor was also a pioneer in Adult Education and realised that without a

broad-based adult and popular education programme, welfare activities would be superficial, stilted and static.

Social work in a developing country can play a tremendously significant role provided its implications are clearly brought out and it strives to reach the centre of the society, instead of thinking on the fringe. We are not suggesting that our institution is anywhere near this high ideal. We are deeply conscious of our shortcomings and limitations, but we hope to overcome them in the coming years with the active help of our friends and workers.

The adult education programmes of Bengal Social Service League (BSSL) were as follows—

**Adult Education Teachers Training:** A month-long Adult Education Teachers Training Course in Calcutta. This is a comprehensive course which includes, in addition to techniques and methods of removal of illiteracy, discussions on Urban and Rural Communities and their problems, instruction in First-Aid, lectures by specialists on Community Hygiene, Nutrition, Family Planning, etc.

**Literacy Teachers Training Camp:** These cover teaching methods for the illiterates, organisation of classes, uses of simple audio-visual aids, library etc. They are spread over 50 hours.

**Audio-Visual Training Courses:** These courses continued in 1972-73 with a view to strengthening the literacy classes where instruction should be both entertaining and attractive. These courses include projected and non-projected aids with emphasis on non-projected aids, like Flash Cards, Flannel Graphs, Posters, etc.

In 72/73, 929 trainees were given instruction in 35 Camps. Out of these 15 camps with 370 trainees were held in urban areas and 20 camps with 559 trainees were held in rural areas. The students of the Burdwan and Jadavapur Universities and some colleges of the Calcutta Univer-

sity were trained under the N.S.S. Scheme. These training courses help in making a large number of people aware of the problems of illiteracy, the need for scientifically prepared graded literature, problems relating to human approach and organisation of classes, etc.

**Workers Education:** BSSL is grateful to the Central Board of Workers Education for grants received for this purpose. 126 landless labourers were covered under this programme in rural areas and 140 workers were trained in urban areas. Altogether 8 courses—5 in urban areas and 3 in rural areas—were held during the year.

**Adult Education Centre:** There are roughly 270 Adult Literacy Centres in different parts of W. Bengal which are run by our ex-trainees with little or no assistance from us. There are many instances where villagers have donated land and built their own centres. In addition, in '72 and '73 about 50 women's Functional Literacy Centres were started with grant received from the Ministry of Education and Social Welfare. These were started in eight districts of W. Bengal and some of them are situated in remote tribal areas. These Centres aim to give a well rounded education to women including knowledge of crafts and increased food production.

**Puppetry:** Our puppet team toured extensively in six districts of W. Bengal and gave about 100 shows at the request of the Life Insurance Corporation of India. It is a well development unit now equipped to serve both in urban and rural areas. We are confident that we would be able to develop our puppet team more and this, in turn, would help us to earn revenue for the organisation and make it, to some extent, self-sustaining.

**A.N.P. Training Centre:** In consideration of our representation and on the recommendation of the UNICEF in this regard the Govt. of W. Bengal decided to take up B.S.S.L. as Training

Institution under Applied Nutrition Programme.

**Craft Class:** There is a regular sewing class for the community women where they learn sewing as a part of the Diploma Course and also to make their own garments. There are about 50 trainees in this Class.

**Publication:** We received a generous grant from the Union Ministry of Education and Social Welfare to bring out a graded series of books in urban areas from primers upwards. 1100 copies of Farmers Functional Literacy Primers were printed for use in 5 districts of W. Bengal. The district of Cachar in Assam also bought from us the Farmers Primers for the project over there. We brought out reprints of most of our books as they had been exhausted. One news fortnightly for the people of limited ability, *Chalti Jagat* entered the eighth year of its existence. We are thankful to the Ministry of Education and Social Welfare for continued assistance. It is now used widely in the Panchayats, Charcha Mandals, Rural Libraries and Adult Literacy centres. What is very gratifying is that there is an increasing demand for this paper among the limited literates in rural areas.

**Nehru Literacy Award:** Bengal Social Service League was honoured by the Indian Adult Education Association when Sri Satyen Maitra, then Secretary, was nominated for the Nehru Literacy Award for 1972.

Satyen Maitra

## gujarat state social education committee

THIS Committee was appointed by the Government of the Bombay State in 1947 when Gujarat was included in that State. After the establishment of the separate State of

Gujarat, now the Committee is the chief agency for social education programmes in the entire State.

The Gujarat State Social Education Committee (GSSEC) aims at organising programmes of social education and literacy to increase application of scientific knowledge in various fields of life, to use the different media of communication for spread of knowledge and to help people in proper use of leisure. The primary objective, of course, continues to be to improve the standards of living of the people and to enrich their quality of life.

The central office of the Committee, located in Surat, has 12 staff members, 7 full-time and 5 part-time.

By March 1973 GSSEC had made about 1,20,000 persons literate in 5 mass literacy drives and had organised 10 workshops for creation of literature for neo-literates in which about 150 writers participated. Two periodicals, a monthly *Jeevan Deep* and a fortnightly *Ghar Deewadi* are being published and 170 books have been published so far. GSSEC also provides library and reading room facilities at different centres and has distributed in villages over 12000 sets of 75 books each.

Since the emphasis has so far been on organisation of mass literacy programmes and its follow-up, it must be described in greater detail—

Before launching the literacy drive effort is made to secure the cooperation and commitment of ministers, senior Government officials and panchayats. Local Committees are formed at district, taluka and village levels to help awakening the spirit in the local masses.

The adults are motivated by press, radio and effort made by senior political leaders who contact the local committees. The duration of the drive (first test *pravesh*) is three months and the minimum attendance required of each learner is 60 days. Apart

from reading, writing and arithmetic, general knowledge is included in the syllabus.

After conclusion of the 60 days of learning the adult is tested by local officials of Education Department, who are also responsible for day-to-day supervision. These officials are especially trained for this purpose. The Supervisors' training programme involves 20 point syllabus and is quite elaborate.

A sound follow-up programme is essential for retention of literacy. The first step of the follow-up programme is to place 11 sentences covering all the letters of Gujarati alphabet and put up at the village meeting place. Simultaneously 10 cards printed in the form of two booklets are given to all adults who successfully pass the first test. The next step is to give to the adults a copy of the fortnightly magazine *Ghar Deewadi* and 10 graded books are sent to each centre for use of the neo-literates. Adults who achieve higher competence can take second test, *parichaya*.

The Committee had prepared and submitted a programme for eradication of illiteracy in the State of Gujarat by the end of the Fifth Plan. The scheme envisages a total expenditure of about Rs. 650.00 lakhs for making 75 lakhs of persons literate upto the first stage (*pravesh*) standard and 35 lakhs for achieving the higher level of *parichaya*. The scheme envisages per capita expenditure of Rs. 4.45 per adult for the first stage (*pravesh*) and Rs. 8.90 for the second stage (*parichaya*).

C.R. Bhatt

## literacy house

LITERACY House was established in 1953 in Allahabad by Dr. (Mrs) W.H. Fisher. It subsequently acquired its

present campus in Lucknow in 1956. The programmes and activities of Literacy House are carried out in the following sections: Functional Literacy Education/Training, Young Farmers Institute, Family Life Centre, Publication, and Material Production, Central and District Library, Research and Evaluation and General Administration. Every Section has three types of activities, viz. Training, Material Development, and Resource Facilities and Services.

*Functional Literacy Education/Training.* The pivotal programme at Literacy House is the training of literacy and adult education workers. The training programmes also cover literacy teaching carried out through experiments with new patterns of literacy techniques and adult education projects, development and testing of syllabii, instructional materials for adults and workers, and follow-up services, etc. The training courses conducted on and off campus are for literacy teachers, supervisors, administrators, planners and trainees of literacy personnel. We are working with the Department of Education, U.P. for training personnel of Farmer's Functional Literacy Project in 21 districts and Trainer's training for literacy workers for State Panchayat Raj Department. We collaborate with Directorate of Adult Education of the Central Ministry of Education and Social Welfare in organising Seminars at Literacy House for Farmer's Functional Literacy Project. The Section conducted trainer's trainings for literacy workers for Madhya Pradesh Government Officers. The Training Officers have been deputed for conducting courses in literacy and adult education for University staff and students under National Service Scheme throughout India.

The workers of allied activities such as rural library management, audio-visual techniques, Silk Screen Printing Process and

Puppetry are also trained in theory and practice. The section organises seminars, workshops on the subjects and problems of literacy and adult education to bring them to fore and find solutions.

The training period varies from a week to a month's duration. The content takes shape on the basis of the need and capabilities of the trainees.

*Young Farmers Institute.* Young Farmers Institute, a rolling campus with farm, agricultural workshop, cattle breeding centre and extension activities, was considered necessary as a result of our experiences in the field of functional literacy. Mrs. Fisher, the founder donated the entire Ramon Magsaysay Award (1964) for its establishment in 1966. It correlates literacy with agriculture. National Dairy Development Board has helped to establish a Cattle Breeding Centre. It organises short term courses in subjects such as agricultural innovations, High Yielding Varieties, cultivation, pumping set and tractor maintenance and operation, etc. Besides training young farmers, it carries out agricultural extension work in farmer's fields and follow-up services. Through its Custom Service the Institute has helped and educated farmers of small holdings, in the service area/villages, who cannot afford to have their own improved implements.

*Family Life Centre.* Established in 1969, it helps to educate rural population in understanding the concept and importance of smaller, healthier and better educated families through its various activities. It organises workshops on preparation of integrated material, on family life and population education, composite courses in Family Life Education and village women leadership trainings.

*Publications and Material production.* The section coordinates the publication of tested teaching material develop-

ed by all sections for the new readers as well as for the people of limited reading ability and publishes for sales. A monthly magazine 'Ujala' (Hindi) for the family of new literate farmers and workers and a quarterly periodical 'Lekhak' (English) for new writers are also published as follow-up services. It has also produced a family Life Education Kit, which is widely used by governmental departments and private agencies.

The school of writing, conceived by the late Dr. Radhakamal Mukerjee, trains the potential writers. It also organises workshops for professional writers, illustrators and specialists to think in terms of simple writing for the people with limited reading abilities.

The section has helped other agencies such as UNICEF, the Family Welfare Department, in the preparation and the production of posters and other teaching materials. It is conducting an All India Survey of Teaching Aids available at Nurses and Para Medical Training Institutions.

*Central and District Library:* The Central Library serves the needs of the academic members of the staff and research workers. The District Library achieves its objectives to bring books to the readers' door-step and organising follow-up services through Bell Bicycle Libraries, Circulating Tin Trunk Libraries, Market Mobile Libraries, Halting Libraries, Inter-Library Loan Scheme. The Section cooperated with local bodies, such as High Schools and private organisations, in building up the libraries and distributing books. It organises Book-fairs in rural areas for creating reading interest and introducing new titles.

The Library has a Documentation Centre which collects material on all phases and facets of functional literacy and related fields particularly in Asia and publishes a monthly *Literacy Today*.

*Research and Evaluation.* The cell collects data, investigates, analyzes, evaluates, and reports on functional literacy education project undertaken by Literacy House. It helps develop built-in evaluation techniques for different programmes and activities undertaken by the various sections and produces evaluation and research studies on functional literacy.

Different sections develop material for the adult new-literates, the workers and their own staff. These are tested and passed on for publication. In the field of audio-visual aids the sections concentrate on non-projected aids such as flash-cards, khaddar-graphs, charts, posters, flip books, disc quiz and particularly puppets. We have introduced puppets not only for functional literacy education but for Life Insurance Scheme, Family Planning and other fields. Film Strips on Functional subjects have been developed.

The Resource Facilities and Services are provided for functional literacy in the form of technical guidance in preparation of projects, counselling for solution of problems, etc. to individuals, agencies and State and National Government Departments. Literacy House works with different agencies throughout country to extend and share its accumulated knowledge and findings. Some of the areas in which it has helped other agencies are adult literacy classes for men and women, preparation of literacy and follow-up literature for literacy classes, writers workshops, books translation in regional languages, mobile library, development of puppetry for adult education, teacher's training.

Recently Literacy House helped establish Eastern U.P. Adult Education Centre, Deoria which develops local leadership in rural areas for literacy and adult education through strategically selected educational institutions.

P.N. Shivpuri

*Material Development and Production:* IAEA will provide resource services for development of learning material for different types and phases of literacy and non-formal continuing education programmes. It will assist in organisation of writers' workshops and production of material on contractual basis, including primers, kits, visual teaching aids, etc.

*Library and Documentation Services*—The Jha Library located at the Association's headquarters will supply off-prints of articles published in Indian and foreign journals and information about new publications. The Clearing House of Social Education will be strengthened and diversified to cover problems of non-formal continuing education, etc.

*Research*—IAEA will assist in evaluation of on-going programmes, in identifying areas of research, in preparation of basic and operational research designs and in developing of tools and techniques for conducting research programmes.

The members of the Association and other organisations interested in availing of these facilities may write to the Association's headquarters giving details of the area and nature of assistance required. The services will be provided free if the Association would be willing to depute its resource persons for on-the-spot guidance provided the beneficiary bears the travel and other expenses of the resource person concerned. Special agreement will have to be entered into for material development work, evaluation and research projects.

### writers workshop

A workshop of 20 renowned Hindi Writers on development of continuing education material was organised by the Association and was held at the headquarters of the Association in New Delhi on November 24, 1973. Shri

Prabhakar Machwe, Secretary Sahitya Academy, presided and Dr. Lakshmi Narain Lal was the Director of the Workshop.

Dr. Lal apprised the writers about the need, scope and importance of need-oriented literature for socio-economic development of the country in simple language for the general reading public. The theme of the workshop was population explosion and its related concepts, which included (i) over-crowding, (ii) food-crisis, (iii) pollution, (iv) unemployment, (v) health and sanitation and malnutrition, and (vi) social unrest and broken homes.

The workshop was the first attempt of its kind in the country to persuade and involve the renowned writers for developing continuing education material for the masses without losing the literary elements of their writings.

The writers will write their material in about two months and will be called for another meeting in early February, 1974, to discuss their writings among themselves. The material will also be pre-tested in the field before being finally printed.

Among others who attended the workshop were Shri Rajinder Awasthi of Hindustan Times, Smt. Rajni Panikkar of AIR, Shri P.N. Tripathi of Publication Division, Dr. Maheep Singh and Dr. Gopal Sharma of the Central Hindi Directorate.

### new publications

The Association has recently brought out a book entitled "Adult and Community Education: An Indian Experiment" by S.R. Mohisni. It is a case study of Jamia Millia Islamia's Idara Talim-O-Taraqqi (Institute of Adult and Social Education).

Another publication of the Association, "On to Eternity", Vol. III is in the Press. It is a record of the presidential addresses, and resolutions of the All India Conferences of the Association since 1966.

### assistance to institutional members

**I**N the context of the Fifth Plan as approved by the National Development Council the Indian Adult Education Association has decided to extend the following services to the institutional members—

*Programming*—Services to be provided will include development of model projects, preparation of project proposals and setting up of evaluation tools.

*Training*—Assistance will be provided in construction of syllabi for different kinds of training programmes and assistance in training of trainers as well as follow-up of training courses.

# from our correspondents

## delhi

### creative drama for young adults

Mobile Creche Programme is running literacy classes for youth and adults working on construction works which employ a large number of persons for a fairly long period. These Centres are being conducted by Smt. Mina Swaminathan.

This year a programme of drama as a recreational activity and educational media has been taken up for the young adults in the literacy classes.

The programme was started in July, 1973 with a short orientation course for the staff. The pupils engage themselves in recreational activity twice a week. The programme culminates in an entertainment programme at which short plays, songs, kawwalies and other creative recreational forms are presented. Two such performances have been held, one at the Czech Embassy centre and the other at the proposed High Court building centre.

So far this programme is confined to boys and young men because trained workers who can work with girls and women are

not available. The organisation proposes soon to have a girls section also. Gradually the programme will be extended to all literacy centres and will continue throughout the year.

Performances may be held once or twice a year, but the organisers feel, it is more important to engage the workers through creative drama for their own enjoyment, education and development. Folk music and folk tales belonging to the community will be used and it is hoped that this will not only create interest in and respect for our cultural forms but will also be a further motivation for literacy.

### training course for literacy teachers deputed by voluntary organizations

Ministry of Education's Directorate of Adult Education organised from Nov. 5 to 16, 1973 a training course for 24 adult literacy teachers deputed by voluntary organisations. Taking into account the convenience of the participants training sessions were held from 2-30 p.m. to 5 p.m. at M.P.'s Club, South Avenue, New Delhi. The total instructional hours in the course were 30.

The course was inaugurated by Prof. D.P. Yadav, Union Deputy Minister for Education. He stressed the need to make literacy programmes functionally useful for adults.

The topics of the training programme included adult psychology and problems of motivation, organisational aspects, content of literacy syllabus, methods of instruction, evaluation and follow-up.

The stress during the training programme was on practical side. In addition to lecture and discussion there were several sessions of practical demonstration of methods and materials.

The closing session was addressed by Smt. Aruna Asaf Ali who stressed the essential need to arouse the spirit of the masses

for eradication of illiteracy in the same manner as was done for freedom struggle.

### daea opens functional literacy centre for women

The Delhi Adult Education Association has started a functional literacy and family life welfare education Centre for adult women. The Centre was inaugurated on December 4, 1973 by Shri Radha Raman, Chief Executive Councillor of Delhi. Shri Raman stressed the need for achieving cent percent literacy in Delhi in the next decade.

The Centre will provide education and training to women in household crafts, population education, civic education, food and nutrition.

## tirupati

### nutrition education

A short course on Nutrition Education for children and adults was organised under the auspices of the Department of Adult Education, Sri Venkateswara University, Tirupati from 13.11.1973 to 19.11.1973 for the benefit of forty five Primary school women teachers of Tirupati Municipality.

The aspects covered in the course included—

—Scope and importance of nutrition education.

—Nutrition for children and adults.

—Methods of nutrition education.

—Food adulteration and food preservation.

—Applied Nutrition programmes.

—Impact of population growth on nutrition.

The course was organised by the faculty staff with the assistance of experts. Lectures were followed by group discussions, film shows and demonstrations.

(ii) Formal education and (iii) Non-formal education.

Through *informal education*, for example, a child acquires a substantial vocabulary at home before going to school, a daughter learns child-care and cooking from helping and observing her mother or elder sister, a son picks up occupational skills from his father, adolescents learn from their peers and others learn through listening to radio, watching T.V. and through a variety of other communication media. For the most part this process is relatively unorganised and unsystematic although it is truly a life-long process.

*Formal education*, apparently, refers to the educational system running from elementary school through college and university—a system which is traditional, hierarchically structured and chronologically graded.

*Non-formal education* may include any organised educational activity outside the established formal system intended to serve specifically identified clientele with learning objectives—defined for their purpose. It may simply indicate that a given educational programme, though organised and pursued systematically, is outside the main domain of formal system.

Informal education, formal education and non-formal education will have some degree of over-lap and a high degree of interaction will be found in all the three “modalities”.

There is evidently a need for a new vocabulary appropriate to this field. Much more crucial, however, is the task of persuading people that they must keep on learning. Of course, achieving this end will require much more sustained efforts than merely adopting the new terminology.

Directorate of **B.C. Rokadiya**  
Adult Education,  
New Delhi

## informal, formal and non-formal education

IT was interesting to read the paper on Informal Education by Mr. Asher Deleon and so also the views expressed on the subject by Prof. M.V. Mathur.

In contrast to the traditional view that equates education with schooling and measures it by years of exposure, Mr. Deleon has proposed a concept of education that equates it broadly with learning regardless of where, when or how that learning occurs. This ‘learning centre’ view of education holds clients and their needs, interests and inclinations in sharp focus, and takes into account the alternative means for meeting those

needs and interests. It assumes that education by its very nature is a continuous process starting from earliest infancy through adulthood and that entails a variety of modalities and sources of learning.

Informal or non-formal it may be recognised are imperfect labels. Unfortunately there is not yet a clear and commonly accepted terminology for discussing some of these unconventional modes of education. For operational understanding of the master concept of life-long learning which seems to vibrate the thought and action in the field of education the world over, it may be helpful to group the learning methods into three categories: (i) Informal education,

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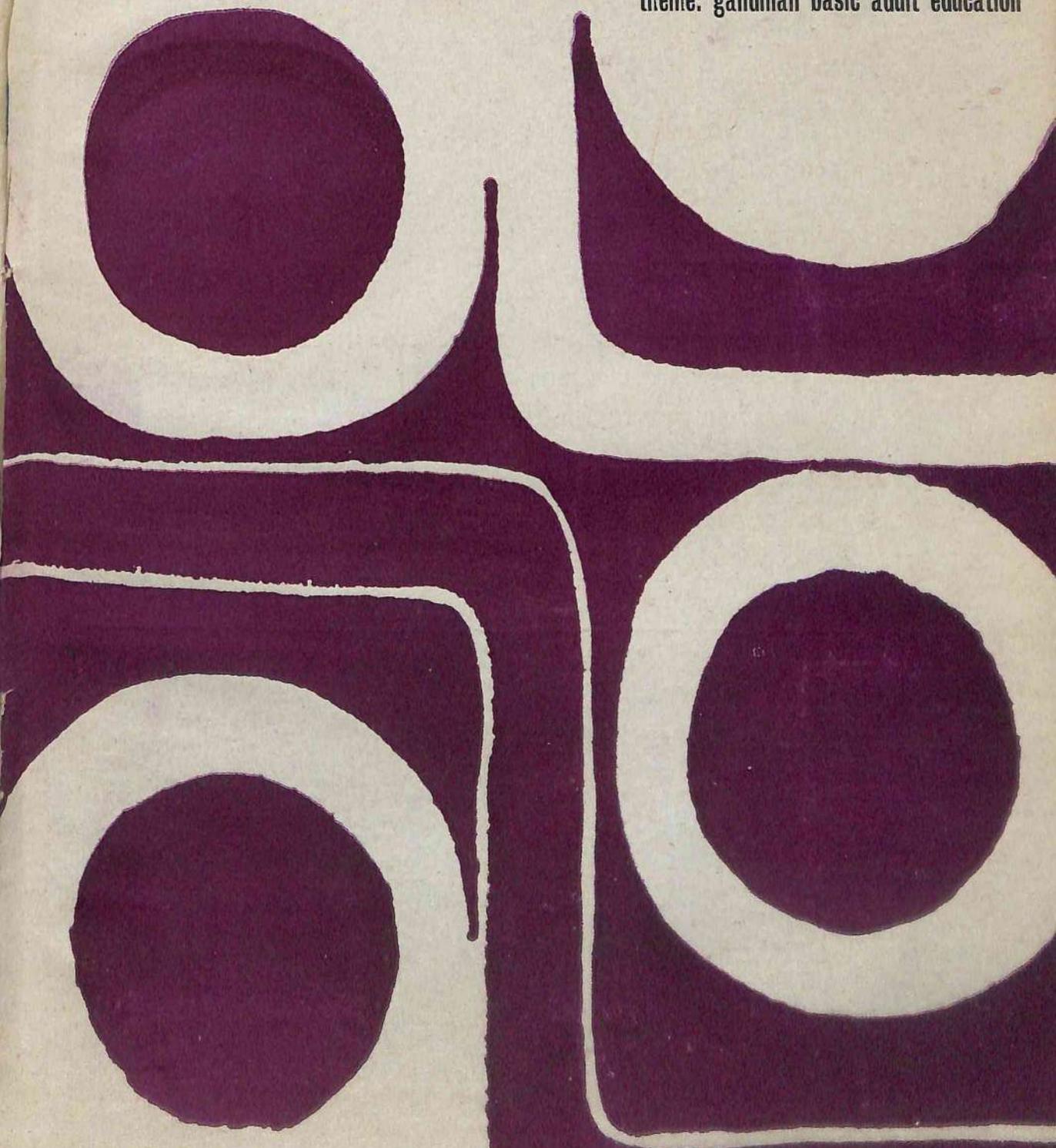
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# indian journal of adult education

theme: gandhian basic adult education



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# work centred adult education

THE country has perhaps never been faced with a crisis of the magnitude of the current crisis. It has again become necessary to redefine the role and concepts of adult education, particularly literacy.

In the flush of enthusiasm generated by the National Movement the popular Governments set up on the 1935 Constitution emphasised simple familiarity with three Rs. Each one was asked to teach one. Even the capability to learn to sign was considered an achievement. It was claimed that this capability imparted to the individual a personality.

The Gram Shikshan Mohim of Maharashtra was the finale of the mass programmes started in the late thirties and early forties. The percentage of persons who relapsed to illiteracy was staggering even immediately after the Mohim programme had concluded. An evaluation today might show a much larger percentage of relapse.

Then came the phase of functional literacy and selective approach. The concept of functional literacy was given shape and meaning by persons like J.C. Mathur in the form of farmers' literacy and training programme. A quantitative evaluation of that programme has, however, revealed that something has gone away. Against a target of about one million farmers to be made functionally literate in the Fourth Plan, the achievement is likely to be about 20 per cent. If one were to discount the inaccuracies which may have been overlooked by over-enthusiastic field workers and supervisors the actual achievement may not exceed 10 per cent.

Hardly anybody exactly knows how many persons made literate in the Mohim-type mass literacy programmes or farmers'

functional literacy type of selective programmes actually use their literacy skills. Nor, for that matter, have there been empirical studies to show what a person does with his literacy acquired as a result of his completing five years in a primary school. A guess can be hazarded. Whether these young people or adults who become literate relapse into illiteracy or not is a theoretical issue. It can be safely asserted that, with a small exception, they do not use their literacy skills either for their livelihood or for exercise of their social and political role.

All adult education programmes, particularly literacy, are almost completely isolated from individuals' and nation's strivings and needs. What is worse, they are isolated from the educational system itself. They exist as a justification of Government departments, voluntary organisations or ambitious individuals. Referring to the mass literacy programmes launched in late thirties, particularly in States like Bihar, Gandhiji said in the Harijan of June 1940:

The relapse is bound to occur after the short courses that are given. The relapse can only be prevented by correlating the teaching to the villagers' daily wants. The dry knowledge of the three Rs is not even new; it can never become a permanent part of the villagers' life. They must have knowledge given to them which they must see daily. It must not be thrust upon them. They should have the appetite for it. What they have today is something they neither want nor appreciate.

There is little doubt that had Gandhiji been living he would have had similar things to say about the other adult education programmes.

If we want to change this

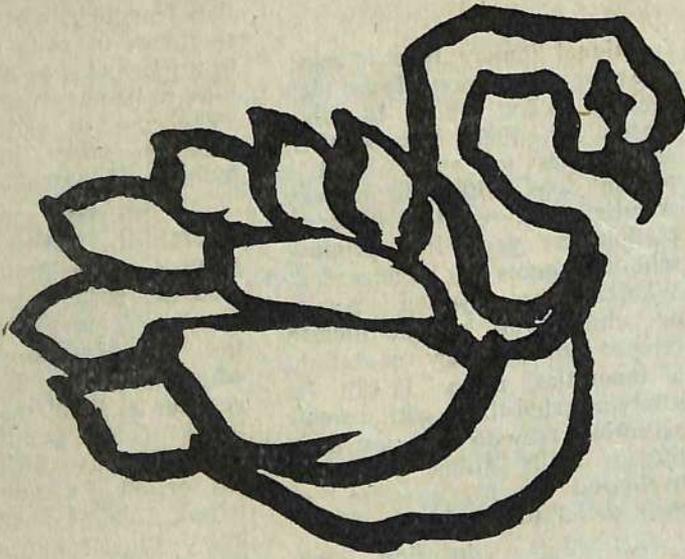
set up of adult education we have no alternative to adopting the Gandhian way. Emphasis shall have to shift from literacy to work and the objective will have to be improvement of Man. "The aim of our knowledge," Gandhiji said, "must be the building of character."

It has been observed by several field workers that a programme which promises to provide an economic supplement to an adult is the best motivation for him to come to the education centre. New skills for earning a supplementary livelihood for the families in urban and rural areas will be the logical version of Gandhian spinning wheel. Unless we can train every villager and every urban householder, particularly the women, to engage themselves in some cottage or household industry, we may not be able to provide the needed economic support. And the literacy programme shall have to centre around these work projects.

Education for character building may seem, to a modern mind, an antiquated and irrelevant slogan. Yet, in India the oral tradition of culture and learning has always been value-oriented. If an Indian, even in our isolated village, is steeped in a cultural tradition which makes him discriminating it is because of this oral tradition.

A proper understanding of work centred education and its correlation with life is the meaning of life-long integrated education in Indian context. Education must be integrated with work and different levels and stages of education must be integrated. Education must be integrated with the national values and must become life-long.

This number of the Journal, drawing on the authority of Vinoba, Ananda Coomaraswamy and Dayal Chandra Soni, focuses on questionable relevance of literacy *per se* and presents an alternative in the form of work centred adult education.



कोरा कागज काली स्याही । लिखत पढ़त वाको पढ़वा दे  
तू तो राम सुमर जग लड़वा दे ।

Kabir

Let those who want to read and write be.

What afterall is it? Some black ink on blank paper. Better devote time to prayer and let the world fight over reading and writing.

I concentrated all effort on *Gramdan*, and was able to get one lakh or one and a quarter lakhs villages in *Gramdan*: but it is all on paper. Everything these days is on paper. The votes are given on paper. The notes are printed on paper. Work has become synonymous with paper-work.

Kabir was an enemy of paper. There have been two great representatives of the illiterate. One was Mohammed, *Nabeeyun Ummeeyun*, the Unlettered Prophet.

When he was praying the God came and threw a piece of paper before him and said loudly: "Iqra", that is, read. Quran is based on word Iqra, something to read. When the piece of paper was seen by Prophet Mohammed he saluted the God and said,

"Allah I do not know to read and write."

What was the result? God himself had to appear before him and conversed with him. Mohammed always used to say that had he been literate he would not have been able to see God; he would have had to be content with a slip of paper. So one enemy of the written word was Mohammed.

The other was Kabir. Many persons having faith in *Sarvodaya* put forward demands, including a demand for more education. I tell them: You should ask for one more right. The right to remain illiterate. That is the right to be in company of Mohammed and Kabir. Nobody should be allowed to force us to read. Why should paper come in between the Creation and us.

Vinoba

Maitri, Oct. 1973

# **gandhian basic education as applied to adult literacy**

Dayal Chandra Soni

there used to be a lot of zeal for this scheme all over the country.

But the trouble about this scheme was that its basic ideas had not been imported from a foreign country, it did not allow the English language in the curriculum for the first seven years of schooling and it aimed at producing good persons instead of good clerks. And that was a big offence, for the manufacture of clerks was more important than production of good persons. The scheme emphasized the use of handicrafts as source of education, the mother tongue as the medium of instruction and education had to be productive in the educative as well as the economic sense. As soon as freedom was attained this Basic Education was wiped off successfully by our bureaucracy and our political leaders.

And thus the battle of educational revolution was lost by the nation at the very birth of Independence and our future generation is doomed to that very education which was designed by Macaulay for imperialistic aims. And the battle lost on the school front seems to be a tragic finality unless miracle may happen. We do remember the principles of Basic Education and feel guilty too. But lack the boldness to accept our blunder and effect a revolutionary change. We lack the spirit of adventure and self-confidence and the vested interests are too strong to allow a change. We feel shy of the Indian genius. Basic Education ought to have come from U.S.S.R. or from America to become respectable and acceptable to the Indian educationists.

## **EDUCATION AS INTERACTION BETWEEN LIFE AND ENVIRONMENT**

**the battle of basic education lost on the school front**

**I**NDIAN history will tell us that there used to be a system of school education in India which was called Basic Education. The scheme of this system of school education was propounded by Mahatma Gandhi in 1937 and for some time

**how the illiterate adults have more common sense about education**

Why have we lost the battle on the school front? It is because children are mere children.

They are helpless, they are dependant on adults. They cannot judge for themselves as to what sort of education would be right for them. They have no choice but to undergo what is provided for them in the name of education. But, as soon as they begin to understand matters, they show their dissatisfaction and they revolt against what we have been doing with them.

But, it is quite different with our adults. When they are called to our educational feast they decline the good offer. They do not cooperate to our satisfaction. Our adult illiterates are neither as eager nor as enthusiastic about adult education as we are. Let us think why it is so. Is it because the illiterate adults are not as wise as we are in seeing the value and the benefit of adult education? Is it because they are stupid that they do not show the same concern for literacy as we do?

I once thought the illiterate adults were obstinately stupid in not participating very actively in the adult literacy programmes. But I do not think so any longer. Now, I really admire them for their tenacity and toughness against the so-called adult education programme we are trying to impose on them. The illiterate villager knows better than we do the merits and demerits of our educational programmes.

Education has been and still is only one of the many professions for earning a livelihood. As we have the barber or the blacksmith in our society so we have the educated person, too, dealing in the profession of reading and writing. If it is not necessary for every man to become a barber or blacksmith, why should it be necessary for every man to become proficient in reading and writing? Even if the adult agrees that literacy as a profession is a better means of earning a livelihood than most of the occupations practised in the village, the question remains as to how an adult, who is already settled in a profession is to

gain by literacy since it is so late for him to change his profession? The illiterate man knows, too, that literacy is the passport by which he could get rid of the hard jobs involving physical exertion and get into the comfortable offices of the city with electric fans. But he knows that it is too late for him and so he offers his child to literacy instead of himself. But his child, who has become not only literate but in possession of good degrees, he finds, to his utter dismay, that there is no room in the city offices. There is the urban elite class already in the lobby to push the new-comers off the queue and get into the vacant positions.

The old Brahmins and Kshatriyas were at least honest enough to declare that there was not enough in the offices to employ all and so education must be restricted. But here, in democracy, we are inviting everybody to the feast but we are feeding only the elite. And the illiterate people know this all very well. Why should we be surprised at their refusal to respond to our invitation to become literate or even to send their children to schools?

### **education as a biological distinction of the human species**

Thus, our dilemma in the field of adult education is very clear! It should not take us long to understand that education or literacy in its traditional form and meaning is not going to be accepted by the wise illiterates of our old and experienced nation and education or literacy must undergo a fundamental transformation if it is to be acceptable to the people of our country. So, the question which is crucial, is, what sort of fundamental transformation is required by our educational or literacy programme to be useful and acceptable to the people of our nation,

The principles of Basic Education enunciated by Gandhiji are the only true answer to this crucial question. The reason is that Basic Education transforms itself to all human beings. The fundamental postulate of Basic Education, as propounded by Gandhiji, is that education is not a human necessity just because democracy or the Five Year Plans, or the scientific and technical revolution, or the green revolution, or the family planning programme is failing without an educated or literate public, but that literacy and education are a human necessity because human being are human beings and not animals. Basic Education considers an education as a biological distinction among the human beings themselves. Basic education fundamentally alters that concept of education and transforms itself to become a basic feature of human life as distinct from the life of other species on the earth.

### **basic education, an integrated view of the total life**

Basic education views human life as a total educative process. Education according to the Gandhian view is neither an isolated nor a fragmentary factor of human life as we have been used to taking it. Our education or our literacy programmes have been isolatory in the sense that they have tried to bring about either academic or manual development in isolation to each other. And our programmes have been fragmentary in the sense that we have tried—in times of sober moods—to correlate education with this or that aspect of the total human life. Waves after waves of fresh ideas reach our shore to emphasize this fragment or that fragment of life in the educative process. We are told, we should have functional literacy. Next, we are told, there should be the farmer's functional literacy. Further, we are told

there should be the family life planning functional literacy. I expect the next waves to be the nutrition functional literacy, the cooperatives functional literacy, the first aid functional literacy, the soldiers functional literacy, the barbers functional literacy and so on. I call this the piecemeal or the fragmentary approach. I wonder why should we not adopt the total life functional literacy approach once for all? And this is what the Basic Education actually offer!

### life as a tree bears education as fruit

Basic Education is thus a transformed education to serve man in his capacity as man, beyond any other capacity, and thus it transforms human life into an adventure in education rather than a struggle for wealth and power, which it has so tragically become for us all. Basic Education is, thus, a way of living which does not receive a ready-made or imported load of instruction but which generates and regenerates education as an outcome of the living process.

As a tree bearing fruit, life begins to bear education when Basic Education is applied to human life. Education is not a commodity to be hoarded, it is a fruit to bear in which the process of bearing the fruit is as important as the fruit itself. The fertility for other animals is restricted to the reproduction of their off-springs. But it is not so with the homo sapiens. Apart from the fertility for reproducing an off-spring the human being is endowed, by nature, to produce and to reproduce education and human life cannot have fulfillment without the germination and flowering of this special fertility. The real function of education is not to supply ready-made knowledge but to activate and to vitalize this extra fertility of the human being which distinguishes him from other animals

and which generates and regenerates education as the real fulfilment of life.

### education as cyclic interaction between man and his environment

Basic Education reveals the real process of education which enables human life to become a dynamo of educational growth. The secret of this process is that education is not a one way traffic. Education is growth through interaction between man and his environment which is realized through purposeful, creative, intelligent, co-operative activity. In life, we take something in by giving something out and we give something out by taking something in. And this reciprocal process of give and-take is the essential condition of educational growth also. We must give in order to get and we must get in order to give. This is the inner, hidden, core of Basic Education.

Education of man is impossible if he is isolated from his social, physical, linguistic and cultural environment. An improved environment improves the man and the improved man improves the environment. It is a gracious circle. Education is not possible without this cyclic interaction which is carried on through the phenomenon, called "WORK". And, this is why work becomes the backbone of Basic Education. In such an educational perspective, work is not merely a drudgery or simply a means to physical survival, but it gets a new dimension, a new significance, a new propensity, a new fertility, a new spirit and a new out-come. It does not remain a mere 'work' (Karma), but, it becomes a 'path of harmony' (*Yoga*), a 'social service' (*Lokasamgraha*), a 'sacrifice' (*Yajna*) and a 'worship' (*Archana*) about which the Gita says: "You will attain the highest good by reciprocal service" (*Parasparambhavayantah*

*shreyah param avapsyatha*-III-11) This reciprocal service relationship between the forces of nature (environment) and man through activity or work is the natural and eternal law of human life which, in its essence, is an educational adventure.

## II

### THE EDUCATIONAL NATURE AND NEED OF WORK AND THE CONDITIONS OF THEIR FULFILMENT

#### work as the double-fruited tree and work as educator

Work was assigned to man, primarily, because, work was educative, but man made the mistake of using work for meeting his physical needs only. The true reward of work is education, material gain being only its by-product of secondary importance. By nature, work, in its human sense, is not a biological necessity for existence or survival. All, living beings, except only the homo sapiens exist without 'working'. Hence work identifies a special or a peculiar need of the human race which is absent in the lower animals. We, as men, do not simply require work for bread, but we as well require bread for work. The real nature of work is educational and we require it primarily to meet our educational needs.

All social evils of our society can be traced back to the origin of the great sin of forgetting the real (the educational) nature and need of work and using it just for material ambitions. It can be compared to using the cow for its dung alone, throwing away its milk. The wages are the dung of the work and the education we get out of it is its real milk. But the traditional education has never allowed us

to know that reality. Hence, the cut-throat competition and the struggle for money making through work. Hence, the corruption and the black money and all the problems.

Basic education corrects this wrong situation in a fundamental manner. The main job of a teacher in Basic Education is to train his pupil in the art of deriving educational benefit and creative satisfaction from the work he does and then to step aside so that he may become a self-educator with the help of work, which is to be his companion for life. Education is a first hand experience of inner growth and not the carrying of the load of some borrowed information. This firsthand experience of inner growth is made possible by work done in the spirit possible of *Yoga, Yajna* and *Archana*, as described above.

The blunders we are committing in our efforts for adult literacy are too many and too serious. We must correct these blunders before we impose ourselves on the people. If this advice is not heeded to, we shall be doing greater disservice than service.

### **the superior fruit ignored and the inferior fruit emphasized**

On such blunder we are committing lies in our stressing the material benefit of work while introducing work-oriented literacy. We repeatedly tell the people that they are poor and exploited and their first duty is to overcome their poverty and the literacy we are imparting is to be a cure for poverty. But, poverty can never be removed by stressing poverty or the material benefits of work. We should correct this blunder. We should tell the people that they are rich, because they are really rich. We should tell the people that their attitude towards work should change.

Work should not be taken merely as means of material benefits but it should be taken primarily as a medium and a vehicle of educational growth whereby we become human beings instead of animals.

Education is a human privilege, it is the essence of life, it is the fulfilment of human aspiration. So let us work for education first and material gains afterwards. This is true way of introducing work oriented literacy. By adopting this healthy approach, work is going to lose its material output in any way but will effect the extra gain of education. Let us remember that education aiming at removal of poverty can be popular only with the money-minded rich people; the people who are really poor are too poor to be money-minded and they do not have the same appeal for removal of poverty.

Education, according to Gandhiji, consists in revealing the fact that work has an educational fruit which is superior to the material fruits it bears. We have been disallowed to apply this principle at the school level because the school going children are too powerless to have their way and the vested interests of our elite are too powerful to allow that sort of revolutionary education. But, at the adult level the situation is quite favourable because the adult is a wise student, is a free and powerful pupil. He has inherited the common sense of our ancient culture in spite of his illiteracy.

### **the educational justification of decentralized industries**

As a country should have high mountains and dense forests for good rains, so a society should keep its cottage industries preserved for good education. When work is deprived of its educational dimensions and subordinated only to material production, it is snatched away

from the hands of human beings and handed over to the giant machines turning human society into a barren desert. Not only that. It, moreover, defeats its very purpose of material prosperity because having snatched away the decentralized means of manual production, the giant machines neither care nor have the means to distribute the production equally to all hands from which the work had been snatched away. And the empty hands deprived of work do not have the coin to purchase the machine's produce. No privation for a human being is greater than deprivation of work. Work should, therefore, be laid down as fundamental human right in the constitution of a civilized society which cares for the education of its citizens.

### **relationship between work activity and the immediate environment**

Now, if we accept that education is cooperative, creative and intelligent interaction of man and his environment through the medium of work-activity, we shall immediately agree that this interaction is possible only on the local, the particular and the immediate plane of a situation.

Thus, Basic Education, while applying the eternal and the universal principle of education (i.e. interaction) becomes a most specific, decentralized and practical endeavour. The curriculum, the syllabus and the textbooks may be there for formal reasons, but the real curriculum, the real syllabus and the real text-books are already there in the life and the environment of the educant. Let us remember that education used to exist without the printing press and education is not identical to the reading of prescribed text-books which mostly try to introduce uniformity and regimentation in education and deprive it of its vitality.

If literacy is to be functional, it has to be creative and active and so it cannot be bookish. Printed material is, of course, not to be excluded, but literacy has to be based on written work more than on printed material for the simple reason that writing is more active, creative, local, immediate and particular work than the printed book can ever be for the educant. Only writing can be decentralized and properly related to the problems, needs and environment of the learner. So, let literacy be based on the writing exercise more than on printed books. Only then will literacy endure and lapses will be fewer.

### **mother-tongue the most vital component of work-oriented human life and educational environment**

Language is the first condition of life on the human level. Without the linguistic medium we cannot think, we cannot communicate and we cannot work. So, the educative process is impossible without the language medium. But, the most important thing to understand in respect of the educative process is that language must be a weightless spontaneity if the educational activity of thinking, of communicating and of working is to become effective. The only language which is weightless and spontaneous and which can be used without strain and inhibition is the mother tongue of the person concerned. It is only the mother-tongue in which we spontaneously think, express, assimilate, love, hate and act. Hence, Gandhiji laid it down that education from the bottom to the top must use the mother tongue as its medium. This does not mean that other languages are not to be learnt as other subjects, like geography and history are learnt. It only means that if education is to be

education, mother-tongue must be its medium.

Moreover, the fundamental postulate of the literacy programme is that the illiterate man has already got the oral medium of thinking, feeling and working as what he lacks is the skill of symbolizing the sounds involved in his speaking and thinking. His lack of this skill is a great hindrance in his process of life and education and so his speech and thought should be fitted with the alphabet in the same way as the toothless mouth of an old man is fitted with artificial teeth without changing the mouth of the man. Literacy was never meant to replace the mother-tongue of the illiterate by any other mode of speech which in "our" opinion is more standardized as a lingua-franca or the national language. The man and his mother-tongue are one. To declare that the mother-tongue of the pupil is unfit for educational purpose is to declare, virtually, that the pupil himself is unfit for education.

What travesty of pedagogical wisdom is this? It only betrays our over simplified and lethargic attitude towards the difficulties and problems implied in the spread of literacy.

### **we counteract the means and the end of literacy**

India was not as illiterate in the past as it is today. The present staggering magnitude of illiteracy in India is the result of a long long period of foreign rule in which the mother-tongues of the people were denied the script, since, education was imported either in the Urdu or the English languages. Even today, literacy can spread in India in no time, like a forest fire, if literacy could ride the vehicle of the mother-tongues of the people. If the local mother tongues are used for literacy purposes, literacy will spread from man to

man and from family to family and from village to village. But when literacy is sought to be imparted in a different tongue, the wheels gets no momentum, they get jammed. It is like applying strength on the pedal and the breaks of a bicycle at the same time. So we ourselves counteract the means or the process of literacy by using a tongue other than the mother-tongue as the medium.

The end of literacy is to make people active thinkers, active workers and active decision-makers, active tellers of what they need and want. Such an end can be achieved only if the mother-tongue is made the medium of literacy. But our motives are exposed while we insist on the one standard language for everybody from the deserts of Rajasthan to Bihar and from the industrial—mineral belt of the Himalayas to the Vindhyas. This means that we, in the heart of hearts, want to train the illiterates to become our passive listeners and followers. This is like Ravana waking up his brother Kumbhakarana from his long slumber not to seek his advice on the issue of war against Rama but just to support him in his wrong designs.

### **the question of national language and national integration**

A curious theory advanced sometimes is that we should use standard Hindi as the medium of literacy to promote emotional integration in the nation and guard against the dangers of fissiparous trends likely to be produced by an over-consciousness of linguistic differences. Hindi, it is said, is the national language and so we want the illiterates to use that for their literacy and thus for the promotion of national integration. Now, what a noble and patriotic theory is this!

### III

## PROBLEM OF PRESERVING THE VITALITY OF EDUCATION— TEJASVINAV-ADHITAM-ASTU

### the "fad" of the "mad" mahatma

One thing that Mahatma Gandhi emphatically said was that the educative process should be self-supporting and this, he said, was the 'acid-test' of true education.

But, was it not a 'fad' of the 'mad' Mahatma? If education is to be supported by itself, what is the purpose of having a government and paying the taxes? Why should not education be free of cost? Is it not said with wisdom that a democratic government must educate its masters? Can the poor exploited masses ever hope to become literate without the Government bearing the cost?

### the fallacy of education as a free gift from the government

Let us examine the above questions and doubts against Gandhi's advice of self support in education. The first thing is: How can a facility arranged by a State be free of cost for the people as long as the people are not exempted from paying all sorts of taxes? We may agree that the tuition or education fees charged by the government are indirect or imperceptible, but, how can such an arrangement be a gift free of cost? So, the question is: Why should the illiterate adults or the general public pay for their literacy by the long, indirect way? Why should the people contribute a thousand rupees to Delhi so that their

village might receive a hundred to be spent on their education? Is it not high time we get rid of the alluring fallacy of "free" education as a gift from the State?

On the other hand, the suggestion of the Mahatma is: You save the taxes you pay for education and meet the expenses of your education from undertaking such productive work as will help you to be educated and also to maintain your teacher and your school. Now, which is the cheaper way?

### the thrifty and the affluent way of employing pundit parmanada

On the one side there are a hundred illiterates in the village and on the other, there is Pundit Parmananda who can make them literate and has, therefore, to be employed. Now what is cheaper for the illiterates? To employ the Pundit directly or to employ an education minister in Delhi or the State capital to employ the Pundit in the village through the long long channels? So we see after all that the Mahatma was not mad in suggesting that education should be self-supporting. By asking the public to be self-supporting in education, the Mahatma meant that a government need not be involved to employ the teacher to educate the pupils and that they should employ their teacher (which means support the teacher). A commodity supplied free of charge by the government is the costliest for the public.

### measure of government commensurate to measure of non-education

But that is not the whole point. There are far more important issues involved than mere

If a tongue exists orally without damaging the cause of national integration, it cannot become un-patriotic by assuming the alphabet. We should be clear as to what is objectionable. Are we objecting to the very existence of the local tongue or to its assuming the alphabet? Or, do we mean that local dialects are harmless as long as they do not assume the alphabet and if the alphabet is introduced the mother-tongues of the people become dangerous? It is like the tailor's tale who having been asked to tailor a coat for a prisoner returned with the theory that the prisoner's body did not fit the coat and so the prisoner should be asked to change his body and the jail superintendent thus had a justification for not providing a coat for the prisoner.

As educationists, let us remember that it is in the soil of the mother-tongue that the roots of our whole cultural heritage and our finest sentiments are planted and nourished. Literacy could never aim to isolate the people from this native soil and deprive them of their natural nourishment.

It is not the symbols of the alphabet that make an adult nervous in the literacy class but it is the change of the medium from the local speech to the standard Hindi that makes him nervous, lose his self-confidence and leave the class.

So, Gandhi had laid it down that only the mother-tongue should be the medium of education. Shall we take advantage of his advice in our adult literacy work? Of course, this would mean that WE must assume student-ship ourselves first and learn the mother tongue of our pupils before we are qualified to teach them literacy. That would be a very useful and healthy example to inspire the illiterates to become our pupils in return,

monetary considerations. One of the most important functions of education is to teach man to manage his affairs through co-operative self-discipline and to minimize the need of the coercive control by a government. The measure of Government control on a society is commensurate with the measure of non-education prevailing in that society. Hence, the more the measure of right education, the less the measure of government. Real peace and prosperity cannot come as long as we continue to enjoy the luxury of employing these omnipotent, omnipresent, gigantic structures of the modern governments instead of educating ourselves to manage ourselves by voluntary discipline, voluntary sense of duty and voluntary cooperative effort.

### **means of education to tally with the ends of education**

So, if that is the aim of education, why should the means of education be different from its ends? If education is to teach us to manage ourselves, why should we not first of all manage our education ourselves? Can we hope that an agency, which, by nature is coercive, even with the best of intentions, can effectively teach or thinking for ourselves?

### **the appalling results of mis-education we are undergoing**

The lack of education prevailing on such a gigantic scale in our society is largely due to the fact that we have been paying our fees and taxes to the Government which is too pre-occupied elsewhere. According to our constitution, education is a State subject. But that does not exempt the Central Government from maintaining an education ministry. In the same

manner, why should the village be exempted from management of its own education? By shifting our responsibility of educating ourselves, we have lost all intimative in this regard.

We are so used to the present phenomenon in education that the extremely deplorable and disappointing mess in this area of national development does not strike us as hard as it should. What the nation has been undergoing is not education but mis-education.

Could the situation of the country have become so hopeless and pitiable if we had heeded to Gandhi's call of the educational reconstruction he had proposed? Shall we call a halt to this situation even now? Will the people awake to their responsibility and care to disallow the politicians hankering after power and personal fortunes to play with the destiny of the nation? Shall we have the courage to relieve the State from the planning and execution of our education and use our own (i.e. the people's) common sense in this important sphere of national and personal life?

### **self-supporting education, the only way to survive the dilemma**

Gandhiji foresaw all this and therefore he had said that self-support was the acid-test of Basic Education. Unless education was self-supporting and unless the people ceased to depend on the State for their educational emancipation, education would neither be right nor be abundant. And if education continues to be wrong, on the one hand, and scarce, on the other, the downfall of our country and the failure of our democracy are inevitable. The situation is so dire that the government should now be asked to quit education and to hand it over to the people themselves.

Education is the struggle of mankind to reduce the necessity of the necessary social evil which a government is at its best. The relation between the remedy and the disease. To give education in the control of the government is to make the disease itself the doctor. So, the people should not be taxed for educational services and the people should co-operate voluntarily and manage their education by making work the means of education so that education generates money as well as human development. There is no other way out of the present dilemma.

### **the venomous obstinacy of our educators**

The venom of the present system of education is that it deprives the student life of productive, responsible work. Education has virtually become a luxurious parasitism and by the time a student leaves the college or the university, he has become a seasoned parasite with a dead conscience. With such "educated" persons as the managers of our society how can the affairs be better than what they are?

That is why Gandhiji wanted the student to support his education by productive work. But, we would not listen to him. We would have ample time for long strikes and long vacations and all sorts of hooliganism for the students as the "extra-curricular" activities but the "No Admission" notice for productive work will not be removed from the premises of educational churches. If we care to think in an objective manner, we shall be convinced that the illiterate workers of the country are not as urgent a problem as the literate parasites produced by our unproductive, exploitation-oriented educational system. But would we care to think and accept the objective conclusions?

## duty of the government

Gandhiji had identified himself with the sufferings of our poor-motherland. He had also seen, as a great visionary, the impact of western trends on the destinies of the innumerable masses of India. He had imbibed, through life long penance of truth, non-violence, fearlessness and detachment, a very rare insight into the present world crisis and he had showed us and the whole world a way out. But we in India specially our West-oriented leaders, have thrown the precious advice of Gandhi away and are now perplexed. But, I think, Gandhi will have to be adopted by the West first and then India will import him. We are sick, and by the bed side lies the only remedy, but we shall not have it because it was prescribed by our own man. How deep into our roots has inferiority complex crept.

It is true that the people have elected the Government, but, it is truer that this elected Government has failed—in spite of good intentions—to solve the problems of the people at large. The main cause of the failure is that the Government has made education a great liability on the country instead of making it an asset as was planned by Gandhiji. In every sphere, we have preferred centralization to decentralization. In the words of E.F. Schumacher, our planning and ambitions are “goods-oriented” and not “people-oriented”. He says “He (Gandhi) knew that mass production industry could not solve India's problems, that the salvation of India is impossible without the salvation of the villages and thus he came to the conclusion that it is not mass production but production by the masses that can do the trick.”

The only solution to our problems and failures on the production front as well as on the front of national character, lies in the giving back to the homes and the hamlets the

decentralized industries which have been snatched away from them in the illusion that man needs only the goods produced by work and not the creative, educative, productive, freedom-giving process of work itself.

It is the duty of the Government to turn-back, even now, and base their planning on decentralized work. Work snatched away from man is not only his bread snatched away, but it is his education, his dignity, his freedom snatched away and it is the loss of the man himself. An individual deprived of work becomes a liability on society instead of the asset that he could be. The one quarter of a century after Independence amply proves that there is no salvation for the country except through work-oriented education and work-oriented education is not possible, in a real and a sincere manner unless the nation is prepared to base her planning on decentralized industry.

This would be a new dimension and it would be the educational one. Education has to be wedded to productive work, to industry, and only thus will education obtain and preserve a vitality which is absent today. Then alone, man will be an asset and will be valued as man. Then alone shall we have real democracy or real freedom.

## duty of the adult educators

We should take it for granted that the government is deaf. A government which did not care to listen to Gandhi, cannot be expected to listen to anybody else. But, there are factors present even today which give cause for hope. First, the vested interests which buried the Basic Education are themselves alarmed by the sorry mess to which they have the country, and particularly its education system. Secondly, the adults are pupils endowed with prudence. Their tough tenacity and passive resistance to

the traditional concept of literacy are very hopeful signs. Most probably, the adults will not accept literacy until it is based on the Gandhian principles of Basic Education. And if, somehow, they are manipulated into accepting the empty and purposeless literacy, that literacy will create more problems than can be solved by it. Literacy is like electricity from which one can get light but if used recklessly it can also give dangerous shocks. As the electric wires have to be made safe by insulation before electricity is used in homes, so has education and literacy to be work-oriented before these can be really useful to the individual and the society.

To summarize, we have to understand that man is man and not just an animal, there is growth in man through educational experience as a tree bearing its fruit, man grows not in isolation from his physical, social, linguistic, cultural, economic environment but through interaction or the process of reciprocal give-and-take. This reciprocal give-and-take process is effected by the phenomenon called work, work is not a biological need for survival but it is a peculiar human need which is educational. Work as an educational nutrition can go on only in relation to the immediate, the particular and the local problems and surroundings of the educant. Mother tongue is an indispensable medium of literacy and education must be productive and self supporting to preserve its real and vital nature. Adult educators will do well to consider these points, since, fortunately the government has done very little in the field of adult education and it is still in the hands of non-governmental voluntary agencies.

# the cult of literacy

Ananda Coomaraswamy

IT was possible for Aristotle, starting from the premise that a man, being actually cultured may also become literate, to ask whether there is a necessary or merely an accidental connection of literacy with culture. Such a question can hardly arise for us, to whom illiteracy implies, as a matter of course, ignorance, backwardness, unfitness for self-government. For us, unlettered peoples are uncivilised peoples, and vice versa—as a recent publisher's blurb expresses it: "The greatest force in civilisation is the collective wisdom of a literate people."

There are reasons for this point of view; they inhere in the distinction of a people (or folk) from a proletarian, that of a social organism from a human ant heap. For a proletariat, literacy is a practical and cultural necessity. We may remark in passing that necessities are not always goods in themselves, out of their context; some, like wooden legs, are advantageous only to men already maimed. However, it remains that literacy is a necessity for us, and from both points of view: (1) because our industrial system can only be operated and profits made by men provided with at least an elementary knowledge of reading, writing and arithmetic; and (2) because, where there is no longer any necessary connection between one's "skill" and one's "wisdom," culture depends on our ability to read the best books.

If, on the principle that misery loves company, we are planning to industrialise the rest of the world, we are also in duty bound to train it in Basic English, or words to that effect—American is already a language

of exclusively external relations, a tradesman's tongue-lest the other peoples should be unable to compete effectively with us. Competition is the life of trade, and gangsters must have rivals.

But I am more concerned here with the assumption that, even for societies not yet industrialised, literacy is an unqualified good and an indispensable condition of culture. The vast majority of the world's population is still unindustrialised and unlettered, and there are peoples still completely unspoilt (for instance, in the interior of Borneo); but the average American judges that "unlettered" means "uncultured," as if this majority consisted only of a depressed class in the context of his own environment. Civilised countries overlook the fact that education is never creative, but a two-edged weapon, always destructive; whether it destroys ignorance or knowledge depending on the educator's wisdom or folly.

This has been recognised by men who are not merely literate but also cultured, for instance the late Professor G.L. Kittredge writes: "It requires a combined effort of the reason and the imagination to conceive a poet as a person who cannot write, who sings or recites his verse to an audience that cannot read.... The ability of oral tradition to transmit great masses of verse for hundreds of years is proved and admitted.... To this oral literature, as the French call it, education is no friend. Culture destroys it, sometimes with amazing rapidity. When a nation begins to read...what was once the possession of the folk as a whole becomes the heritage of

the illiterate only, and soon, unless it is gathered up by the antiquary, vanishes altogether." A point of further importance is this: that the traditional oral literature interested not only all classes but also all ages of the population; while the books that are nowadays written expressly for children are such as no mature mind could tolerate. It is now only the comic strip that appeals alike to children, who have been given nothing better, and to adults who have never grown up.

In the same way, folk songs are lost to the people at the same time that they are collected by antiquarians, and the preservation of a people's art in folk museums is a funeral rite, for the patient has already died. Nor must we suppose that "community singing" can take the place of folk song; its level is no higher than that of our undergraduates' elementary textbooks.

The problem involved is both of languages and what is said in them. As for language, let us bear in mind that there is no such thing as a "primitive language," in the sense of one having a limited vocabulary fitted only to express the simplest external relationships. It is truer to say that languages tend to be reduced to the "primitive"; for example, a large percentage of Western "literacy" is a two-syllabled affair.

In the seventeenth century Robert Knox said of the Sinhalese that "their ordinary Plowmen and Husbandmen do speak elegantly, and are full of complement. And there is no difference of ability and speech of a Countryman and a Courtier." Abundant testimony to the same effect could be quoted from all over the world; Douglas Hyde in writing of the Irish, J.F. Campbell on the Scottish Highlanders, St. Barbe Baker in Africa Drums, W.G. Archer in describing the Uraon tribal system are all agreed that literacy

destroys the memory, weakens the vocabulary and undermines the poetic foundations of the vital functions of life.

A really "savage" situation and point of view are recorded by Tom Harrison, from the New Hebrides. "The children are educated by listening and watching... Without writing, memory is perfect, tradition exact. The growing child is taught all that is known.... Intangible things co-operate in every effort of making, from conception to canoe-building.... The natives converse together with that accuracy and pattern of beauty in words that we have lost." And what do they think of us? "The natives easily learn to write, but regard it as a curious and useless performance. They say: 'Cannot a white man remember and speak?'.\*

\*The relevant passage from Tom Harrison is as follows—

The children are educated by listening and watching. Their parents like to be near them. They learn thus the innumerable legends, songs, observances and points of etiquette, the vast vocabulary of objects, knots, animals and plants, agriculture, the calendar, and the reef. They learn to make the many intricate, labyrinths of continuous line drawing in sand, which are so necessary to knowledge now and hereafter. These must be learned to perfection, with their stories and certainties—none may forget. They play games with string and fingers, drawing, water fights, races, and mud wallows, spider hunting, birds-nesting, shooting with miniature bows, spears to the fish, stone slinging at native rats, and climbing for coconuts at moonlight when they sing sweet jingles in a language whose meaning is lost....

The native is first an agriculturist, second an artist: never a scientist. He accepts what is known, without further question. There is no artistic native or respect for art: because all are artists and their art is an essential branch of their green uniform tree. Naturally some will be finer carvers, more exquisite dancers or special story-tellers. No man is unable to curve, dance and tell stories.

Songs are a form of story-telling. Words are a native art with an intricate circular pattern. The lay-out and content in the thousand myths which every child learns (often word perfect, and one story may last hours) are a whole library. While every incident in daily life can form a story".

TOM HARRISSON *Savage Civilisation*.

When we set out to educate the South Sea Islanders it is generally in order to make them more useful to ourselves, or to convert them to our way of thinking; not having in view to introduce them to Plato. But if we or they should happen upon Plato it might startle both to find that their protest is also his. "For," he says, "this invention (of letters) will produce forgetfulness in the minds of those who learn to use it.... You have invented an elixir not of memory but of reminding; and you offer your pupils the appearance of wisdom, not true wisdom, for they will read many things without teaching, and will therefore seem to know many things when they are for the most part ignorant and hard to get along with, since they are not wise but only wiseacres."

There is nothing peculiar in Plato's point of view; it is one, for example, with which every cultured Indian unaffected by modern European influences would agree wholly. From the Indian point of view a man can only be said to know what he knows by heart; what he must go to a book to be reminded of, he merely knows of. There are hundreds of thousands of Indians even now who daily repeat from knowledge by heart either the whole or some large part of the Bhagavad Gita; others more learned can recite hundreds of thousands of verses of longer texts. It was from a travelling village singer in Kashmir that I first heard sung the Odes of the classical Persian poet Jalalu'd-Din Rumi. From the earliest times Indians have thought of the learned man, not as one who has read much, but as one who has been profoundly taught by a great master.

Plato maintains that one who is in earnest will not write but teach; and that if the wise man writes at all, it will be either only for amusement—mere "belles lettres"—or to provide reminders for himself when his

memory is weakened by old age. We know exactly what Plato means by the words "in earnest"; it is not about human affairs or personalities but about the eternal varieties, the nature of real being and the nourishment of our immortal part, that the wise man will be in earnest.

All serious students of human societies are agreed that agriculture and handicraft are essential foundations of any civilisation; the primary meaning of the word being that of making a home for oneself. But, as Albert Schweitzer says, "We proceed as if not agriculture and handicraft but reading and writing were the beginning of civilisation."

In normal societies, the necessary labours of production and construction are no mere "jobs" but also rites, and the poetry and music associated with them are a kind of liturgy. The lesser mysteries of the crafts are a natural preparation for the greater mysteries of the kingdom of heaven. But for us in America, who can no longer think in terms of Plato's divine justice of which the social aspect is vocational, that Christ was a carpenter and the son of a carpenter was only an historical accident not a universal truth.

It is not easy for any foreign teacher to acknowledge Ruskin's truth—that there is one way only to help others, and that is, not to train them in our way of living, but to find out what they have been trying to do, and were doing before we came, and if possible help them to do it better. We are dealing with peoples whose intellectual interests are the same from the top of the social structure to the bottom, and for whom our unfortunate distinctions of religious from secular learning, fine from applied art, and significance from use have not yet been made.

# fifteen to twentyfive

H.R. Gugnani

## why 15 to 25

The Fifth-Five-Year Plan for Adult Education proposes to shift emphasis from the age-group 15-44 to the age-group 15-25. It is not because the Fifth Plan wants to forget about persons above 25; it is the severe limitation of resources that has obliged the planners to make a hard choice among several alternatives. The Central Advisory Board of Education, the Planning Commission and the Ministry of Education, all are agreed that the concentration of adult education efforts on the age-group 15-25 should produce better and quicker results.

This new strategy in adult education is based on certain practical considerations. Firstly, the size of this age-group (15-25) is quite large, i.e. about 9 crores in a total population of over 54 crores. More than half of them viz. about 4.76 crores are totally illiterate who are in urgent need of functional literacy. Secondly, the members of this age-group are generally alert, inquisitive, impressionable and capable of being inspired by emotional commitment to service of the people and the country. As educands, therefore, they

offer a rich and potential material which is much easier to handle than either the children of younger age or mature people of higher age. Thirdly, from the cost-benefit point of view the educational programme for them is likely to yield best results because (i) such education will necessarily be part-time and informal; (ii) its returns are immediate and effective owing to their becoming more productive and influential members of society within a short-time; and (iii) the benefits to society are more lasting, due to their active service to the community for a longer period of time than others in the higher age-group.

## “who is who” in 15 to 25

What is the size of the age-group 15-25? What are the educational levels of its members? How many of them are males and females? How many of them live in rural and urban areas? How many of them are workers and non-workers. What is the broad occupational distribution of the workers in this age-group? Information about these vital statistics should

**Table I**  
**Size of the Group vis-a-vis Total Population**  
(Figures in hundreds)

<i>Classification</i>	<i>Total</i>	<i>Male</i>	<i>Female</i>	<i>Rural</i>	<i>Urban</i>
Population in the age-group 15-25	905,983	466,893	439,090	691,560	214,423
Total population.	5,454,958	3,824,223	2,637,310	4,368,920	1,086,038

help in devising suitable educational programmes for persons in the age-group in accordance with their respective needs. The information in Tables I to V based on 1971 census figures (Estimated from one percent sample data) is indicative of these statistics.

The tables reveal useful information which should help in planning and executing meaningful programmes of non-formal education for the different categories of persons comprising the age-group 15-25.

The size of the age-group 15-25 is about one-sixth of the total population of the country (or say about 17 per cent). Numerically, their strength is about 9 crores in a total population of above 54 crores. The distribution of 9 crores in this age-group between men and women is more or less even (4.65 crores males as against 4.35 crores females). However, a very large majority of the members of this age-group live in rural areas (about 7 crores as against 2 crores in urban areas).

More than half the members of the age-group 15-25 (viz about 4.76 crores against a total of 9 crores) are totally illiterate. The next largest groups, in terms of educational attainments, are primary and middle pass (about 1.25 crores each) followed by matriculates about 82 lakhs; Graduates and above (about 21 lakhs); technical diploma or certificate holders (about 1.35 lakhs); and non-technical diploma or certificate holders (about 0.65 lakhs). The remaining about 70 lakhs, are literates without any educational level.

A very large portion of the age-group 15-25 comprises non-workers (about 5.22 crores non-workers against 3.78 crore workers). These 5.2 crores non-workers consist largely of housewives and others engaged in household duties (about 3.10 crores) followed by full-time students (about 1.41 crores); Dependants (about 51.38 lakhs); beggars (about 0.80 lakhs); Inmates of Penal, Mental and

**Table 2**  
**Educational Levels of Members of The Group.**  
(Figures in hundreds)

<i>Classification</i>	<i>Total</i>	<i>Male</i>	<i>Female</i>	<i>Rural</i>	<i>Urban</i>
1. Illiterates.	475,956	179,563	296,393	419,276	56,680
2. Literates (without educational level.	73,010	44,522	28,488	57,210	15,800
3. Primary level.	129,349	80,143	49,206	94,128	35,321
4. Middle level.	130,649	92,752	37,897	80,724	49,925
5. Matriculation level/Higher Secondary level.	85,087	61,769	23,318	37,323	47,764
6. Non-Technical diplomas and certificate holders.	689	478	211	322	367
7. Technical diploma/certificate holders.	1,496	820	676	551	945
8. Graduates and above.	22,264	17,091	5,173	14,823	7,441

**Table 3**  
**Size of Non-Workers in The Group.**  
(Figures in hundreds)

<i>Classification</i>	<i>Total</i>	<i>Male</i>	<i>Female</i>
(i) Full-time students	141,752	109,531	32,221
(ii) Household duties.	309,206	3,685	305,521
(iii) Dependants.	51,388	25,083	26,305
(iv) Retired, Rentiers and persons of independent means.	283	232	51
(v) Beggars, Vagrants, etc.	796	554	242
(vi) Inmates of Penal, Mental and Charitable Institutions.	451	360	91
(vii) Others	18,085	15,585	2,500

**Table 4**  
**Size of Non-Workers Classified as 'Others' in The Group According to Educational Levels**  
(Figures in hundreds)

<i>Classification</i>	<i>Total</i>	<i>Male</i>	<i>Female</i>	<i>Rural</i>	<i>Urban</i>
(i) Illiterates.	2845	2467	378	1600	1245
(ii) Literate (without educational level)	1150	1064	86	631	519
(iii) Primary.	2535	2342	193	1138	1397
(iv) Middle.	4400	4042	358	2258	2142
(v) Matriculation/Higher Secondary.	5745	4645	1100	3222	2523
(vi) Non-Technical Diploma/Certificate.	62	25	37	50	12
(vii) Technical Diploma/Certificate.	262	167	95	171	91
(viii) Graduates and above.	1086	823	263	432	654
<b>Total</b>	<b>18,085</b>	<b>15,575</b>	<b>2,510</b>	<b>9,502</b>	<b>8,583</b>

Charitable Institutions (about 0.45 lakhs); and Retired Rentiers and persons of Independent means (about 0.28 lakhs). The remaining non-workers-classified as 'others' are about 18.19 lakhs. As these 18.19 lakhs non-workers constitute largely the un-employed youth in the age-group 15-25, it is important to know about the educational levels of these persons in order to conceive suitable educational or training programmes with a view to making them employable. The largest number in this category of unemployed youth in the age-group 15-25 consists of matriculates (about 5.78 lakhs) followed by middle pass (about 4.40 lakhs); illiterates (about 2.90 lakhs); primary level (about 2.56 lakhs); literates without any educational level (about 1.15 lakhs); graduates and above (about 1.08 lakhs); Technical diploma/certificate holders (about 0.26 lakhs) and non-technical diploma/certificate holders (about 0.06 lakhs).

Among the workers in the age-group 15-25, numbering about 3.78 crores, it is important to know about the major sectors of economy in which they are engaged, as this should help in constructing suitable non-formal educational programmes for them with a view to improving their occupational efficiency and educational attainments. The largest sub-group in this category of about 3.78 crores workers is that of cultivators (about 2.71 crores), followed by agricultural labourers (about 77 lakhs); persons engaged in livestock, forestry, fishing, hunting, plantation, orchards and allied activities (about 6 lakhs); in manufacturing, processing, services and repairs connected with household and other than household industry (about 7.45 lakhs and 0.61 lakhs respectively); in transport, storage and communication services (about 1.94 lakhs); in construction (about 1.84 lakhs and in mining and quarrying (about 0.92 lakhs). The remaining about 12 lakhs are engaged in other services.

**Table 5**

**Broad Occupational Distribution of Workers in the Group**

<i>Occupation</i>	<i>Total workers (All age-group) (Males and Females).</i>	<i>Total workers in the age group 15-25 (worked out on the basis of 8.5% of the total working in the age-group.)</i>
(i) Cultivators.	3,234,066	2,70,505
(ii) Agricultural labourers.	908,422	76,702
(iii) Livestock, Forestry, Fishing hunting and plantations orchards and allied activities	73,242	6,103
(iv) Mining and quarrying.	11,024	918
(v) Manufacturing, processing servicing and repairs		
(a) Household Industry	89,486	7,452
(b) Other than household industry.	72,074	606
(vi) Construction.	22,076	1,839
(vii) Trade and Commerce.	72,996	6,083
(viii) Transport Storage and Communications.	23,378	1,948
(ix) Other Services.	143,316	11,943

*Why Not*

**Report**

On important events and on work being done in the field. Give emphasis on methods.

**Contribute**

Papers on enquiry and opinion. Papers containing opinion and ideas should not be too general but specific and topical. Well documented research papers on any aspect of adult and continuing education, including agricultural extension, would be very much appreciated.

**Communicate**

On issues and controversies raised in this Journal or elsewhere.

Material for publication in the Journal should be typed in single space leaving adequate margin and sent to:—

Anil Bordia,  
Editor,  
Indian Journal of Adult Education,  
Post Box 221  
Jaipur 302001.

# aifea's concern for adult education

ism, regionalism and sectarianism were rife among a large number of educated Indians. Mere spread of literacy would not counteract these tendencies or develop positive values which would sustain a secular, democratic, rational and Socialistic society. The aim of adult education programmes, broadly speaking, should be to impart relevant knowledge and information, develop necessary skills and promote correct attitudes for such a society. But to enable adult education to play this vital role, it should be fashioned, chiselled and sharpened suitably, requiring conscious effort and conscious planning.

In a reference to adult literacy it was pointed out that elementary literacy was infructuous, and a waste of time and effort. It should be functional in primarily three respects: 1) It must enable the learner to understand the rights, duties and obligations of living in a free, democratic and secular society, and to meet the various demands of literacy which such a society makes. 2) It should enable the learner to lead a healthy, planned and well-adjusted family life. 3) It should be work-oriented, enabling the learner to make a greater and more fruitful contribution to the productive capacity of the country. This involves i) Development of proper teaching methods and instruction materials; ii) Training of teachers and supervisors; iii) Preparation of follow-up literature; and, iv) Follow-up programmes.

It was also argued that in view of the magnitude of the problem and restriction of funds, the age group 15-25 should be given priority. As the Government was committed to the expansion of primary education, it would be a good strategy to use the primary schools, wherever possible, and to make use of the existing equipment, personnel and accommodation for adult literacy programmes, though the teachers would have to be oriented

for teaching adults, and the instruction materials would have to be quite different. This would help to develop the primary schools into proper community schools and educational centres for adults.

It was also reasoned that the universities could play an important role in adult education, as distinct from adult literacy programmes, through extension and extra-mural courses.

It stressed that education of the workers should be made obligatory on the industrial management, and the Government, as the biggest single employer in the country, should take the lead in this respect.

It was also pointed out that in the various development schemes of the Government amounting to thousands of crores of rupees, a very small percentage, say 2 per cent-5 per cent should be earmarked for the training and education of the participants and beneficiaries. The absence of such training and education prevents the effective implementation of such schemes.

It also stressed that mass media and the new instruction media like the radio and television, should be used primarily for the purpose of relevant education of adults.

The role of voluntary agencies properly equipped for this purpose, was also given due importance.

After the approach paper, Shri S.S. Chakrovorty, Principal, Gram Sevak Training Centre, Ramakrishna Mission, Narendrapur, presented a paper on Adult Education and Rural Development. He argued that adult education, to be successful and meaningful, must relate itself with the methods by which the learners could improve their economic conditions, which means that in a major way it must be vocationalised. If literacy is coupled with vocational education, then a farmer becomes a better farmer and an artisan a better artisan,

**T**HE All India Federation of Education Associations affiliated to WCOTP organised the All India Educational Conference at Calcutta in December 1973. One of the sections of the Conference dealt with adult education. The sectional meeting was held on 30th at the Presidency College auditorium. The President was Dr. S.N. Sen, Vice-Chancellor, Calcutta University, the Federation Secretary Major R.S. Misra, and the local Secretary Satyen Maitra.

The theme of the 1973 conference was Educational Planning for National Development. In the approach paper, therefore, the emphasis was on adult education as a tool of development. It was argued that there was no automatic co-relation between education and development. Education could, if it so chose, engender reactionary, regressive attitudes. Casteism, communal-

The new technological developments in the field of agriculture and animal sciences have opened up increasing possibilities of rural development; but these possibilities are utilised by only a small, rich section of the village people at the cost of the vast, illiterate majority.

With the nationalisation of banks, a large number of rural intermediaries between the loanee farmer and the bank, have come into existence. At every stage, from filling up the loan application forms to the actual disbursement of loan amount, they exploit the ignorant, poor rural masses.

Similarly, with the change of tenancy laws in favour of the landless people, a new need has arisen, to make these people understand the implications of these changes, and to prevent their being exploited by the unscrupulous intermediaries. The list can be multiplied. Professor Chakrovorty suggested that adult education should be imparted both at the institutional level, and at the level of the farmer's own village and family situation.

At the institution level, Professor Chakrovorty suggested that there should be a development centre or a growth centre in each district which would combine adult education with (i) development programme, (ii) extension, and (iii) research or investigation.

At the farmer level, leadership training was necessary, which would help in turning out motivators and adopters. He also suggested that there should be varied and specialised training for the farmer; particularly the young farmer. He also pointed out that farmer education need not be confined at the development centre or growth centre, exclusively, but could be at the villages, on the farmer's land, and at the most dynamic and active places where the people assembled, such as the youth club, the library, the co-operative stores and the panchayat offices.

Professor K.K. Mookerjee, Head, Department of Education, University of Calcutta also presented a paper. He said it should be realised that leaving a large sector of the population in an educationally backward condition was a heavy drag on the nation as a whole. He suggested that the 'Open University' and use of the multi-media system of mass communication could further adult education. He cited the instances of various voluntary organisations doing useful work in the field of adult education. He also suggested that university and college students should take up the spread of literacy as a part of compulsory social service work. He dwelt on the various aspects of adult education and concluded by saying that parent education was more important than child education.

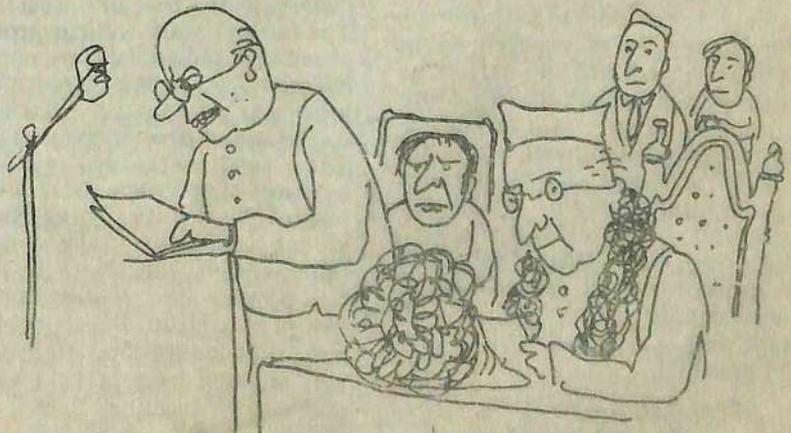
Dr. S.N.Sen, in a comprehensive talk, covered all the important aspects of adult education. He said that there was a close relationship between economic development and spread of literacy. In all the developed

countries, without exception, the literacy percentage is high. In fact, development is dependent on education and more specifically, adult education. Education was neglected in our country but in the scale of priorities it should be given topmost place. Our crisis, he said, was due to a faulty system of priorities. Professor Sen also emphasised that literacy must be functional and should be work-oriented.

He also felt that it should be obligatory on the students to take up the work of adult literacy. He agreed that the education of the workers and their children should be the responsibility of the industrial management. In rural areas he thought that voluntary agencies could perform more effective service than the government. Lastly, he mentioned that a large and purposeful adult literacy programme could utilise a number of the educated unemployed, providing relief for them.

R. S. Misra

## Farewell to Poverty



*"Now that we've said farewell to poverty, we might take up adult illiteracy eradication next...."*

# **institute of adult education, university of ghana, legon**

villages throughout the country, and is, in many ways, the instrument through which the University meets its real and relevant obligations to the country outside its walls.

The teaching programme of the Institute is carried out by the Institute's own academic staff, a considerable number of internal university lecturers, and some 400 qualified graduate tutors and specialists employed on a part-time basis.

Basic academic education and courses in vocational and professional studies are provided as well as degree courses of the University of Ghana through a system of evening classes throughout the country.

Liberal education programmes are also run by the Institute, in close co-operation with the People's Educational Association—a voluntary, independent, non-sectarian and non-party-political association which helps with local organization of classes.

Two new developments were added to the Institute's varied range of educational activity as from the beginning of the 1970/71 academic session: (1) An agricultural extension service which would operate on an experimental basis in the Awudome area in the Volta Region, using the Awudome Residential Adult College as the base of operations. The project aims to help groups as well as individual farmers to overcome obstacles they meet, introduce improved farming methods and develop rural crafts. Three small workshops will also be established in the near-future to provide the beginnings of a village technology. The aim is to use adult education to help the people to realize better living standards for themselves and thus contribute to general national advancement; (2) Correspondence education, which is aimed at increasing the range and catchment of the Institute's teaching.

The Institute has a Research and Teaching Unit which will run a post-graduate diploma course in adult education from the beginning of the 1973/74 academic session. The diploma course in Adult Education is to provide an opportunity for persons engaged as training officers, adult teachers in various fields, extension and personnel officers, organisers of voluntary organisations and officers in community development to understand the conditions for, and the processes of, adult learning. This is a full year residential course or two-year part-time course if the number of applicants should justify it.

The Course work is arranged in the following areas:

## **purpose and function in adult education**

The relevance of adult education in various social situations, e.g., the historical role of adult education in some developing countries. The functions of adult education in developing countries. The claims of training, education and recreation: vocational and non-vocational needs.

## **organisation and administration of adult education**

Some relevant sociological concepts. Institutions of adult education in Ghana in traditional and colonial days. Contemporary institutions: structure and organisation. An examination of some concepts of organisation and management relevant to the role of the adult education organiser.

## **adult learning and teaching**

Psychology and human learning; setting educational objectives; principles of programming; methods in adult teaching.

(For further information contact Dr. E Ampene, Director of the Institute).

**T**HE Institute of Adult Education, founded in 1949 as the Department of Extra-Mural Studies of the University College of the Gold Coast, is an integral part of the University of Ghana and is engaged in the public provision of university-based adult education. This programme aims at the educational advancement of the adult citizens of Ghana and their active participation in the improvement of the country's economy, in participation in the improvement of the country's economy, in particular, and its political, social and cultural life in general.

The Institute tries to carry the University presence, its standards and its disciplines from Legon into towns and

# athabaska's "newspaper university"

logy: The Scientific Context. The course has been developed by Dr. T.S. Bakshi, the university's senior tutor in environmental sciences, and serves as an introduction to the structures and processes of the natural environment.

The course is for those "who want to learn without the complications of classroom attendance or living on campus", for a tuition fee of \$75.

Each Saturday from October 6 on, The Journal is publishing 12 half-page articles (prose and visuals) to introduce the subjects of the course in a general way. This means that readers who don't enrol can still learn much about the science of ecology.

Readers who wish to study in depth (for credit or not) register as a students of Athabaska and receive complete self-study packages in the mail including 30 printed instructional booklets. Forty audiotape cassettes with explanatory discussions by experts are also included. The booklets and tapes guide each student through mastery of the subject through interactive study questions and practice exercises.

Students may progress at whatever speed they choose. Completion of each portion of a Learning Series will be determined by student performance on a test covering information studied in that unit. When a subject has been mastered, the student moves on to new work.

Central to Athabaska's reason for this pilot project in self-study is its belief "that learning can occur in the minds of those who study, whether they are in a classroom or in the privacy of their homes. The age and previous educational experience of a student matter less than his or her curiosity and willingness to learn. Athabaska will exist wherever its students may be...."

Athabaska also exists because it has had a new kind of university president. When Dr. Tim

Byrne took on the uncertain future of Alberta's fourth university in 1970, he had already proved through several successful careers—his commitment to the concept of continuous learning that Athabaska now stands for.

The students cover a wide map of backgrounds. They include people in middle management who are finding that ecology impinges in some way on their jobs, drop-outs from other universities who want to get "back in the stream," interested housewives, a few teachers, and a general public wanting to know more about ecology.

Rather than become pre-occupied with the technology of media delivery systems, Athabaska took the simplest route first and linked audiotape and workbook. The tape carries much of the content and refers to illustrations and materials in the workbook, and then back to the tape. The study units go through a rigorous process and were first tested on a group of average students. They liked the interchange between book and tape because it made them feel involved in the process.

Kept in the forefront is the idea that the Learning Series is not a university imposing itself on students. Quite the reverse.

"Our materials will be based more on feedback from students than on academic say—so, which makes our approach different from the British Open University," observed Dr. Ray Laurensen, Chairman of communication system.

The credit aspect is being played down. People haven't indicated strong views on this, appearing to be more interested in learning more about ecology. There is a mastery test which can be taken at the end of the course, but no one wants this to be a serious hurdle to new learners. Since each study unit has a sequence of tests, the mastery test would be like "icing on the cake."

WHEN Athabaska University, Alberta, Canada, tallies up enrolment it does not count on-campus heads. It counts pins on an Alberta map.

The 150 pins mostly cluster around Edmonton. These 150 citizens are the vanguard of a new kind of learner and a new approach to learning for a new type of university.

These learners of diverse age and background are enrolled in the "newspaper university", taking a self-study course on World Ecology promoted each Saturday in The Edmonton Journal, presented by a university without campus or buildings, and endorsed by Alberta's Department of Advanced Education.

On September 28 a full-page in The Journal announced the first of Athabaska's pilot project Learning Series, a university-level credit course entitled World Eco-

# non-formal education for rural development

B.C. Rokadiya

by International Council for Educational Development—an independent research organisation concerned with contribution of education to social and economic development.

It hardly needs to be repeated that national development in most developing countries has been lopsided. Education is certainly an important part of this disturbing picture. Despite valiant efforts to expand formal schooling, only a small percentage of boys and girls are getting a full and effective primary schooling. The unschooled and early drop-outs, comprising the great majority, are left largely to fend for themselves. What might be done through non-formal education to help the minimum essential needs of millions of educationally deprived rural children and adolescents and to help accelerate social and economic development in rural areas was the central question entrusted by UNICEF in October, 1971 to the International Council for Educational Development for a broad research study. This is the first general report which sums up some results of the study made thus far, suggesting some practical steps that might be taken to improve conditions.

The study was designed to provide developing countries with information and practical guidance on how to (i) assess the needs within a given country for non-formal education for rural children and youth, particularly out of schoolers, (ii) plan effective and economical programmes to meet these needs—taking into account the relationship between non-formal and formal educational provisions, (iii) develop means to evaluate and strengthen such programmes over time, and (iv) define the ways in which outside assistance can be of help to countries in implementing non-formal educational strategies and programmes.

In terms of its scope the study was concerned with non—

formal education of out-of-school children and youth in rural areas of developing countries—specially the poorest ones. For collecting the pertinent information and evidence several steps were followed. At first, an initial conceptual and analytical framework was devised—which provided basic questions and guided the search for information. A series of case studies were then undertaken to examine some non-formal education programmes in action and numerous 'brain-picking' discussions were also held with knowledgeable experts in developing countries, U.N. agencies, universities, research institutions and other organizations. The study team also examined a great variety of pertinent documents to cull out useful ideas and information. The evidence thus collected was sifted, organised and analysed in order to draw valid generalizations and recommendations.

The case studies seem to constitute the main core of the evidence. With a view to have uniformity in the study each case study was based on a general diagnosis of rural educational needs—viewed in a broad socio-economic context; an inventory and assessment of existing non-formal educational programmes of rural children and youth; fuller analysis and evaluation of one or two selective programmes that appeared to offer significant lessons; and a critical assessment of the lessons that might be useful to other developing countries. Size of the country, level of development, availability of good documentation in advance, geographical distribution and cultural diversity of the whole sample, a country's keenness to be studied, the presence of one or more significant non-formal educational programmes that appear to offer particularly useful lessons were the criteria adopted in selecting countries and programmes for the case study. In all 12 case studies in 11 countries were included: in Africa—Kenya,

**J**UST published under the title 'New Paths to Learning.' This is a report of a study on non-formal education for rural development prepared for UNICEF

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*New Paths to Learning for Rural Children and Youth* by Philip H. Coombs with Roy C. Prosser and Manzoor Ahmed, International Council for Educational Development, New York, October, 1973. Price: \$2.00.

Maliand Upper Volta; in Asia—Indonesia, Sri Lanka, Thailand and South Korea; in the Caribbean and South America—Colombia, Cuba, Jamaica and Brazil. In addition to the case studies several background paper reviewing special topics in the field of non-formal education also seem to have served as information resource for the study.

Topics of the report include fundamental concepts related to non-formal education, the main task of non-formal education in rural societies, and the present programmes of non-formal education. The report concludes with a chapter on 'moving into action', suggesting practical steps that developing countries can take to accelerate progress in this field. It also indicates some ways in which international agencies might assist them. The appendices added to the report provide illustrative inventories of non-formal education programmes in certain developing countries, list of programmes by type and country, summary of programmes by objectives and geographic regions, by size, sponsorship and clientele, and pertinent references.

The idea and the necessity of viewing education as a life-long process has been most recently emphasised by the International Commission on the Development of Education. The observations made in this report underscore the Commission's findings. The authors have prepared an important report which is marked for careful editing done by Barbara Baird Israel and for the fact that it is eminently readable. The report reflects both socio-psychological and educational scholarship in exploring a new area of educational enterprise. It is indeed a pioneer effort to conceptualise, analyse and systematically examine non-formal education, basically with a view to providing practical policies and operational guidance. Though the study has an empirical bias, authors have attempted

theoretically sound and rigorously analytical approach.

The authors, to start with, have taken a comprehensive and unified view of education—a view that sees informal, formal and non-formal education as collaborative elements in the total learning system—and not as antagonistic competitors or isolated factors. In an educational system formal and non-formal education are perceived as complimentary and mutually reinforcing elements. To size up the educational requirements of children and youth in rural areas and to plan provisions for meeting them, the authors have attempted a framework of their 'minimum essential learning needs'. The report proceeds on to suggest that the essential learning needs may have to be stated in operational meaningful terms in the context of a particular society so as to provide a clear basis for measuring achievements. It is made clear that no one mode or institution of education—formal, informal and non-formal, is capable by itself of improving all the minimum essential learning needs.

The findings of this study rest mainly on research directed in a limited number of countries and selected programmes. The observations, therefore, are naturally impressionistic. Even then the description and findings of case studies indicate the proliferation and a variety of educational objectives with which the programmes are being pursued. Under the 'critical issues', the report broadly discusses the need for massive effort for evolving non-formal educational programmes for the neglected groups particularly young children, out-of-schoolers and girls. Specific attention has been drawn to the most neglected learning needs in the developing countries.

Conceptual ideas advanced in the Report have great freshness of phrasing and of illustrations. Numerous important questions

will, however, continue to need the attention of the operational minded researchers in this relatively unresearched field. Without more solid knowledge planners and decision makers are apt to be forced to operate on untested hunches, assumptions and dogmas. Clearly the major research efforts are warranted in this field for providing operational guidance. The conclusion advanced in this study is that a great deal more can be done in terms of non-formal education in the developing countries. How much more could be done depends on the vision and determination of each country's leaders, educators, planners, educational technologists and the people.

At the time of writing this report many of the case studies, it is reported, were only in preliminary form. The ICED propose to make available the findings of the case studies in fuller form in the second report to be followed in the middle of 1974.

The study makes it abundantly clear that progress in non-formal education for rural children and youth will require—even in the most favourable situation, an intelligent, developed and sustained effort by many people and organisations over a long period. To expect overnight miracle is to expect impossible.

Although one would have appreciated inclusion of one or two case studies from India in the report, nevertheless the experience and lessons—positive and negative, drawn from other case studies, will hopefully be found useful. The present report will certainly add to the knowledge and understanding of those who have begun to think in terms of the complex tasks involved in non-formal education, and help in designing programmes and making adequate preparation for implementing them in the context of educational needs perceived in the country.

development, (b) Training of workers, (c) Learning material development and production, (d) General Information Services, (e) Jha Library Services, and (f) Research in non-formal education.

The headquarters of the Association are in touch with the organisations and individuals members who have sought assistance.

## encouraging response of members to in-depth study of the subject of the next conference

All the members were informed by a circular dated November 29, 1973, (reproduced in the November-December number of this Journal) that the theme for the next conference will be Adult Education Programmes in the Service of Rural Poor. In response to that circular 21 agencies have indicated their areas of interest for an in-depth study during this year. The classified response is as follows:—

- (1) Techniques of Literacy Teaching to farmers and rural artisans, both rural men and women—7,
- (2) Non-formal and out-of-school training programmes for the rural youth of the age group roughly between 16 and 30 year—5,
- (3) Training in self-help for rural people and for undertaking cooperative activities, specially to reach as far as possible, the lowest rungs of the social and economic ladder—3,
- (4) Formal and non-formal education programmes for rural women—7,
- (5) Vocational training and education programmes for rural people specially artisans.

The office of the Association is attempting to coordinate between different organisations and to provide counselling services wherever sought.

## follow up of the writers' workshop

The Association organised a writers' workshop in November, 73, (reported in the January 74 number of the Journal). The writers were given two months time to write on the subject of population explosion. Ten writers have submitted their manuscripts to the Association. Three are one act plays, three collection of stories, two novels, one comic book and one long story. The Association plans to call another meeting to discuss the writings.

## visitors to the association

Mr. E.N. Gould, Associate in Continuing Education on Curriculum, New York State Education Department, Albany, New York, visited the office of the Association on February 21, 1974. He had discussions on various aspects of adult education in India with members and staff of the Association. He also visited the functional literacy and craft education centre for women being run by the Delhi Adult Education Association.

Mr. Arthur Vespry, Librarian, International Development Research Centre, Ottawa, Canada, visited the office of the Association on February 27, 1974. The project on documentation on family life education prepared by the office of the Association, was discussed with him.

## new publications

The Association has recently brought out the Hindi editions of the following books:—

1. A Literacy Journey  
by C. Bonanni Rs. 8/-
2. Adult Education for  
Women Rs. 6/-
3. Literacy in Traditional  
Societies by  
Jack Goody Rs. 6/-

## counselling service of iaea

**I**N response to the circular dated December 12, 1973, issued by the Hony. General Secretary of the Association regarding assistance to institutional members (reported in the January, 1974 number of this Journal), 15 agencies have sought the assistance of the Association in various spheres. Assistance required includes the fields of—  
(a) Programme planning and

## from our correspondents

### georgetown, guyana

#### the break-through year

THE Adult Education Association of Guyana has decided to treat 1974 as the "Break-through Year". In Guyana, which is considered to be the first Co-operative Republic ever, adult education plays an important role. Mr. Joe Lambert, a person drawn from the field of management of Airways has become the Chairman of the new Executive Committee.

Guyana's Adult Education Association is actively participating with other Caribbean nations in developing adult education programmes.

They publish an informative and useful Newsletter (person to be contacted for the Newsletter, Samuel A. Small of AEA).

### caracas

#### agreement on adult education

The fourth meeting of Ministers of Education of the countries party to the Andres Bello Agreement, (Bolivia, Chile, Columbia,

Ecuador, Peru and Venezuela), which took place from 16-18 April 1973 in Caracas, adopted the Caracas Agreement on Educational Policy in the Andean Region. Article 4 of this Agreement, which refers to adult education, reads as follows:

"To promote the expansion and improvement of the system of education for adults and workers through courses for training, refresher courses and continued studies, in order to obtain the kind of human resources which are indispensable for the global development of our countries, to open opportunities of higher education to the traditionally underprivileged sectors of populations, and to create the real conditions in which the people will be able to exercise their legitimate right of political leadership".

### zambia

#### revolutionary overhauling

A national Adult Education Seminar took place in Lusaka, Zambia, from 7 to 11 May, 1973 under the sponsorship of the Ministry of Education and Culture. The 36 delegates from the Rural Development Ministry, non-governmental bodies and the Department of Extra-Mural Studies, University of Zambia, studied the situation, needs and possibilities of adult education in Zambia in the light of the decisions and recommendations of the Third (1972) International Conference of Adult Education held at Tokyo. They framed proposals which are described as constituting the basis for a "revolutionary overhauling of Zambia's adult education programme". (Information can be obtained from the Ministry of Education & Culture, P.O. Box RW 93, Ridgeway Lusaka, Zambia).

### indore

#### seminar on planning of literacy

A two-day Seminar on Development and Planning of Literacy Programme for M.P. was organised in the beginning of December, 1973 by Bhartiya Gramin Mahila Sangh at Indore. It was inaugurated by Shri B.R. Chaturvedi, Minister for Panchayat and Social Welfare.

Lectures were organised by some experts including Smt. Krishna Agrawal, Chairwoman of the Sangh, Dr. T.A. Koshy, Shri D.C. Soni and others. The lectures were followed by discussions.

The Seminar adopted five resolutions in which it requested the Government to constitute a State Board of the Literacy and Social Education, to increase the availability of funds for literacy programmes, to support effort for preparation of reading material for neo-literates and to make literacy programme truly functional.

#### writers' workshop

Immediately after the Seminar a ten-day Writers' Workshop was started from 3rd December, in which 19 persons participated. The objective of the Workshop was to do some background work for preparation of text-books and follow-up literature specially for rural women looking to their primary and functional needs.

The workshop prepared the first draft of 8 books which would impart functional education to rural women. The books will be published after further editing.

Informal education if properly organised and skillfully imparted has a great role to play in correcting the distortions of the formal education system.

To be able to play this role it is necessary to conceive of informal education as something different from the existing mode of formal education, both in its organisation as well as in its content. Asher Deleon while showing a good deal of insight into the problem has inadvertently fallen into the usual temptation of using the readymade model while recommending the agencies of informal education. It is naive to assume that the agencies which have been designed to serve the purpose of an undemocratic, inelastic and unpragmatic system of education should simultaneously also be an effective vehicle of democratic, functional and elastic programme of mass education.

## informal education

**E**VEN after twenty-five years of Independence the education system of the country works in isolation from the community. Its decisions are ivory tower decisions and its planning based upon the fads of the few, so called, knowledgeable persons. The system leads to a colossal waste not only by way of drop-outs but also by training people in arts and skills which are far removed from the immediate needs of the community.

There is a lot of clamour about raising the productivity of human capital in the country, but the schools and colleges, which are the training ground for this purpose, have undergone little change in their pre-Independence outlook of colonial aloofness and self-righteousness. They continue to be highly undemocratic in their organisation and autocratic in their decision making. Devoid of any sense of social accountability they are least bothered about the type of education needed by the community at a particular time.

The Universities, because of their restrictive view point, and the existing voluntary agencies, because of their limited vision and lack of expertise, and both together due to their lack of social accountability, are not the fit agencies for informal education. In order to play its expected role informal education needs to have its own organisation which is democratic in its composition as well as in its functioning and is also capable of giving pragmatic, functional education to the people. The system should also have inbuilt mechanism for quick adjustment to the changing needs of the community.

The criterion of democracy is met when the objectives of the programme are set by an apex body which is fully representative of all the functional groups of the community. To be able to accommodate all functional groups in the apex body the area to be covered by it has to be reasonably small. Thus, as against the country-wide canvas of the formal education system, the informal education programmes will have to be planned and practiced at regional level.

The next essential condition of democracy is social accountability. To achieve this the planners and the organizers of the programmes should be made answerable for the outcome of their decisions to the apex body of the representatives.

To make the programme functional and pragmatic it will be essential to drop off of the dead wood of the formal education syllabi. The prototype of the courses in schools and colleges will have to be consciously discarded. The distinction between the main and the subsidiary knowledge should be understood properly, and subsidiary disciplines should be introduced only as the essential tools of analysis to reach a particular goal.

Nor should the method of communication be the same. It will also have to be evolved in relation to the comprehension level of the people for whom a particular course is offered.

To achieve this a team of experts, who are prepared to look beyond the narrow confines of their respective discipline, and view the problem as it faces the people, will be needed. Without a truly inter-disciplinary approach in the formation of the programmes and a great spirit of accommodation among the experts the final draft of what is to be done may never come out of the conference room.

It is also essential that each region has its separate body of permanent experts. The temptation of having ad hoc bodies of loaned departmental personnel should be avoided. The ultimate form of informal education will emerge after a good deal of purposive experimentation and thinking. The task therefore, cannot be left on ad hoc bodies which lack continuity and dedication.

*Deshbandhu  
College, Kalkaji,  
New Delhi*

**G.C. Tewari**



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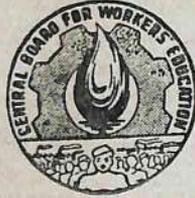
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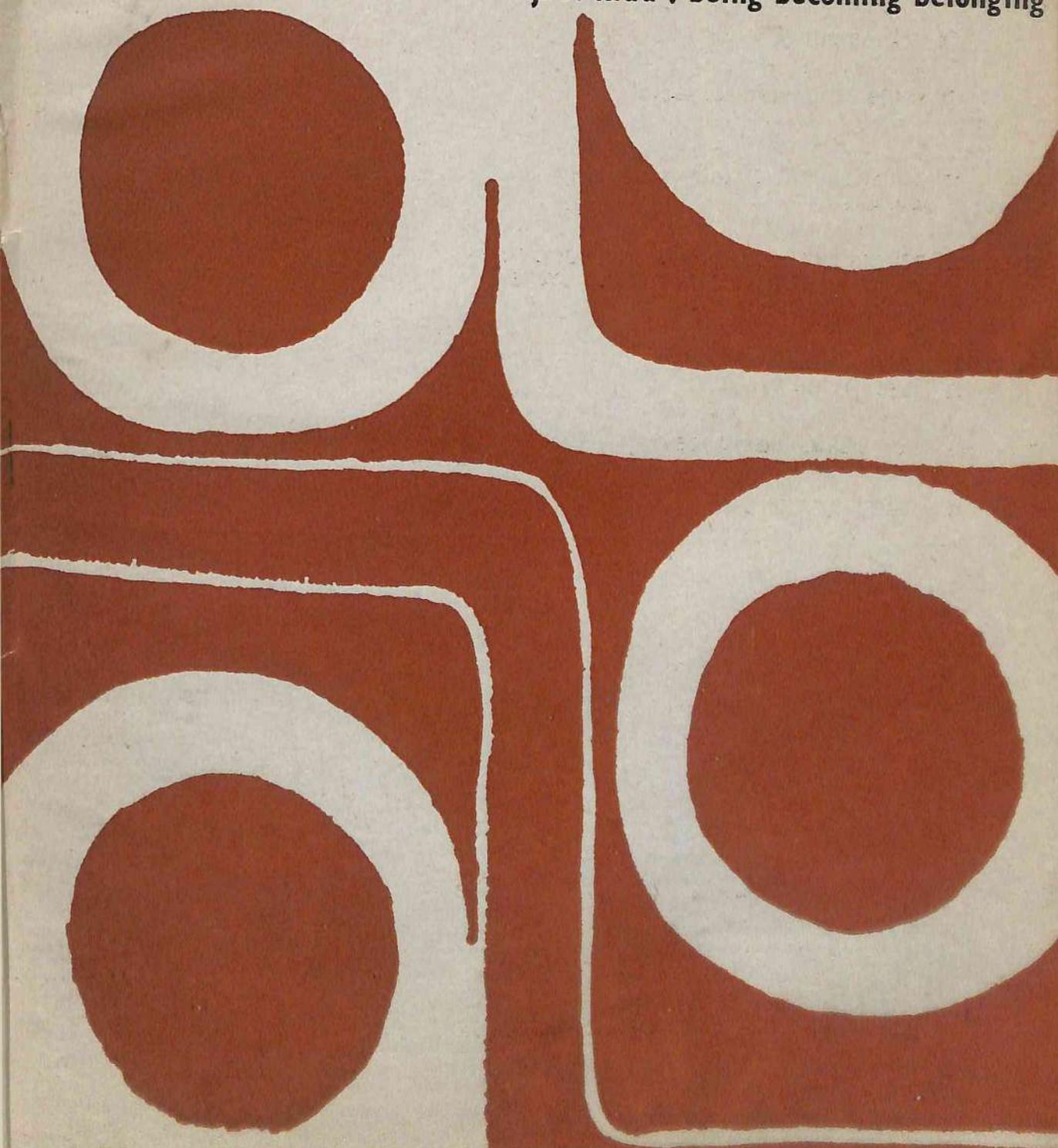
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# indian journal of adult education

j. r. kidd : being becoming belonging



march 74 ● vol. xxxv ● no. 3

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# learning and being

India's ancient literature is full of how knowledge (jnana) and continuous self-learning (swadhyaya) help a person in "learning to be"; and how knowledge (jnana or vidya) is a means to freedom or liberation. Through the page of *manas sutra* these concepts are being communicated to the readers every month.

It is, however, questionable if this can become a way of life or a philosophy of life for a whole people, for the masses who are striving somehow to merely survive in the strong current in which they find themselves. Knowledge which helps them in learning to be or which is the foundation of "being" is almost always confined to the few, to the leisured groups. The vast toiling masses who live in abject poverty, disabled by malnutrition and disease, have neither the resources nor the urge to think about these wonderful ideas. It is becoming more and more obvious every day that before the masses can learn to be, they must first change the existing social and economic structures.

Adult education has, there-

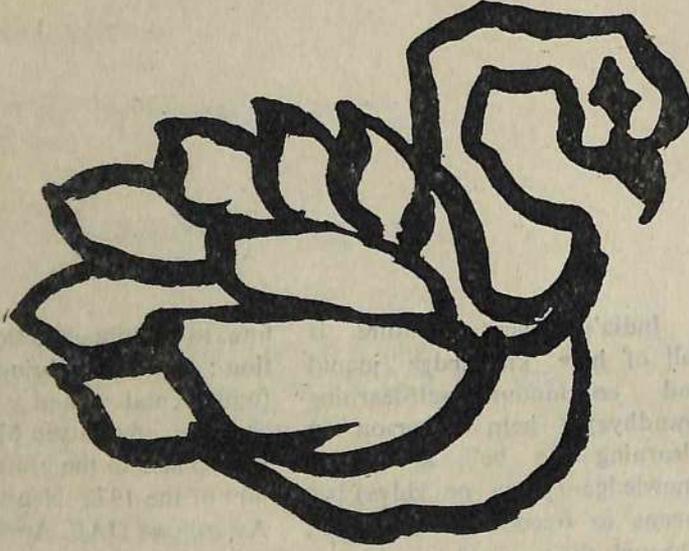
fore, to acquire an action orientation; action for bringing about fundamental and structural changes. As Satyen Maitra said in response to the presentation to him of the 1972 Nehru Literacy Award (see IJAE, April 1974).

The role of adult education is not only to provide learners with relevant knowledge and information but also to help them fight against and overcome whatsoever is crippling and stunting their growth.

It is in this perspectives that an adult educator has to read the learned paper of Roby Kidd, published in this volume and the remarkable Edgar Faure Report Learning to be.

## Postscript by the Publishers

We regret very much that this number has been considerably delayed, owing mainly to a strike in the Printing Press which prints the journal. The Railway Strike will perhaps further delay despatch and this may cause the subsequent numbers also to be delayed. The Publishers and the Editor seek to be excused for this.



कर्मण्यकर्म यः पश्येदकर्मणि च कर्म यः ।  
स बुद्धिमान्मनुष्येषु स युवतः कृत्स्नकर्मकृतः ॥

The Bhagawad Gita

**He who sees inaction in action, and action in inaction, he is wise among men, he is a *yogi* and accomplisher of everything.**

Mind requires to be cultured both in society and in solitude. If the mind can maintain its equilibrium and calmness while being engaged in a roaring battle, it is seeing inaction in action. While one is bodily detached from the turmoils of the world and placed in a far off deep mountain cave, if one's mind goes Godward steadily and earnestly, it is seeing action in inaction.

It will not do for the mind to be lop-sided in development. There are those who are habituated to solitude. If such people be dragged into the tumultuous society, they go mad. There are others immersed in the throngs of the world. A day of solitary confinement is enough to turn them insane. Both of these types of men are partially trained. The perfectly trained alone are at their best both in solitude and in society. They are tuned both to action and inaction.

Swami Vivekananda

# being becoming belonging

J.R. Kidd

AS I sit writing inside a jet aircraft, a daily newspaper is passed to me. I quickly scan the pages and a headline assaults my senses, like a thousand fingers scratching on a giant chalkboard. *Scrawled map hints new gravesties in worst American mass murder.* "An East Texas sheriff said a hand-scrawled map of possible new gravesite and many other items of evidence, including a sheath of plastic bags, and a partially used sack of quicklime, had been found in a cabin used by a homosexual bechelor, accused of killing at least 27 young boys".

One is almost paralyzed when one thinks of the slain, how they were lured to destruction and how they died and one wonders whom most to weep for, or agonize over, the tortured victims, the parents who had lost touch with their own sons, the desperately sick sadistic murderers, the uncaring and ineffectual police and the rest of us who are the readers of these horrors and comprise the society in which it could happen. As one

listens to one's fellow travellers, some uttering terrible curses and threats, some like Pontius Pilate reaching for a basin of water, some titilated by the macabre tale of this chanel house in a park, I heard no word of remorse or any voicing of *mea culpa*. Yet it seems clear that while the principals were profoundly and terribly educated, the schools had done little for them. One wonders about the role of education, the opportunities taken or lost.

## long house

Only a few miles from Syracuse occurred one of the greatest creative acts in the whole history of man. Five Indian nations, (later to be six) five savage warring clans, five tribal peoples who had fought and murdered and scalped and burnt, who had pursued pitiless recurrent vendettas, convened, and reasoned together, prayed together and took risks with each other, and developed a trust and a brotherhood—the Iroquoies brotherhood, never broken or revoked. It was a concord that endured, it was much more than a cease-fire, a temporary halt to conflict, it was a pact to cooperate in agriculture as well as hunting, an agreement to plant crops and organize hunting and living with a full understanding of ecological principles. It was an exchange of values and ideas and technology as much as a political act. The agreement planned near Syracuse by these people of the *longhouse* was a blazed trail to a better, more humane, more cooperative life. It respected man's origins, his needs to belong and express himself. It might have been the example and

Adapted from the lecture delivered by Dr. J.R. Kidd at Syracuse on the occasion of award of Tolley Medal on Oct 8, 1973.

the basis for much wider agreements had not the paler-faced implacable, better-armed savages from Europe not arrived just about that time with their avarice for furs and new lands, their fire arms and firewater, their arrogance and their conniving Machiavellian stratagems which soon had the effect of embroiling all Indian peoples in destructive imperialist struggles. Still, though almost forgotten and never celebrated, these original Syracusans performed a unique service for mankind.

It would seem pretensions if the Department of Continuing Education of the University of Syracuse were to be linked up with those early Indian forebears. Nevertheless, comparison is not so far-fetched. In this University have occurred some of the most important developments in adult education on the continent. Here, to name only four, have appeared the development of a great library on adult education; a scholarly "longhouse"; the pursuit of excellence in learning for adults in university program which the Tolley lectures have served to celebrate, the international conference which resulted in the formation of the International Congress of University Adult Education and the establishment of the Landmark series of publications designed not only to remember a remarkable educationist, Alexander Liveright, but to commemorate innovative and pioneering acts in a pioneering field. In Adult Education, it is not our usual custom to boast or display satisfaction with our own achievements. However, you will not object to my repeating a reminder from a rural philosopher of my country, who used to say that a

man "ought to respect a good thing even if it was his own."

We serve a calling that has been such a distinctive part of our era—the calling of Adult Education, the field that has come of age in comparatively few years, achieving a development that elementary education and secondary education and higher education took generations to achieve. I wish that Adult Education was better than it is, built on sounder intellectual foundations, served by wiser practitioners and devotees, reaching to millions more of the under-educated and learned in need, surer of its goals and methods, always and ever an advocate of *education permanente* and the continuing search for excellence and renewal. Yet, such as it is, and such as we are the growth has been miraculous and we are fortunate to have been alive for such a time and career. My old chief, Dr. E.A. Corbett used to speak of those who were prepared for some other career but had to somehow stumbled into Adult Education—some of them, men like himself educated for the church, who "had set out on the Road to Damascus but had fallen among educators." Most of us now know many educationists who could have under taken other careers but have found in this one the opportunity for pioneering and innovating and caring and commitment and fellowship that is the lot only of the fortunate.

### **b-cubed.**

I have chosen a theme which I do not pretend to fully understand, something towards which

I grope, something that I know will exercise my mind and spirit for all the years ahead. But in the language of mathematics, it is is: B-Cubed. I mean the concept of *learning to be, learning to become, learning to belong*, the celebration, the affirmation, the enlargement of the full consciousness, the search for that part of man that is truly human, a part of the general condition of the human family, and yet is uniquely me, uniquely I. Carl Rogers said recently:

How does it happen that the deeper we go into ourselves as particular and unique, seeking our individual identity the more we find the whole human species.

In choosing this theme, I was not particularly influenced by Gordon Allport, although his book *Becoming* is so splendid. Nor is my guide Abraham Maslow, or his book *Psychology of Being*, though I owe him much. Or simply, the recognition of man's urgencies, as he searches for himself even as he desperately and poignantly seeks to belong with and others. Or the Faure Commission who have used in their Report, the title, *Learning to Be* so much more worthily than I can do. I am cheered, of course, when the most distinguished and representative international committee on education ever assembled, chooses to report to us under such a title. My reason for the choice arises from my own poor attempts to understand myself, as the predicament of man in the 1970's. For me, this search was climaxed by a six months "crash-course" which I was obliged to plan for myself when faced with the need to revise the book

*How Adults Learn* and thus to learn about and understand what have been the main achievements in learning theory and practice in the past fifteen years. In that task of revision as I was obliged to read again what I had written fifteen years before, I found little to recant, much to restate in words that I hope are more lucid, much more to add. The one additional chapter I felt obliged to write bears the title—*Being and Becoming*. After at least a superficial review of the implications for learning from psychology, psychiatry, sociology, anthropology, history, chemistry, biology, brain research, communications, I concluded that it is man facing himself, but man constricted and broken and wounded, man enlarging himself, man opening up himself, and man seeking to belong to others, that should occupy my central gaze.

Most of us, in W.H. Auden's phrase, have been living in the suburb of dissent.

And where shall we find shelter

For joy or mere content ?  
When little was left standing  
But the suburb of dissent ?

And that's not a very comfortable residence. In such a community, and with such neighbours, some of us lost our nerve or our sense of humour and much of our purpose—or at least our conviction that our purposes can be achieved.

*Being, becoming, and belonging*, constitute a different neighbourhood than dissent. Here are offered homes for growing, changing, perfecting, enlarging, renewing. The emotional climate

is also different ; it is bracing, but not charged and electric ; it provides oxygen in which we can live with hope and joy, not the acrid fumes of anger, confrontation, criticism and despair.

Sometimes in the neighbourhood of *B-Cubed* arrive the romantics, those who expect too much, too soon, too easily. Romantics sometimes become bad neighbours. If they suffer much difficulty, too often they turn into cynics. But there is plenty of room for the kinds of learning that depend on trust, belief, confidence, self-assurance. It is a fascinating thought that at a time when there is so much distrust, dejection, scapegoating, there are also emerging activities and programs that depend on faith and belief. Despite the employment of these modes by quacks and faddists, these modes are not magic or anti-intellectual as some would have it, they work because human beings are health-seeking and respond to positive stimuli. Carl Rogers writes :

I have yet to find an individual who, when he examines his situation deeply, and feels that he perceives it clearly, deliberately chooses dependence, deliberately chooses to leave the integrated direction of himself to be undertaken by another. When all the elements are clearly perceived, the balance seems invariably in the direction of the painful but ultimately rewarding path of self-actualization growth.

### **being, becoming, belonging**

I am aware, of course, that

the title I have chosen may cause you some unease—juxtaposing *Being, Becoming, Belonging* and suggesting that they must be compounded. Notice that I include the three words for want of a noun or a title that would make my thought clear. Others have experienced a similar dilemma, in their attempt to relate ideas and values which must be seen together, not dissected or wrenched apart like a pound flesh with no blood. Maslow striving for an appropriate term in the preface to his book, *Towards Psychology of Being*.

A much better term is "self actualization" as I have used it. It stresses "full-humanness", the development of the biologically based nature of man, and therefore is (empirically) normative for the whole species rather than for particular times and places, i.e. it is less culturally relative.

However, besides being clumsy from a literary point of view, this term has proven to have the unforeseen shortcomings of appearing a) to imply selfishness rather than altruism, b) to slur the aspect of duty and of dedication to life tasks, c) to neglect the ties to other people and to society, and the dependence of individual fulfilment upon a "good society". The word "self" seems to put people off, and my redefinitions and empirical description are often helpless before the powerful linguistic habit of identifying "self with selfish" and with pure autonomy,

There are problems with Maslow's terms, as he implies,

and they remain if one focusses only on *being*—which is a time-bounded existential concept which ignores the necessity of the person becoming, changing, altering, growing. *Being* is further limited to an individual existence, isolated from others, if one fails to place in the equation *belonging*. As Gordon Allport, and many others point out, there are at least two contrary forces at work.

One makes for a closed tribal being. It takes its start in the dependence of the child upon those who care for him. His gratifications and his security come from the outside; so too do all the first lessons he learns: the times of day when he may have meals, the activities for which he is punished and those that bring reward. He is coerced and cajoled into conformity but not, we note, with complete success . . . .

If the demand for autonomy were not a major force we could not explain the prominence of negativistic behaviour of the two-year-old are primitive indications of a being bent on asserting itself. All his life long this being will be attempting to reconcile these two modes of becoming, the tribal and the personal: the one that makes him into a mirror, the other that lights the lamp of individuality within.

Accordingly, for want of a better title, I have combined these three concepts, *being*, *becoming*, *belonging*, which should be seen in a dynamic relationship which I suggest by the formula

of a *B Cubed* or *B times B times B*.

Moreover, I assert that this formula is at the heart of, and is the central goal of education, is, and should be—must be. If any program of education for children, youth or adults is deficient in this respect—as I believe is lamentably true of many programs of adult education—the neglect, the imbalance should be corrected.

Then, and only then, can the principles concerned with fullness of human life be talked about. This is our job, our calling, perhaps our destiny. Because we have been given much we owe much to others—to our belongingness.

If in adult education we are concerned about our fellows, as well as our children, we will immediately begin to study and teach in two areas—how zest and enthusiasm for living can be practised, restored, and maintained and how being-becoming-belonging can be fostered in all its dimensions. These are not impractical or esoteric tasks; to be left until all the remedial and vocational and leisure skills training is completed. To put it starkly, these educational goals spell life or death. And if adult educationists are too busy, or too unsure of themselves, or too blind to take the lead, who will?

### **reasons for being-becoming-belonging**

We have noted earlier that the notions of being-becoming-belonging speak eloquently and

forcefully to the human condition. It is still true that millions of men and women have a fear daily of bodily hunger and starvation and scores of millions more have spiritual hunger, they seek an answer to meaninglessness. We do not decry education and training for economic functioning—it is so obvious that we feel no necessity to speak about it. But the other hungers may go unregarded. We believe that the kinds of education that may have answers to ennui and boredom and alienation are of the highest order. We are convinced that people deserve support as they seek appropriate ways of expanding and enlarging their consciousness; they ought not to be left to the exploiters who will sell them many kinds of drugs or perhaps equally addicting and destructive emotional nostrums. We note appearance of wealthy new institutions and the large and expensive advertisements for various forms of mind exploration and development and for extension of the senses, the ostentatious wealth available to groups practicing scientology and many extraordinary forms of transcendental experience. Some of these manifestations seem novel and may eventually offer positive benefits, others are hardy perennials that have been tried and discredited many, many times before. We have talked to counsellors and psychiatrists and have some impression of the mounting costs in wounded lives that arise from the presence of creeds and ideologies that claim so much and offer so little. Would all this growth have happened or be happening if adult education agencies were themselves fully and deeply in the field, urging

the claims or reason as well as emotion, asking that there be a test of performance as well as shouted testimonials? To what extent have some of these magical and ominous temples and schools found expression because of our negligence or failure? Carlyle said "Experience is the best of schoolmasters, and the school fees are heavy" and we leave it to others to pay.

What *do* I mean by mixing up being and becoming and belonging? To be honest, I don't know fully. Still as I think and talk about these ideas, I am beginning to get a little closure. It's like a little boy who was painting away with great slashing colour-filled strokes and the art teacher asked him what he was painting, and his reply was "God!". "Oh", said the teacher, "that's wonderful. I have always wanted to know what God looks like. By the way, how does he look?" In the story there are at least two answers to this question and in one, the boy answered, "Well-to start with—she's black!" In the other, the boy simply replied: "I don't know either, but I will when I'm finished". Or I am like the boy in another story. A seven-year-old who was asked by the Rabbi, "Who made you?" which was supposed to prompt the answer, "God made me!", but instead, the boy replied; "I ain't finished yet."

Does being-becoming-belonging have any substance that goes beyond rhetoric? Have I just coined a new and clumsy formula to get attention, or is there a content, a body of ideas and information and skills, as well as vague objectives?

## ten characteristics

Let me begin by identifying ten characteristics or factors, or dimensions, or continua, of an education of and for *being-becoming-belonging*.

*One*: both the affective and the cognitive domains are comprehended. A high place is awarded to feeling but not pride of place. Rationality and reason are not dethroned or discarded. Being-Becoming-Belonging does not just happen as a simple inevitable process, but as the result of conscious choices.

*Two*: there is within this notion a complete time dimension—past, present, and future. There is a history for perspective; there is a future to which one journeys purposefully. Being-Becoming-Belonging has something to learn from Gestalt Psychology, but it is not all *How and Now*. We remember Fritz Perls, who wrote:

*Now* cover all that exists. The past is no more, the future is not yet... *How* covers anything that is structure behaviour, all that is actually going on... Any time you use the words *Now* and *How*, you grow. Each time you use the question *Why*, you diminish in stature. You bother yourself with false, unnecessary information. You only feed the computer, the intellect, and the intellect is the prostitute of intelligence.

Being - Becoming - Belonging rejects *Nowism* as being far too simple, too restricting, too confining; the past and future

cannot and should not be exercised.

*Three*: Being - Becoming-Belonging is much more than preparation for living; it is living, but also it leads to life growing, enlarging, evolving, and a life that encompasses others.

*Four*: Education for Being-Belonging-Becoming is about jobs; it is not anti-vocational, or anti-economic. But it is much more than career education. It is about economic and social and aesthetic and political and spiritual goals. It is about love and fear and hate and honour and loyalty, as well as buying and selling, or building and making.

*Five*: Being - Belonging - Becoming happens as the result of accretion of information, knowledge, and skills but it also occurs as self-discovery, self-expression, fulfillment. Its progressions are more than arithmetic and geometric, there is a third dimension, and they are internal as well as external.

*Six*: Being-Belonging-Becoming is about life and all of living and it is about death and the acceptance and achievement of dying.

*Seven*: Being-Belonging - Becoming has as its chief actor the biological organism man, who is linked, to all other living things. But it is also about man as a member of the human family, distinct and unique and diverging from all other animals.

*Eight*: Being-Becoming-Belonging is about this world, and the members of the the human family are living in "one world

at a time". But it does not deny the possibility of other forms of consciousness, nor does it deny the claims of religious groups that there is a consciousness that transcends what the senses discern.

*Nine* : Being-Becoming-Belonging affirms and celebrates life, but it is not duped by cant, for example, it does not assume the "inevitability of progress," or forms of romanticism such as the claim that whenever a malign social institutions is destroyed good will necessarily and inevitably flower. Being-Becoming-Belonging is not pessimistic or nihilistic; neither is it naive.

*Ten* : Being-Becoming-Belonging is about *homo sapiens* and *homo ludens*, but particularly *homo matheins*, or man learning. It is about man sensing and learning more than it is about man cultivated or educated or learned. It is about mathematics, the science of men and women learning, rather than about pedagogy. It is about freedom and honour and joy and love and sharing more than about possessions or security. Being-Becoming-Belonging offers no final answers to man's predicaments, but it does speak to them, it engages in dialogue as well as introspection, in action as well as thought. It may be claimed that there is nothing very new in this formulation. There is no magic in being-becoming-belonging. That it is simply another kind of laundry list, or inventory of desirable goals or attributes.

Of course, there is little that is novel, at least in the individual items of the above decalogue. However, the product, the totali-

ty, takes on a profile and a depth that is not too familiar. We do not base our case on novelty or on trends or fads, but it has to do with human need and human potentialities. And it is timely and appropriate. Whether or not education for Being-Becoming-Belonging might have been considered indispensable to education in 1973 B.C. or 1073 A.C., it is essential and crucial for the 1970's and beyond.

### an example

Sometimes a notion can be better understood if an exemplar, a hero, someone who expresses and is identified with the goals can be identified.

If we were choosing a hero to represent and exemplify and illuminate man's predicament and opportunity in the 1970's whom might we choose? Prometheus? Or the Thunder Bird of the Haida Indians, both of which beings brought fire and light to men. Or some intellectual conservative like Mortimer Adler, who wants us to conserve all the vaunted values of the past? Or Fritz Perls, or others who speak for the *Now* generation. These views were expressed pithily by Robert Edwards, former editor of the famed *Calgary Eye Opener*, who wrote. "If it's all the same with history, it need not repeat itself any more". Or Herbert Kahn and the futurists who disdain the present and past and occupy a day dream in the future. Or Alvin Toffler whose thesis is that we may be all destroyed or may destroy ourselves because of the deadly shock of change.

I choose none of these. Instead, I would nominate a man who has survived implacable change, who confronts change courageously, who is a true and living parable of a man, who is moving forward, but a man who can stand fast. I mean that philosopher, and actor, and Indian Chief and celebrant of life—Chief Dan George. He speaks not just for the Indian people, but for all of us.

Was it only yesterday that men sailed around the moon ... And is it tomorrow they will stand up on its barren surface? You and I marvel that man should travel so far and so fast ... Yet, if they have travelled far, then I have travelled farther ... and if they have travelled fast, then I faster ... for I was born a thousand years ago ... born in a culture of bows and arrows. But within the span of half a lifetime, I was flung across the ages to the culture of the atom bomb ... and from bows and arrows to atom bombs, is a distance far beyond a flight to the moon. I was born in an age that loved the things of nature and gave them beautiful names like tes-wall-u-wit instead of dried up names like Stanley Park.

I was born when people loved all nature and spoke to it as though it was a soul.

And then the people came ... more and more people came ... like a crushing rushing wave they came ... hurling the years aside! ... and suddenly I found myself a young

man in the midst of the twentieth century.

I found myself and my people adrift in this new age ... but not a part of it.

### the central core

If being-becoming-belonging has all of the attributes that I have described, and it has then one would expect to find education for being-becoming-belonging, at the very centre of the temple or the laboratory or the bazaar of education. Not so, almost everything else is celebrated but our concern, and while it is not totally disregarded, it is very much a peripheral or minority interest.

This is an anomaly, as serious as it is curious. Yet it seems to be so. If you look at data deriving from the study of Johnstone and Rivera, or if you check course calendars, you note the absences. In the research of Allen Tough and others who have interviewed thousands of people planning and carrying on their own education, factors in the realm of being-becoming-belonging rank much higher. But it is found infrequently in the programs offered by most institutions.

What we are concerned about are matters that have no particular vocational outcome, even though they affect all of life. They are inter-disciplinary and do not fit well into traditional categories. It is not easy to plan the curriculum for being-becoming-belonging but the difficulties are not insuperable.

It is not as if there is no experience. In fact, education for being-becoming-belonging has a very ancient and venerable history. Many of the greatest names in adult education were concerned and active respecting such education. Pick any century you choose and name off the persons one associates with adult education. Let me list a few examples ;

*Confucius* : Of course he was concerned with professional development of the administrator, but basic to it all was the character and spirit of the man, his involvement and his social relationships.

*Socrates* : "The unexamined life is not worth living." Socrates said that life that was not evolving and unfolding may have been normal for animals, but not for man, who is a social and a rational being or he is nothing.

*Gruntvig and Mansbridge* : Adult education was to perfect men and women in all their faculties, to fit them for another consciousness and a future life only after they had evolved fully in deep relationship with each other.

One could name many others, in all times and places, including contemporary adult educationists such as Jack London and Cyril Houle, Robert Blakely and Paul Miller.

Actually, learning for being-becoming-belonging is what *liberal education* is all about, that is, if you donot attempt, as some did disastrously, to separate liberal studies from other forms of education and training such as vocational education, technical education, political education or

social education— all the possible educational sub-fields that respond to man's need. Liberal education has been defined in many ways : for example, by Thomas Huxley, who speaks of a person :

His body is the ready servant of his will and does with ease and pleasure all the work that, as a mechanism, it is capable of; whose intellect is a clear, cold logic engine with all of its parts of equal strength, and in smooth working order, ready, like a steam engine, to be turned to any kind of work, and spin the gossamers as well as forge the anchors of the mind; whose mind is stored with knowledge of the great fundamental truths of nature and of the laws of her operations; one who, no stunted ascetic, is full of life and fire, but whose passions are trained to come to heel by a vigorous will, the servant of a tender conscience; who has learned to love all beauty, whether of nature or of art, to hate all vileness and to respect others as himself.

But it's essence is being-becoming-belonging.

### it comprehends major concepts

Being-becoming-belonging comprehends three of the major concepts of adult education that have been developing in the past two decades.

*Education permanente or lifelong learning*. While there are few consistant examples, the notion of learning that is coterminous

with living, that starts with birth if not before and is terminated only when the heart and mind cease to function, this notion is fundamental. Lifelong learning has three dimensions. There is a *perpendicular* dimension of learning continuing throughout the entire life-span consonant with all of the divisions of education from the nursery school to post Ph. D. There is a *horizontal* dimension of learning penetrating into every discipline, into every form of intellectual and spiritual activity known to man, and bursting through the artificial barriers erected between fields of study. There is a *depth* dimension, or learning responding to simple needs on, up, and into the most agonizing, or most sublime search for the truth that "sets us free," as the Upanishadic sages visualised.

Since learning is lifelong there must be many points of entry, many renewed episodes, an opening and enlarging spiral of learning behaviour, perhaps with rests and pauses but no terminal points. It is a concept that "has found its time." The International Commission on the Development of Education, known as the Faure Commission and sponsored by UNESCO, is a landmark in educational history, representing a world point-of-view about education perhaps for the first time. Its very first recommendation states :

We propose lifelong education as the master concept for educational policies in the years to come for both developed and developing countries.

*The Learning System* : By the

learning system we mean a great deal more than schooling, although the elementary school and the secondary school are included. We mean any experience that affects learning in the home, or museum, or sports, or travel, or work, or the arts or through any of the media, or in social action and participation. We believe these formal and informal activities can and must be seen as part of a total commitment and investment of the community in learning. Without a concept and an understanding of the whole, it is difficult or impossible to plan for or appraise the parts, make choices about resource allocation or mobilize the full community for learning.

*The Self-directed learner* : A fascinating thing about most human beings, potentially all human beings, is that they have the capacity increasingly to take charge of their own learning, that most of them, no matter in what economic or social class, carry out many projects of "self-directed learning" that the capacity for good performance in self-directed learning can itself be learned, starting in childhood and youth.

It is also true that most of the important additions to learning theory and practice have stressed being-becoming-belonging. As we have noted earlier, this includes the work of most of the humanist psychologists — presently the most vital force in psychological theory applied to education. Most of the new therapists and therapies with their life-renewing techniques are also agents of being-becoming-belonging. One is aware that suspicion is aroused because any field that attracts cranks and

quacks and exploiters and such people have been attracted or are hangers-on or camp followers of the humanist psychologists and therapists. But one is apt to forget that where a man's soul or his life are deeply affected — as in politics and religion and art — there congregate the human jackals and vultures, as well as the saints. A field that attracts no Judas, no Fagan, no Benedict Arnold, no Torquemada, is a field rarely of much consequence to human life.

## **b values—being**

We can understand being-becoming-belonging most readily by examining the proposals of several humanist psychologists.

I begin with Abraham Maslow and his notion of being which he sometimes calls the 'B values'.

1. We have, each of us, an essential biologically based inner nature, which is to some degree natural," intrinsic, given, and in a certain limited sense, unchangeable, or, at least, unchanging.
2. Each person's inner nature is in part unique to himself and in part species-wide.
3. It is possible to study this inner nature scientifically and to discover what it is not invent-discover.
4. This inner nature, as much as we know of it so far, seems not to be intrinsically or primarily or necessarily evil. The basic needs (for life, for safety and security, for belongingness and affection, for

respect and self-respect, and for self-actualization), the basic human emotions and the basic human capacities are on their face either neutral, premoral or positively "good". Destructiveness, sadism, cruelty, malice, etc. seem so far to be not intrinsic but rather they seem to be violent reactions against frustration of our intrinsic needs, emotions and capacities. Anger is in itself not evil, nor is fear laziness, or even ignorance. Of course, these, can and do lead to evil behaviour, but they need not. This result is not intrinsically necessary. Human nature is not nearly as bad as it has been thought to be. In fact it can be said that the possibilities of human nature have customarily been sold short.

5. Since this inner nature is good or neutral, rather than bad, it is best to bring it out and to encourage it rather than to suppress it. If it is permitted to guide our life, we grow healthy, fruitful, and happy.

6. If this essential core of the person is denied or suppressed, he gets sick, sometime in subtle ways, sometimes immediately, sometimes later.

7. This inner nature is not strong and overpowering and unmistakable like the instincts of animals. It is weak and delicate and subtle and easily overcome by habit, cultural pressure, and wrong attitude toward it.

8. Even though weak, it rarely disappears in the normal person perhaps not even in

the sick person. Even though denied, it persists underground for ever pressing for actualization.

9. Somehow, these conclusions must all be articulated with the necessity of discipline, deprivation, frustration, pain and tragedy. To the extent that these experiences reveal and foster and fulfil our inner nature, to that extent they are desirable experiences. It is increasingly clear that these experiences have something to do with a sense of achievement and ego strength and therefore with the sense of healthy self-esteem and self-confidence. The person who has not conquered, withstood, and overcome continues to feel doubtful that he could.

Maslow believes that the values of a healthful being or B values can be learned, can be taught, can be experienced. These are:

wholeness  
perfection  
completion  
justice  
aliveness  
richness  
simplicity  
beauty  
goodness  
uniqueness  
effortlessness  
playfulness  
truth; honesty; reality  
self-sufficiency.

Perhaps we need to remind ourselves that Maslow and Fritz Perls and Allport and the other humanist psychologists did not invent these concepts. Many of the ideas of contemplation and

self-awareness and self-understanding have come not from psychologists, but from philosophers and mystics and poets. Maslow did not invent *peak experience* either, he only re-discovered them, made them known to psychologists, brought psychologists back to a pathway they should never have abandoned. It has often been the psychologists who were most divergent, each marching to the beat of his own clamant drum. Read, if you doubt, the statements from a long procession of Christian mystics. Or a remarkable 20th Century sage, a man for whom a new international city, Auroville, has been named, a prophet whom we little know but, in the next century, may hold a position of the highest eminence, Shri Aurobindo.

These persistent ideals of the race are at once the contradiction of its normal experience and the affirmation of higher and deeper experience which are abnormal to humanity and only to be attained in their organized entirety, by a revolutionary individual effort or an evolutionary general progression: To know possess and be the divine being in an animal and egoistic consciousness, to convert our twilit or obscure physical mentality into the plenary supramental illumination, to build peace and a self-existent bliss where there is only a stress of transitory satisfactions besieged by physical pain and emotional suffering, to establish an infinite freedom in a world which present itself as a group of mechanical necessities, to discover and realize the

immortal life in a body subjected to death and constant mutation.

The eternal paradox and eternal truth of a divine life in an animal body, an immortal aspiration or reality inhabiting a mortal tenement, a single and universal consciousness representing itself in limited minds and divided egos, a transcendent, indefinable, timeless and spaceless Being who alone renders time and space and cosmos possible, and in all these, the higher truth realisable by the lower term, justify themselves to the deliberate reason as well as to the persistent instinct or intuition of mankind. Or an extract from Islam; *The Shepherd's Prayer* :

Moses saw a shepherd on the way, crying, "O Lord Who chooseth as Thou wilt, Where art Thou, that I may serve Thee and sew Thy shoon and comb Thy hair?

That I may wash Thy clothes and kill Thy lice and bring milk to Thee, O worshipful One;

That I may kiss Thy little hand and rub Thy little feet and seep Thy little room at bed-time."<sup>1</sup>

Oh hearing these foolish words, Moses said, "Man to whom are you speaking?

What babble! What blasphemy and raving! Stuff some cotton into your mouth: Truly the friendship of a fool is enmity: the High God is not in want of suchlike service."

The shepherd rent his garment, heaved a sigh, and took his way to the wilderness.

Then came to Moses a Revelation: "Thou hast parted by servant from Me.

Wert thou sent as a prophet to unite, or wert thou sent to sever?

I have bestowed on every one a particular mode of worship I have given, everyone a peculiar form of expression.

The idiom of Hindustan is excellent for Hindus: the idiom of Sind is excellent for the people of Sind.

I look not at tongue and speech, I look at the spirit and the inward feeling.

I look into the heart to see whether it be lowly, though the words uttered be not lowly.

Enough of phrases and conceits and metaphors!

Light up a fire of love in thy soul, burn all thought and expression away!

O Moses, they that know the conventions are of one sort, they whose souls burn are of another.

The religion of love is apart from all religions."

But, let us return for a moment to the psychologists and therapists. For all of his confidence, Maslow was concerned with the charges that are often levelled against Being psychology the results that may be implicit in focussing on being on *B values* on what he terms *B cognition* or contemplative understanding.

The values may lead to serenity and productivity, but there are also dangers associated with self-actualization :

— making a person not more, but less responsible particularly in helping other people;

— inhibition of action and loss of responsibilities leading to fatalism, "what could be, will be."

— inactive contemplation may lead to blurring everyday values, to too great "tolerance" of other's suffering.

Maslow himself was not like the priest or Levite "who passed by on the other side" and he warns against attempting to find "peace of mind"<sup>2</sup> by ignoring pain and anger and terror around us. In our view, however, he did not give sufficient attention to other factors that we would include under *Becoming* and *Belonging*.

## becoming

To Allport *becoming* is not time-bound. Nor does it lead to self-indulgence, to one's own joy achieved at the expense of, or in spite of, others.

The individuality of man extends infinitely beyond the puny individuality of plants and animals, who are primarily or exclusively creatures of tropism or instinct. Immense horizons for individuality open when billions of cortical cells are added to the meager neural equipment of lower species. Man talks, laughs, feels bored, develops,

a culture, prays, has a fore-knowledge of death, studies theology, and strives for the improvement of his own personality.

The content for the psychology of *becoming* is discovered by self-exploration.

It is knowledge of our own uniqueness that supplies the first, and probably the best, hints for acquiring orderly knowledge of others. True, we should guard against the fallacy of projection : of assuming that other people have states of mind, interests, and values precisely like our own. Yet it is by reflecting upon the factors that seem vital in our own experience of becoming that we identify the issues that are important. When we ask ourselves about our own course of growth such problems as the following come to mind : the nature of our inborn dispositions, the impress of culture and environment upon us, our emerging self-consciousness, our conscience, our gradually evolving style of expression, our experiences of choice and freedom, our handling of conflicts and anxieties, and finally the formation of our maturer values, interests, and aims.

The possession of long-range goals, regarded as central to one's personal existence, distinguishes the human being from the animal, the adult from the child, and in many cases, the healthy personality from the sick.

Striving, it becomes apparent, always has a future reference. As

a matter of fact, a great many states of mind are adequately described only in terms of their futurity. Along with striving, we may mention interest, tendency, disposition, expectation, planning, problem solving, and intention. A reference to the future requires a psychology that transcends the prevalent tendency to explain mental states exclusively in terms of past occurrences. Most people are busy leading their lives into the future. Alas, many psychologists are content with tracing these lives into the past. Or, one might add, chaining them, as the Gestalt psychologists are prone to do, to the rock of the present, the Now. Becoming is a corrective for some of the limitations in Being psychology and Gestalt psychology.

But the greatest corrective is concern, caring, and sharing with others—*Belonging*.

### **belonging**

I choose no single personality to represent the values of *belonging*. I might have mentioned many sociologists, or Gandhi, or some politicians such as Julius Nyerere, President of Tanzania.

Any of these persons would hold that no man can develop at all except in social interaction, that he can have no self-consciousness without a relation to others, that he can achieve no humility, no consciousness of humanity, and perhaps no deep morality except in respect to belonging, to community, to participation in the destiny and agony of the human family. We intend no lengthy argument about

the necessity of the concept being, we simply point out the dangling lacunae if one is absorbed only in being or becoming.

### **life and death**

Being-becoming-belonging are about life, and the celebration of life and are about death and not just the acceptance but the *achievement* of death.

During World War II, the words of A.E. Houseman were often inscribed over some new burial place, made necessary by wars dreadful toll.

Here dead we lie because we did not choose To live and shame the land from which we've sprung. Life, to be sure, is nothing much to lose But young men think it is, as we were young.

The great tragedy is not death itself, but death without meaning. The greater tragedy may be life without meaning. Being-becoming belonging are about the meaning of life and the meaning of death.

Almost everything we have said so far has been about finding meaning in living. Can we find meaning in death ?

About much of this we know far too little. Theologians, philosophers, novelists, and counsellors talk much about the meaning of dying but there have been few empirical studies that would add substance to their reflections. Such studies as there are usually are based on limited samples employing inadequate method and interpretation. Here, as else-

where, as Clause Bernard said : "It's what we think we know that prevents us from learning".

However, in this last decade has arisen a substantially enlarged consciousness about death and dying, as George Guthrie reports :

In the twentieth century death seems to have usurped the role that sex held during the Victorian era as a fundamental, powerful, universal experience about which little is said. In our culture death, just as the Victorian sex, seem to be deliberately and consistently shunted to the periphery of our conscious awareness. Except for those whose professions throw them into intimate contact with it, death has become a phenomenon encountered only accidentally. Insofar as possible, death is confined to the hospital and to institutions for the aged and infirm.

Yet some cracks are apparent in this solid wall of disregard. Beyond the perennial interest in medicine and health there have appeared recently a popular concern with the economics of "the high cost of dying" and a criticism of the appropriateness of "the American way of death." Even more important, psychotherapists such as Frankl and Binswanger and philosophers such as Heidegger and Sartre have pointed to the apprehension of death as a prime source of existential anxiety. Indeed though death has symbolically, as well as literally, gone underground in the popular cultures of our day, at the same time there has

developed a body of insights about death which is perhaps unequalled since the Middle Ages. It is my own belief that any approach to the fact of death would prepare us to cope with it and prepare us to help others to cope with it must avail itself of these insights in order to challenge and counter the prevailing common sense opinions about death.

One can speculate about this concern.

For example, some see it as a morbid reaction to abounding violence, or the atomic bomb. Guthrie refers to four paradoxes that surround the concern about death :

*The first paradox of death* is that though it is an inevitable and universal event about which little can be done ; yet at the same time it is an event which we cannot take lightly, cannot denote to the status of a common, everyday happening.

On the one hand death is *widespread* ; it is certain for each of us ; it is experience which *all* men undergo.

On the other hand, as Guthrie points out "there is something about *my* death that resists this kind of treatment. It asserts itself as an *extra-ordinary* event ! Certainly it is the most important situation toward which I must take some kind of conscious or unconscious stance—a stance which undoubtedly affects the whole of my orientation toward the future." Psychologically no man can remain indifferent to it.

*The second paradox surrounding death* is that while intellectually we know we are going to die, experientially we have difficulty in believing it.

*The third paradox of death* is probably the most important. Death is both a biological and a spiritual phenomenon.

The sense in which death is biological is both obvious and indisputable : but humanly speaking we must also always confront the question of what death means to us. The meaning of death has to do with the spirit of man : It primarily involves consciousness and awareness. What I fear about death in one sense has the ultimate loss of consciousness, the end of all meaningful experience, the cessation of my creative engagement in life, or the dissolution of my personality. If it were possible for meaningful involvement to continue, what happens physically would be a matter of relative indifference.

*The last paradox of death* is that though it occurs as a terminus of life, it is not "simply located" at the end—its reality permeates the whole of our existence.

Our reactions are varied : resignation, acceptance welcoming, rebellion—depending on age, experience, and life-style. For some the thought of death is only tragic, something to be fought implacably. Note Edna St. Vincent Millay :

Down, down/down into the  
darkness of the grave Gently  
they go, the beautiful, the  
tender, the kinder, the kind;

Quietly they do, the intelligent, the wealthy, the brave I know. But I do not approve. And I am not resigned.

However, most of those who counsel, and teach about death are certain that such education is healthy. Pradoxically such study, such acceptance, gives added meaning to life. Some even hope that it might have some influence when a human being may be considered violence against himself or against another. An experienced counsellor, Peter Koestenbaum, believes that there are four clearly delineated stages in response to death.

First, we repress the thought of our own death by projecting it into external realities (such as onto the stage in plays, the newspapers, etc. Also, we flirt with death—in war or daring acts—to prove that death cannot assail us). Second, when we recognize the reality of the death of myself, we experience anxiety. In fact, death, as symbol of my finitude, may well be the source of all authentic, i.e. ontological, anxiety. Third, after the anxiety of death has been faced, the anticipation of death leads to courage, integrity, and individuality. Finally, by opposing, contradicting, and fighting death, man feels his existence and achieves some of his greatest glories—in art, religion, and self-assertion.

Kostenbaum goes on to state that a positive “education” about death can have many valuable outcomes. For example :

1. Man cannot escape death—real or symbolic. He must construct his life—daily

actions as well as major, over-all plans—with the full and clear realization of that fact. He must accept, once and for all and without any reservation, misgiving, false hope, repression, or bitterness, the fact that he has been condemned to death. Then he can start living.

In accepting death, he will neutralize an otherwise completely demoralizing and paralyzing fear. This is one key to the successful management of human existence.

2. Once he has recognized and admitted the inevitability of his death, the individual is on the way to becoming fearless, and decisive. Whenever he feels indecision and lack of courage, he must remind himself that life will end for him. The symbolic threat of death, which often is the cause of his indecision, will then disappear, since its basic fraudulence will have been made manifest. He will be able once more to steer his life with courage and decisiveness.

3. To accept death means to take charge of one's life. The man who sees the genuine function of death in life is no fatalist. He does not feel strictured. On the contrary, he is the freest of all men. Nothing holds him back but his own free decisions. He has nothing to fear, nothing to be timid about, nothing to make him feel dependent, inadequate, or inferior, for he has once

and for all conquered the ultimate threat.

4. The thought of death urges one to assume a total plan for his life. The vitality of death leads one to adopt an ideal or goal, a noble life, or a major achievement as the purpose of existence. Through the vitality of death, one is able to see all events in life from the perspective of his total existence. This enables one to perform tasks that might otherwise be boring, discouraging, and senseless.

#### relentless verity

At the time of an exhibition of World War II photographs, the *Ottawa Journal* commented “There is a relentless verity about them that eats up the thousands of miles between Canada and the firing line...”. And there is a relentless verity to our theme.

Education for being-becoming-belonging. Education for living and for dying. It's not the kind of concept so admired by people these days, people who want to see all learning objectives specified in unambiguous lucid statements of behavioural changes to be carried out in short manageable steps. I have offered little that is orderly or symmetrical, little that can be easily computerized, little that lies snugly inside traditional disciplines, little for which governments or foundations have announced grant programmes. I have suggested much that is perplexing, defies easy curriculum design, casts some doubt on many present goals and pro-

grams, may seem to demand a range of method and content that will defy attainment of any quality. Perhaps you will think that I resemble the character in one of Stephen Leacock's books, who "flung himself upon his horse and rode madly off in all directions" or have earned the attribution that George Bernard Shaw gave to a contemporary "The writer who aims at producing the platitudes which are not for an age but for all time has his reward in being unreadable in all ages".

\* \* \*

In my paper I have said nothing very new. I have reminded us of some qualities and forces that mark or should mark the education, and self-education we foster. What is needed is wisdom that none of us possess except through sharing: and I mean wisdom not sophisticated slickness.

May I offer, as a form of para-

ble, the conversation more than 2,000 years ago between two adult educationists who met at Miletus.

**Teacher** What is the oldest of all things ?

**Sage** *God*, because he has always existed.

**Teacher** What is the most beautiful of all things ?

**Sage** The *Universe*, because it is the work of God.

**Teacher** What is the greatest of all things ?

**Sage** *Environment*, because it contains all that has been created.

**Teacher** What is the most constant of all things ?

**Sage** *Hope*, because it still remains with man when he has lost everything else.

**Teacher** What is the best of all things ?

**Sage** *Virtue*, because without it there is nothing good.

**Teacher** What is the quickest of all things ?

**Sage** *Thought*, because in less than a minute, it can fly to the end of the universe.

**Teacher** What is the strongest of all things ?

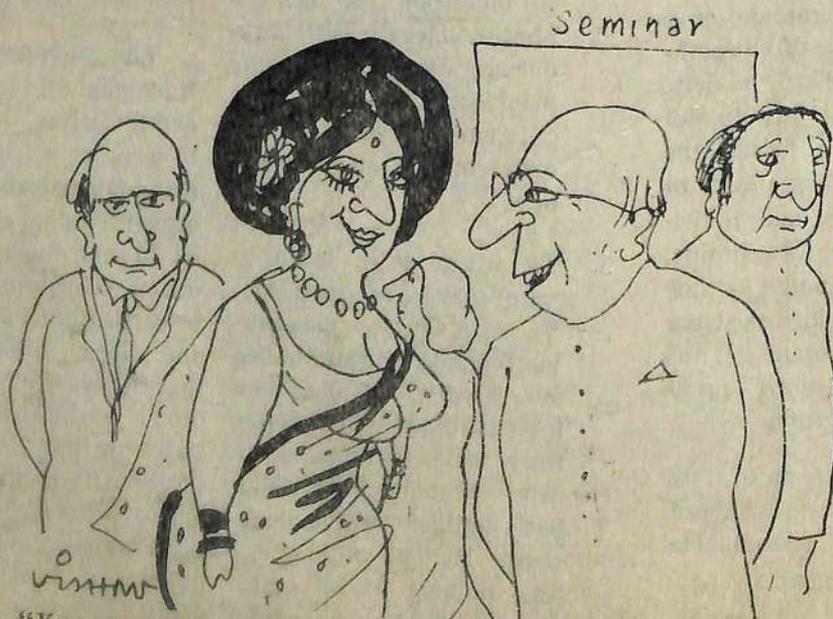
**Sage** *Necessity*, which makes man face all the dangers of life.

**Teacher** What is the easiest of all things ?

**Sage** *To give advice.*

**Teacher** What is the most difficult of all things ?

**Sage** *To know thyself.*



"Your presence is enough to provide an adult with a full and liberal education. . ."

# adult education in bangladesh

M.M. Anwar Ali

About eighty per cent of the present population of Bangladesh is illiterate and out of about 7.50 crore population, the number of illiterates in the age group 11-45 is 3.50 crores and by 1978 it may go up to 4.50 crores or more and in above 45 age group and below 11 years group the number may exceed 5 crores if the existing situation is allowed to continue and the same rate of population growth continues unabated.

The major task before the people and Government of Bangladesh may be summarised as follows :—

- (i) Rapid agricultural breakthrough which needs quick

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The author is the Deputy Educational Adviser, Ministry of Education, Cultural Affairs and Sports, Government of People's Republic of Bangladesh.

spread of education among the farmers who must learn the technological and organisational languages of modern farming.

- (ii) Maximum utilisation of the population of the age group 16-45 in economic development, which necessitates introduction of mass education programme not only through conventional methods like increasing the number of educational institutions or setting up of Adult Education Centres but demands effective utilisation of Radio, Television and other mass media, imparting of knowledge through non-formal education with the help of clubs, association of voluntarily motivated groups and integrated rural development programme.

- (iii) Emphasis on Functional Literacy so that the people can immediately be benefitted by their education and can effectively participate in the process of economic development.

- (iv) Inculcation of civic responsibility among the public. The People's Republic of Bangladesh is founded on the four basic principles of democracy, nationalism, secularism and socialism. This requires that education should reach all and that it should be imparted as an effective instrument of bringing about desired social changes as well as of fostering economic development of the country.

- (v) Integrated approach to Adult Education: Adult Education should be an integrated programme for literacy and education for economic development and rural reconstruction. In this regard involvement of all nation building department particularly, education, agriculture, cooperative and family planning is urgently required.

Integrated Rural Development Programme is perhaps an answer to this.

## experiment in adult education:

Under the V-AID (Village Agriculture and Industrial Development) Programme an attempt was made to mobilise local resources to ameliorate the condition of the rural people with particular attention to agricultural production, removal of illiteracy and general welfare.

As a part of V-AID an Adult Education Centre was established at Dacca in 1954-55. The Centre arranged training courses for teachers and published a number of books and a periodical bulletin. But the Centre ceased to function after the discountinuance of the V-AID Programme.

The Academy for Rural Development, Comila, was set up in 1959. To bring a change in rural economy, the Academy formed cooperatives in some selected villages. To increase a sense of participation among the villagers, the Academy adopted adult education programme which proved quite a success.

In 1963 the government created an Adult Education Division under the Directorate of Education with its Headquarters with the Academy at Comilla. For the administration of the project an Assistant Director of Public Instruction was appointed with necessary staff to direct control and to supervise the project activities. An Institute of Adult Education was set up for (i) Training of personnel including field level teachers; (ii) Preparation and publication of educational materials such as text books, follow-up books and other publicity materials and (iii) Research and evaluation of project activities.

### **project areas**

The Pilot Project for adult literacy was first introduced in four thanas (area under a Police Station) namely Comilla, Kotwalli, Natore, Gaibandha and Gouripur where Bangladesh Academy for Rural Development set up Co-operative Projects. This was to link literacy prog-

ramme with agricultural production.

The impact of experiment under the pilot programme which was later extended to eight thanas spreading over about 400 villages with 225,000 adult population, was encouraging. With new understanding of the value of literacy and education, they formed co-operative societies to boost agricultural production and to participate in social welfare programmes.

### **literacy programme after independence**

The War of Liberation has given a fillip to literacy programme. Local enthusiasm coupled with financial aid from abroad such as OXFANM, CORR and similar other organisations helped in taking up a number of adult literacy projects in different parts of the country. In this connection particular mention may be made of Sulla-Dirai, Gurudaspur, and Thakurgaon Projects. Here the students are playing the leading role. The Katchubri-Kristapeer village in Thakurgaon thana of Dinajpur District earned the most important distinction of being the first to get rid of the course of illiteracy. In appreciation of the great feat the International Literacy Day of 1973 in Bangladesh was inaugurated in Thakurgaon by the President of the Country.

Cooperative Societies in Rangunia thana of Chittagong District has taken up an unique example by opening about 350 adult literacy centres to eradicate illiteracy from the entire area covered by cooperatives. These are being run partly by voluntary

service and mostly by paid employees.

Adult Education forms part of teacher education programme in some of the teacher training institutions and literacy projects are taken up as a part of practical work by trainees. A number of educational institutions including the Dacca and Chittagong Universities have taken up adult education projects with the help of teachers and students. These are forward steps in realisation of the importance of this movement.

Bangladesh is presently following a pragmatic approach to the literacy programme. Emphasis is being shifted to non-formal education to encourage voluntary organisations, local enthusiasts and youths to impart knowledge and skill to selected groups and establishments to prepare themselves for more meaningful living.

A sum of Taka 40 crores comprising over ten per cent of the allocation to the Education Sector in the first year plan of the country has been earmarked for meeting expenditures under non-formal programmes. Though specific schemes for non-formal education have not yet been finalised, they are likely to include, among others, establishment of functional literacy schools, youth camps, workers' schools, women's educational centres, and non-formal vocational training centres etc.

### **committee for non-formal education**

A committee for non-formal education has already been set up by the Government of Bangladesh with the following objectives :

(i) Assessment of the coverage of the formal education system at different levels and categories.

(ii) Objective assessment and evaluation of the existing organizational and institutional arrangements for non-formal education such as apprenticeship training programme, agricultural extension programme etc.

(iii) Identification of the needs of non-formal education at different categories and disciplines and identification of the clientele.

(iv) Determination of the modes, methods and operational mechanism of imparting such education.

(v) Definition of objective for each specified programme and identification of priorities in our present socio-economic context.

(vi) Determination of the impact, advantage, cost and disadvantages of each programme in the priority areas.

(vii) Formulation of a broad policy guidelines and strategy for action programme relating to actual preparation of projects and their implementation.

(viii) Institutional arrangements, for preparation of projects relating to non-formal education, since this would involve more than one university.

#### education commission

With a view to reorienting the existing education system of the

country an Education Commission was appointed by the Government of People's Republic of Bangladesh in May 1972. The Commission in an interim report in June 1973, have made the following recommendations in the field of adult literacy :

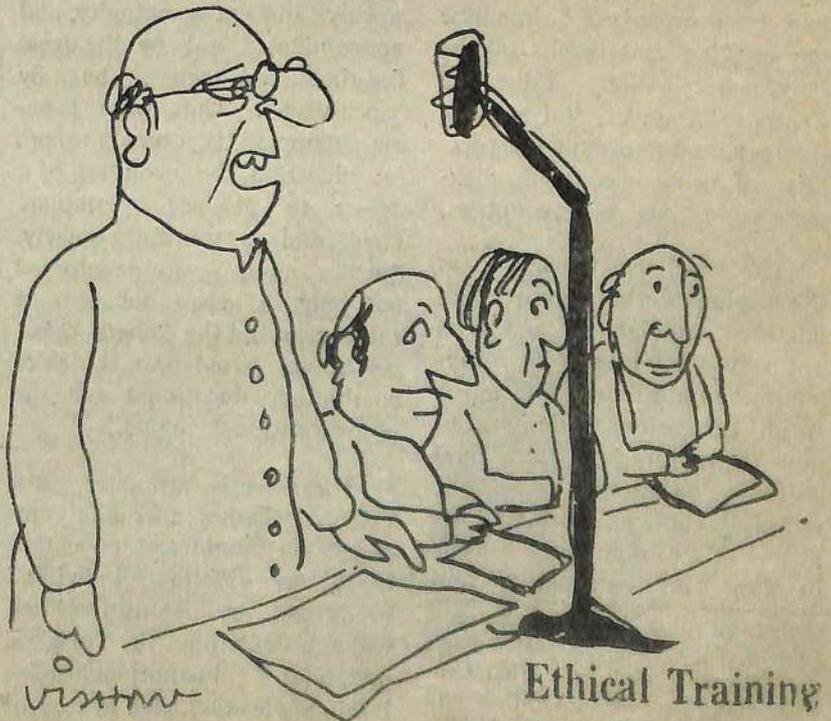
(i) An effective programme should be formulated at the national level in which Radio, Television, newspapers, political leaders and thinkers should play very constructive role so that all illiterate persons in the age group 11-45 numbering about 34.3 million could be made functionally literate by 1978.

(ii) An Adult Education Board should be set up with wide administrative and financial powers. The Board will remain responsible for opening of literacy Centres, appointment

of teachers and their training, preparation of syllabi and providing funds for publication of books etc.

(iii) An Institute of Adult Education should be set up whose functions should be (a) Research and evaluation on the improved technique of teaching; (b) Arrangement for training of teachers and administration of the programme; and (c) Preparation of improved syllabi and publication of text books and follow-up reading materials.

(iv) A high powered Adult Education Council should be formed with the Minister for Education as Chairman and Secretaries of the concerned Ministries as members. The Council shall be responsible for coordination and determination of policies.



#### Ethical Training in Education

*"Some of our trainees have gained admission by the back door . . ."*

# polyvalent education—a revolutionary developmental device or the old system under new trappings

Rakesh Hooja

THE Ministry of Education has placed a considerable emphasis in the draft Fifth Plan on the use of Polyvalent Adult Education Centres to combat ignorance. Viewed in this light the recently released Final Report\* of a Seminar on Polyvalent Adult Education Centres, organised jointly by the Ministry of Education and UNESCO at Bombay from September 20 to 27, 1971 assumes great significance (even if the deliberations and facts set forth in the publication are slightly dated). The seminar had been organized to analyse the working and results of the Polyvalent Adult Education Centre (Shramik Vidyapeeth), Bombay, and to examine possibilities of using the Bombay experience in other Asian countries.

The word *polyvalent* is, as the seminar working group itself admitted, ambiguous and does not convey any idea of its meaning to the uninitiated. Polyvalent Adult Education is designed to serve the multifarious educational needs — vocational, academic, technical, cultural, civic, and the like — of a worker so as to fully develop his personality and

\*Polyvalent Adult Education Centres— Report of the Asian Regional Seminar on Polyvalent Adult Education Centres, 'Ministry of Education and Social Welfare, Government of India, Delhi, no date, (Publication number 993), p. p. 64.

ensure better participation on his part in the community. Such education must, perforce, be integrated and interdisciplinary; structured around the convenience and interests of the workers as regards the timings, venues, and types of formal integrated courses, informal get-togethers, as well as cultural programmes to be organized; and geared towards the life-long education of the worker. Thus Polyvalent educational programmes are essentially flexible, being based on the needs of individual workers and the community, and are conducted not by the usual full-time pedagogues, but by "specialists". Thus what is being attempted is a breakthrough in education, the evolution of a device to produce "complete men" and to transform society. Such a mode is to be adopted not only in urban but also in rural areas and the *Gramik Vidyapeeths* are based on this idea of combining educational and the non-educational inputs.

The idea is attractive. But I doubt whether adequate emphasis on nonformal education based on differing individual needs can be institutionalized without defeating the original intention; institutionalization inevitably leading, due to reasons of administrative convenience, to greater regularity and uni-

formity—even bureaucratization. Further the material cost of including all citizen in such a comprehensive scheme of life-long education-recreation-socialization leading to universal personality-building would be much more than any developing country could afford to incur. Nor are all the citizens likely to be keen for such all-sided education, most deeming bread and butter issues to be the only important aspect of life and disdaining the need for waste on the development of, what they consider, unnecessary (pseudo?) cultural trappings. Most such people seem to place greater emphasis on degrees and diplomas as passports to betterment of their prospects rather than on learning and education.

As it is, in India we are having enough trouble due to democratic pressures, in trying to impart limited formal education to the masses who demand it as a right. To attempt to make universal education more comprehensive and all inclusive, given the existing resources, would smack of madness. And no one is going to allow a few Polyvalent Centres to serve a privileged few in a country where public schools and other better managed institutions are considered unsocialistic. Thus, if we cannot offer 'for Polyvalency' for all should we attempt it at all ?

Not only do we lack in material resources, but also in the human resources to run such centres with sufficient imagination, understanding and dedication. Would not the Polyvalent Centres undergo the same fate as the universities where students, teachers and university administ-

rators are now occupied in a full-time fight over the share of the cake that they can snatch at any given moment?

The experience of the Shramik Vidyapeeth set up in Bombay in 1967 seems to bear out these doubts. It was intended "to provide part-time instruction aimed at the total life of the worker" through the utilization of a nucleus of small full-time staff and the involvement of existing workers organizations and employers bodies. In the first two years of its existence it had trained about seven hundred and fifty participants in fourteen different courses. However it was discovered that the Vidyapeeth had in reality been forced to limit itself to offering indifferently structured job-oriented courses to people already in employment who could not, for reasons of time or money, benefit from regular full-time or part-time courses. A true polyvalent approach could not be attempted in Bombay for, as the Seminar Report admits, the informal educational programmes (organization of film shows, exhibitions, workers discussions etc.) for the development of an appreciation among the workers of visual art, music, books, various other hobbies and the like—outside of work hours, during lunch intervals and between shifts suggested by the UNESCO expert "call for different scale of endeavours". The Vidyapeeth has remained a mere technical skill imparting agency with a hope that as it develops its new courses it may examine the possibility of developing unit courses which over a period of time can enable a worker to qualify for certificates and diplomas instituted by the

State Government". As if the Vidyapeeth was no more than another vocational training institute.

The 1971 seminar had concluded that there is a need for polyvalent adult education and that "predetermined and pre-designed courses with stress on a single aspect such as literacy, vocational training, recreation or civic education is not sufficient". Courses should be planned on the basis of the actual felt needs of and the problems relating to the participant's life and work. Vocational instruction should be integrated with general education. More part-time specialist instructors should be employed, rather than a few full-time employees, and greater efforts be made to motivate workers and sustain their interest in the courses. Other agencies collaborating with the Polyvalent Centres (employers and trade unions) should be induced to play a greater role and huge outlays on buildings and equipment avoided with their help. Thus, once the apathy of the workers and management has been overcome, classes may conveniently be held with great success at places of work. Also stressed was the need for thorough training of the polyvalent instructors.

Alas, a look at the schemes of the Ministry of Education for the Fifth Plan seems to indicate that the note of caution set forth in the Report against the spirit of polyvalent education being forsaken for adoption of a hollow Polyvalent Centre structure seems destined to be ignored. More Shramik and Gramik Vidyapeeths are planned to provide courses to improve the job

competency of workers leading to their increased productive ability and hopefully, simultaneously enriching their personal life. It is pointed out (with pride) that in the first five years of its existence the Bombay Shramik Vidyapeeth had imparted sixty courses to over a thousand workers. Obviously none of the thousand participants could have received comprehensive and continuing education, but pushed through a formal skill oriented course. It is now planned to open ten more Shramik Vidyapeeths during the Fifth Plan. While I do not doubt that the number of citizens passing through such Centres would increase, I fear they shall become as formal as our universities and that a multifaced polyvalent approach which would treat each participant differently according to his specific needs would never become a reality.

What I would like to see done, even if on a limited scale to begin with, is what the Institute of Adult Education of the University of Ghana apparently claims it is experimenting with; the setting up of local institutes to change the life style and world view of citizens permanently attached to them. For, after all, what is the purpose of education? Not merely to provide students with degrees or prepare a person for a career, but also to make him fully capable of successfully facing *all sorts of* future problems in a changing world to lead to his personality development in all spheres (so that he may become a "complete man") as well as to help transform society efficiently. Surely such a process has to be personal, even intimate, many-sided, total and continuous

# association news

Evaluation Specialist at UNESCO in Paris on March 13, 1974.

Dr. Saxena was a member of the Executive Committee of the Association from 1966 to 1968. He was a member of the Editorial Board of the *Indian Journal of Adult Education* from 1961 to 1966. He was Director of the National Seminar on Social Education and Democratic Decentralisation organised by the Association in Coimbatore in 1961.

## executive committee meets

At a meeting of the Executive Committee of the Indian Adult Education Association held in Delhi on March 26, 1974, the responses received from the member organisations on the theme of the next conference were discussed. It was decided to set apart a day for the discussion on "Socio-Economic back-ground to Rural Poverty". It was also decided to request Shri Sugata Das Gupta, Gandhian Institute of Studies, Varanasi, to deliver the key-note address.

The theme of the conference "Adult Education Programme in the Service of Rural Poor" will be discussed in the following four groups".

- (1) Techniques of Literacy Teaching to Farmers and Rural Artisans, both rural men and women.
- (2) Training in self-help for undertaking cooperative activities, specially to reach as far as possible, the lowest rungs of the social and economic ladder.

(3) Formal and Non-formal education programmes for rural women.

(4) Non-formal and out-of-school training programmes for the rural youth of the age group between 16 and 30 years.

The budget proposals of the Association for the year 1974-75 for Rs. 2,993,50/. for recurring items were approved subject to the availability of funds. But the Committee put a ceiling of Rs. two lakhs for construction of the building.

The Committee decided that for 1974 Zakir Husain Memorial Lecture one of the following two should be approached : Dr. M. S. Swaminathan and Shri V. M. Dandekar.

## foreign visitor to the association

Shri Abul Qasem Sandwip Director, Mass Education Scheme of the Bangladesh National Co-operative Union, Dacca visited the office of the Association recently. He had discussion with the members and staff of the Association on adult education programmes in India and Bangladesh.

## new publications

The Association has recently brought out the Hindi translation of the following Unesco books :

1. *Literacy and Development*  
by H. M. Philips  
Re. 1/-
2. *Functional Literacy :  
Why and How*  
Re 1/-

## scheme for socio-economic development of women

The Association proposes to initiate a pilot demonstration project integrating condensed courses with socio-economic programmes for women in backward areas of Delhi. It is proposed to set up two such units with an enrolment of 30 women in each unit. The scheme envisages involvement of women in productive programmes to supplement their family income while preparing for the Higher Secondary Examination. The pilot demonstration project it is hoped will open new vistas for the programmes of CSWB.

## saxena passes away

We deeply regret to record the death of Dr. H. P. Saxena,

# from our correspondents

## Mysore

### **muniswamy joins mysore university**

Shri K.S. Muniswamy, who recently retired from the important position of General Secretary, Karnataka State Adult Education Council has been appointed in the Department of Continuing/Adult Education, University of Mysore. He has assumed charge of the new assignment on March 6, 1974.

Shri Muniswamy served the Mysore (Karnataka) State Adult Education Council for about 28 years in different capacities and his contribution to the expansion of the activities of the Council is universally recognised. He has toured abroad on several occasions and studied adult education and is mainly responsible to building up the Vidyapeeth Movement in Karnataka. He is the Associate Secretary of Indian Adult Education Association, New Delhi and is country's eminent adult educator.

## Madras

### **vishnu on adult education**

Dr. Vishnu Sarma, an eminent obstetrician and gynaecologist and equally well known to millions of readers in India and abroad as cartoonist 'Vishnu' gave an illuminating talk on 'Cartoons for Adult Education', under the auspices of Adult Education Association, Madras. The lecture was delivered at the Kalyani Kindergarten premises on the 3rd

March, 1974. The President of the Association, Prof. C.V. Sethunathan presided. Km. Sita Patankar, General Secretary of the Association welcomed the gathering.

Dr. Vishnu referred to the important role of cartoon as a tool of social and political satire. The cartoon not only conveys information but also entertains, and intelligently cajoles readers to appreciate the implication in a given situation. Thus it becomes a tool or source of adult education. The lecture was made more interesting through illustrations, sketches and passing around selected cartoons published in a number of English and Tamil journals.

## Delhi

### **delhi adult education association**

The Delhi Adult Education Association proposes to start with the assistance of the Delhi Social Welfare Board a condensed course for adult women. The women will be prepared for matriculation examination of the Central Board of Secondary Education.

The Association also intends to start five more functional literacy and continuing education centres for adult women with the assistance of the Ministry of Education and Social Welfare. One such centre is already being run by the DAEA with financial assistance from some philanthropists.

The DAEA has instituted an award to be given to an individual of Delhi for outstanding performance in the field of adult education. The award is likely to be announced in its annual

General Meeting in May this year.

## Calicut

### **Training Course for N.S.S. Lecturers**

The University of Calicut organised from Feb. 11 to 15, 1974 an orientation course in Adult Education for 30 college lecturers who are in charge of National Service Scheme. These lecturers were deputed by the affiliated colleges. The sessions were held from 9 a.m. to 5 p.m. at Government Arts & Science College, Calicut. The total instructional hours in the course were 33.

The course was inaugurated by Prof. K. Madhava Menon, pro-Vice-Chancellor of Calicut Varsity. He gave a few suggestions from his own experience and explained how to work with adults and what difficulties are faced in such work and how they are to be solved. Shri M. Kunhappa, Associate Editor, Malayala Manorma' daily, Calicut, presided over the function.

The topics of orientation course included adult psychology, methods of teaching adults, organisation of literacy classes, contents of functional literacy syllabus etc. as well as agriculture, family welfare, poultry and dairy farming, co-operative organisation, small scale industries, control of communicable diseases, production of literature etc.

The closing session was addressed by P.O. Ummer Koya, Editor, Viplavam daily, Calicut, and he distributed the certificates to the participants. He congratulated the lecturers for finding out some time to devote to the cause of NSS as a nation building work.

# communication

## educational crisis

DR. Adiseshiah's paper "Relevance of Adult Education to our Educational Crisis" published in January 1974 issue of this Journal gives an excellent account of the nature, limitations, and ills of the present educational system. Dr. Adiseshiah suggests non-formal life long education as the remedy for the present educational crisis. I feel that formal and non-formal education should not be considered as two separate systems.

## vocation centred non-formal education—some limitations and remedies

There is a word of caution to planners of non-formal education programmes. There are various types of educational activities which can be organised under the expression non-formal education such as programmes to make up educational deficiencies as well as programmes for family improvement and continuing education. The urban elite may find it easy to think of non-formal education programmes of unproductive nature such as mere literacy for out-of-school youth and adults, language proficiency courses, electoral education, cultural activities etc. which may prove futile in the context of the present deepening educational crisis. The country needs more production on all fronts—on farms and factories. The non-formal education programmes should be selective to attain these objectives. This is possible only

if vocation centred education becomes an integral part of the life long educational process right from primary to university levels, and even further. The venues for this can be farms, homes, markets, factories and educational institutions during off hours. They will not only be productive units but also become the practical training centres for the learners. The lower level units will be organically linked with higher level units to seek guidance and support in their efficient management.

## myth of literacy

Another important hurdle that non-formal educationists faced and failed to cross is the low motivation for literacy in adults. An adult is not convinced, and rightly so, that literacy is a magic rod which will bring an end to all his problems. He does not see much use of literacy skills in his limited world where verbal communications still hold good. Some of the enthusiastic adult educators still give too much emphasis on literacy without drawing lessons from these experiences. They think that by promoting literacy they will be able to solve all the present political, economic and social crises. Huge sum is being wasted on this myth. For the pressing economic needs the basic question is that of priorities. It is vocation centred non-formal educational approach interlinked with literacy at a later stage that will receive good response. The major problem then is in identifying the vocations, developing proper contents and techniques of imparting instructions as also training of workers who can handle the programmes with confidence.

## restructuring basic unit of education and redesigning the industrial policy.

Vocational education in its true spirit has yet to be brought into the mainstream. The basic unit of education should be the district, or even block in some cases, instead of a state or a region. Reduction in size will promote intensive and efficient management and a greater sense of comprehension, involvement and participation on the part of the people.

If we accept vocation centred-life-long learning as a priority programme of non-formal education at all levels, the out-moded industrial policy has to undergo drastic change. The present mixed industrial economic policy is furthering the cause of big industrialists. The small scale industries and handicrafts are being over-shadowed by big automatised industrial groups. The new industrial policy should ensure that the big industrial houses do not compete with small entrepreneurs but assist them in efficient management and better functioning. There should be a clear cut demarcation in respect of production of consumable goods by small and big entrepreneurs — e.g. if items like bed sheets and hand print sarees are allotted to small units, no mill should be permitted to produce them. This will provide favourable climate to initiate vocation centered non-formal education programmes and solve the problem of unemployment to a very great extent. This will also be a step forward towards developing a socialistic pattern of society.

Indian Adult Education Association, New Delhi. **Virendra Tripathi**

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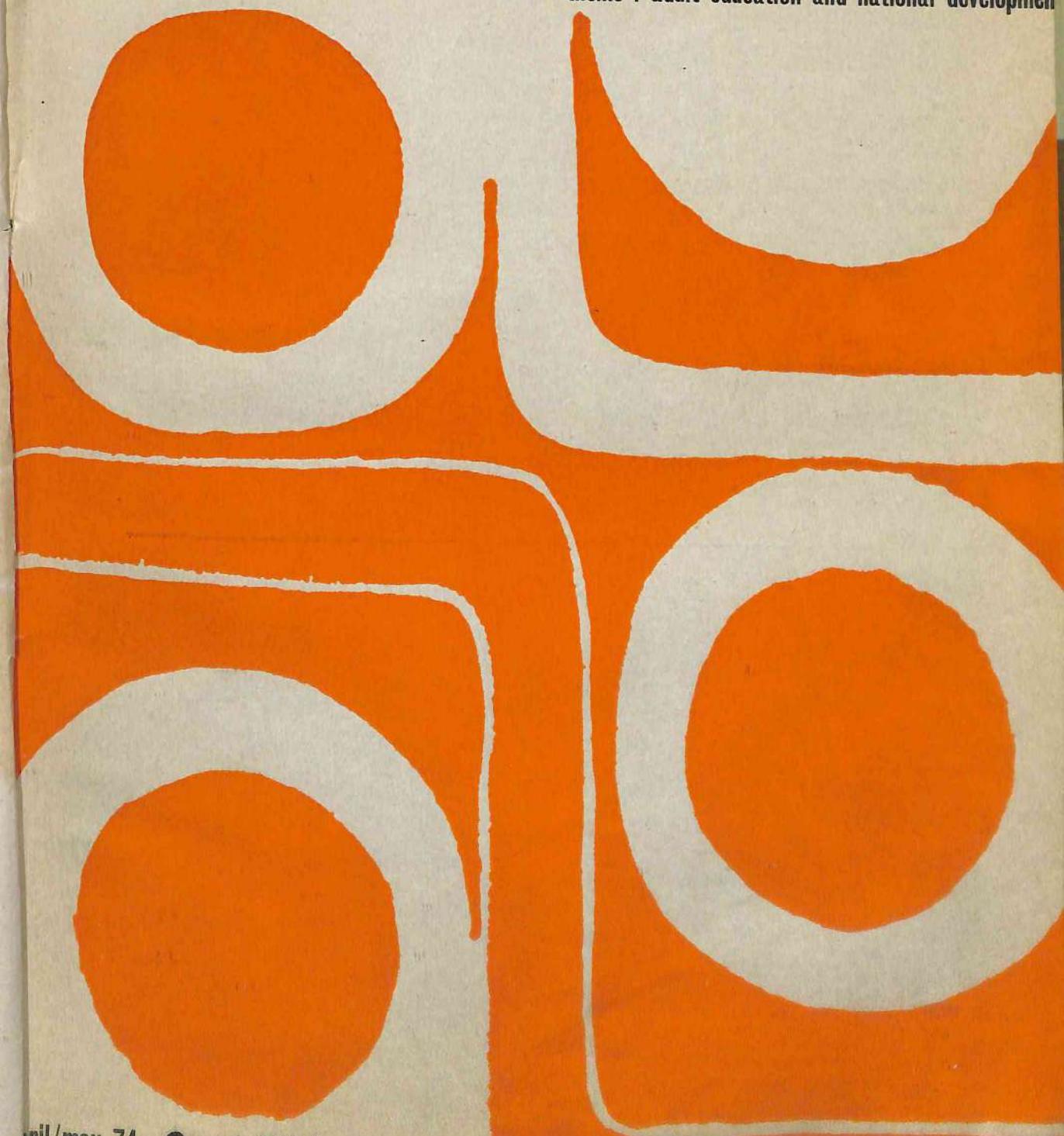
1. On to Eternity—Vol. III, 1974	Rs. 6.00 \$ 2.00
2. A Literacy Journey—C. Bonanni, 1973	Rs. 8.00 \$ 3.00
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4. Adult & Community Education : An Indian Experiment—S.R. Mohsini, 1973	Rs. 10.00 \$ 4.00
5. Adult Education in India—A Book of Readings—Edited by Anil Bordia J.R. Kidd and J.A. Draper, 1973	Rs. 50.00 \$ 10.00
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7. Manual for Adult Literacy Teachers,—N.R. Gupta, 1971	Rs. 10.00 \$ 2.75
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# indian journal of adult education

theme : adult education and national development



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# government's position paper

The Regional Seminar on Adult Education and National Development organised in New Delhi, March 23-29, 1974, by the Department of Adult Education, University of Manchester on behalf of the Commonwealth Secretariat provided an occasion to the representatives of the participating countries to make a statement about the place of adult education in national development. The organisers of the Seminar, as well as the participants, were conscious of the increasing awareness in this respect as reflected in the Edgar Faure Commission Report which views adult education as "the normal culmination of the education process".

In the country paper presented on behalf of Government of India by Shri Shahid Alikhan, Joint Secretary in the Ministry of Education, reproduced in this number, the author has endorsed the resolution of the Jogjakarta Conference of Asian countries which declared "that the achievement of a high level of consumption is not always a guarantee of cultural vitality" and "that the attainment of a humane society is the ultimate objective of all cultural developments". The Government of India's paper further states:

In the light of such objectives and orientations, education also needs to be modified and enriched with new goals, so that it may contribute to the self-realisation of peoples, the liberation of man and the opening up of new perspectives. Education in general, and adult education specifically, is now expected to bring millions of young people and adults into the main stream of the struggle to discover and build the future of nations.

This is the basic task for adult education in the light of direct and indirect correlations between development and education.

While stating the specific objectives of adult education during the Fifth Plan Shri Shahid Alikhan emphasised that adult education must serve the Plan objectives as stated in the Approach Paper of the Fifth Plan. The objectives of adult education for the Fifth Plan have been mentioned as follows :

*Firstly*, non-formal education integrated with formal ways of learning weaved into the very matrices of the educational system and serving the educational needs in particular of the weaker sections.

*Secondly*, emphasising mass approach, a target has been set at 10 million youth in the age group 15-25.

*Thirdly*, adult education, particularly manpower training and functional literacy, are viewed as directly linked with development programmes in the rural areas and it is hoped that all such schemes will have a built-in component of adult education.

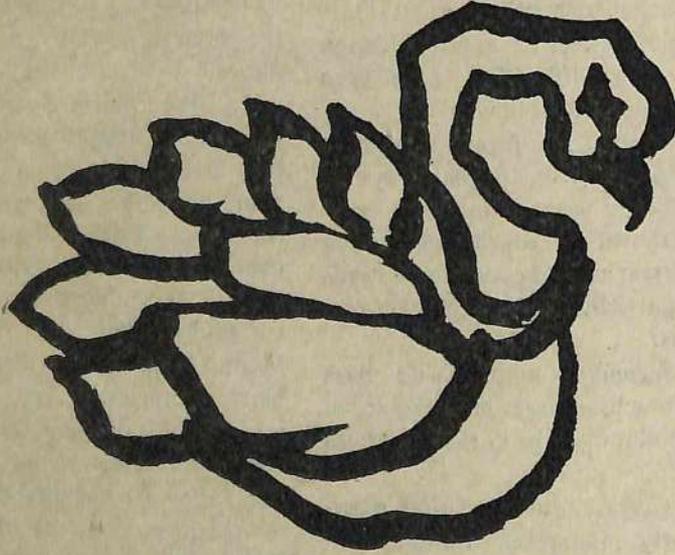
*Fourthly*, recognising the growing importance of urban areas, training of urban adults for civic participation, industrial development and better living are given importance.

It is clear that there are now indications of much greater interest among the authorities in the role of adult education in national development and that they are willing to make a categorical statement to this effect. It remains to be seen whether this encouraging development is translated into adequate financial support.

It is no secret that when the draft Fifth Plan of different States was being discussed almost all the States had made inadequate provision for adult education and allied schemes. It was after considerable persuasion by the Ministry of Education and the Planning Commission that most States agreed to make a provision which was much higher than the Fourth Plan. A study of the annual plans of 1974-75 of the States, however, shows that almost no State has provided even 10%, which is expected to be the minimum allocation in the first year of a five year plan, of the outlay agreed for the Fifth Plan. Moreover, the amount provided includes expenditure on schemes continuing from the First and Second Plans like district and block libraries. And although no one will dispute the importance of libraries in adult education, they are not directly related to the objectives of the Fifth Plan as stated by Shri Shahid Alikhan.

The position of resource allocation in the Central sector is still far from clear, as can be expected from the fact that the Fifth Plan has not yet been finalised by the Planning Commission. It is, however, unlikely that the different administrative Ministries incharge of implementation of development schemes will actually provide the hope for built-in component or that the adult education wing of the Ministry of Education will receive adequate allocation to launch the ambitious programme they have planned.

All persons working in the field of adult education will, however, welcome the paper presented by Shri Shahid Alikhan and will hope that adult education would play the role envisaged in it.



अपि चेदसि पापेभ्यः सर्वेभ्यः पापकृत्तमः ।  
सर्वं ज्ञानप्लवेनेनैव वृजिनं संतस्थ्यसि ॥

**The Bhagawad Gita**

**Even if you be the most sinful of all sinners, yet shall you cross over all sin by the raft of knowledge.**

Sin and virtue are the obverse and reverse of the same fact which is *Karma*. According to use made of it. The same *Karma* presents itself as sin or virtue. The ignorant do *Karma* so as to get entangled in it as sin. The enlightened do the same *Karma* to reap merit and also to be emancipated from it. Knowledge therefore is the only means to absolve all sin. As the unfordable river is crossed over by a raft, the meshes of *Karma* are got over by knowledge.

Swami Chidbhavananda

# trends in indian adult education

D.P. Yadav

## new dimensions

Adult education has a very important role to play in modern societies. Educational workers in general and adult educators in particular, have to take notice of a number of very important and major developments which are influencing the pattern of their work. The growth of modern science has introduced in our lives the use of equipment requiring continuous acquisition of more information and knowledge about them, their upkeep and simple repairs. The ever rising flood of new knowledge brings in new concepts so that whatever one has learnt in school and college in one's childhood and youth, gets quickly outdated, and needs to be replenished. Events like the Green Revolution, or the High Yielding Crop Production Programme, required new know-

Inauguration address at the Commonwealth Regional Seminar on Adult Education and National Development held at New Delhi in March 1974. Shri Yadav is Deputy Minister in the Ministry of Education, Social Welfare and Culture, Government of India.

ledge, know-how and modified attitudes from millions of farmers. Advances in technological and specialised skills have brought in new techniques of production and management and have created new types of jobs; and what is more important, these developments have changed the nature of old jobs necessitating continuous need for training and retraining. The breakdown of traditions and customs has resulted in lack of understanding and conflict between the outlook of the old and the new generations. Acceptance of parliamentary democracy and democratisation of cultural life have involved the common man in the deliberative and decision-making processes. There is a large scale movement of population all over the world from rural to urban areas, from region to region, and from country to country; in all such cases, the social, emotional and economic adjustment will be easier if the mobile citizen came to the new environment intellectually and mentally prepared to learn new ways of living, thought and practice.

These are some of the major considerations which have added new dimensions to the role of Adult Education.

A very significant programme of adult education would be the liquidation of illiteracy. In spite of the efforts made in the past two decades or even longer, world literacy today is only around 35% and the number of illiterates stands at the staggering figure of 783 million. No human progress or social and economic egalitarianism worth the name is possible so long as this situation is allowed to continue. Human justice and wisdom demand that this gap between the two zones in human society be bridged with a sense of imperative urgency.

The ideals, objectives and goals which people and governments strive to achieve get directly reflected in the ways in which information, education and training are transmitted to innumerable adults—men and women, workers and farmers, literates or illiterates, young and old, school drop-outs or those out-of-school. That is why programmes of adult education developed in one country are of great interest and advantage to others.

I would like to highlight a few major trends in our educational practices and orientations, which augur well for adult education in the future. If these efforts yield anticipated results, we can look forward to some decisive modifications in our educational policies and practices.

## increase in financial allocations

First of all, there is a substan-

tial increase in financial allocations for educational activities outside the formal system. While the Fifth Five Year Plan is providing large additional amounts for all educational areas, an increase of more than 400% has been provided for in the areas of adult education, as compared to the Fourth Plan. Although in absolute terms, this is still modest, the increase shows that at the policy making levels, there is a growing concern about providing educational facilities for out-of-school youth and for adults. It goes without saying that we have to ensure the efficient use of these financial allocations.

### **coordinated effort**

Secondly, there is a noticeable change in the traditional attitude towards the relative roles of governmental and non-governmental agencies in education. Too long has the system suffered from a rigid division of responsibilities which held that government's domain of operation was mainly in the area of formal education, while non-governmental voluntary organisations have to make the bulk of the effort for out-of-school education, notably for adults. But now it is being increasingly realised, especially among policy makers and educationists that adult education can no longer be kept isolated from the general stream of education either in content and philosophy or in the agency implementing it. For, adult education in its fullest meaning of life-long and continuing education has become so varied and complex that it needs to be developed by all those who can make some contribution. Unless all organisations, institu-

tions and agencies which have contact with and responsibility for the adult population join forces, the task of adult education cannot be organised comprehensively and successfully. Various government departments, developmental and employment agencies, farmers associations, schools and universities, employers and employees, trade unions and clubs, all have to lend a hand in this effort. The big task ahead of us is therefore, to mobilise and coordinate all potential agencies and resources in this programme.

### **non-formal and part-time education**

Thirdly, the concept of the educational system is itself undergoing a major, if subtle, change. As in many countries, the Indian educational system was hitherto almost exclusively designed for instruction in full time institutions, served by professional teachers, open only to those who could afford the leisure and money to devote one part of their lives exclusively to institutionalised education. It totally ignored the vast majority of the population which could not take advantage of the system under these terms, and had no alternative service available. It was inevitable, in these circumstances, that educational institutions moved more and more away from community contact, that educational content by and large lost relevance to collective and individual needs, and that the working population had little chance of combining work and continuing education. As the Special Committee which recently studied this problem observed: "The present educational system in the country is broadly a single-point entry,

sequential, full-time system of institutional instruction. It is essential to transform it into a new system in which there would be opportunities for multiple lateral entries at several points and in which all the three channels of instruction—full-time, part-time and self-study—would be integrated in an appropriate fashion and would have equal status". This means a big change, and if realised, will signify a major metamorphosis in our educational enterprise.

The first steps have been taken to build in our Fifth Five Year Plan non-formal educational facilities at all stages at the *elementary stage*, the multiple entry and part-time programmes; *for out-of-school youth* : non-formal programmes for the age group 15-25; *at the secondary stage* : part-time classes in secondary schools for those who are already working, examination facilities for private candidates and correspondence courses; *at the university level* : the establishment of an Open University at the national level, and provisions of facilities for correspondence education in at least one university in each State; *for adults* : a variety of non-formal programmes, according to their needs. The acceptance of these concepts, and the provision of a legitimate place for them in the national system, is a gratifying departure from the traditional approach, which had, any way, proved out of step with our changed needs and circumstances.

### **link with development programmes**

Fourthly, there is a visible trend to link the programme of

liquidating adult illiteracy with development schemes and programmes. In other words, it is an effort to find a correlation between economic and social objectives and educational inputs. What it means in practical terms is that an educational "component" is integrated with developmental schemes as for example with agricultural production, development of family life education programmes etc. The first step in this direction has been made by the Farmers Functional Literacy Programme which is jointly operated by three ministries of the Government of India, namely, Education and Social Welfare, Agriculture, and Information and Boardcasting. Functional Literacy in India has a dual role to play. As an integrated component of the joint project, it acts as a service programme in so far as it helps to improve the efficiency of the farmer in the programme of agricultural production. At the same time it is linked with the World Experimental Literacy Programme of UNESCO and herein it assumes the role of an experimental project. Evaluation studies of the impact of the Functional Literacy programme have shown some positive results.

They have revealed that the programme of Functional Literacy has developed literacy skills of varying degrees of utility, disseminated knowledge of improved agricultural practices, speeded up the adoption rate of these practices, and effected certain changes in attitudes. There is also abundant evidence to indicate that the Functional Literacy training has a positive influence in making an impact on agricultural knowledge and adoption of

innovations. A start has already been made to try out the same principle in other areas. Educational "components" have been built into programmes of child-care, family life and family planning as well as in several employment schemes. Step by step we are moving closer to the view that mere literacy (that is, the knowledge of 3 R's) is not enough. Unless the programme of literacy or adult education was integrated effectively with the plans of economic development, the aim of removing poverty will not succeed. All programmes of development should have at least a small portion of their financial provision earmarked for training in skills and literacy.

### **youth involvement**

Finally, a major innovation is the emphasis on education of non-student youth, particularly the out-of-school ones in the age group of 15-25. This group of youth is usually neglected, or receives marginal place in educational activities of many countries. As we know from experience, enrolment of a child in elementary school does not signify much unless the system can hold him until a certain stage of attainment. As of now, more children drop out on the way, than reach the end of primary school. Out of 90 million youth in the age-group 15-25, about 47 million are illiterate, and 20 million are semi-literate. Until recently we had no programmes or institutions to take care of their special educational or professional needs. Recently, however, we have taken up a programme of non-formal education, including literacy, for these young persons, developed round a group of new

institutions called the Nehru Youth Centres (Nehru Yuvak Kendras), which are being established one in every district of the country. There are already 94 Kendras in existence. The aim of these youth centres is to bring education closer to community life and needs, to provide constructive channels for the fulfilment of individual and group aspirations, and to create opportunities for youth to participate in community work, and in development and decision-making processes. These centres are primarily designed to organise out-of-school education for youth, with special emphasis on literacy and non-formal education covering current topics, trade policies and economics, civics and general science, skills and agricultural improvement, health and family life. The Centres also provide facilities for creative activities through youth participation in the performing arts, especially folk dance music and theatre, for organised sports and physical education, and for constructive use of leisure time. In other words, it is a programme of participation by the youth, for the youth, for the optimum exploitation of youth potential, and for youth development.

These are some of the major innovations in the Indian educational scene. One thing is obvious: adult education in this widened perspective is an uncharted sea. It is a field where many innovations will have to be tested, evaluated and tested yet again, as we go along. What is of crucial importance to any measure of success in this effort is a spirit of intense dedication, courage to adopt unorthodox methods, flexibility, and vision.

# adult education and national development

Shahid Alikhan

## adult education : a long tradition in india

Adult education has had a long history in this country, and we had evolved, over the centuries, several interesting forms of non-formal adult education so that an average Indian, who may have been illiterate for lack of access to formal education, was still a man of culture and character. It is true that this non-formal system had its own weakness : it made people excessively tradition bound, and restricted social mobility. But it also has its own immense strength and vitality which it would be wrong to ignore.

In the last 150 years or so, this tradition was neglected as a result of the over-emphasis that came to be placed on formal education. The balance has now started to swing the other way and we hope to evolve, over the next ten years, new forms of adult education, more suited to our own needs and aspirations, which will revive the traditional forms that still have rele-

vance and blend them with the newer and more powerful techniques of formal education and mass media.

## adult education and national development : evolution of the concept

It is now universally acknowledged that education is an essential component of development, that developmental objectives cannot be fully achieved without education, and that education in turn is influenced by developmental processes. Nevertheless, the inter-relationship between society and education are far more complex than they were assumed to be in the past. The contribution of education to the achievement of socio-economic goals is not easily measurable or identifiable. Nor does education contribute in all circumstances to development. In fact, the concept of "development" itself has undergone a change and several of our traditional views about it are now being questioned. The old ideas of transferring "society models" from one part of the world to another, of backward countries "catching up" with advanced countries, or of "bridging the gap" between the so-called developing and developed nations—

are no longer valid. In a recent conference on cultural policies, held in Jogjakarta, representatives of Asian countries declared :

"... that economic development should aim at the enrichment of human life by bringing material, spiritual, social and individual value into harmonious balance . . . that the achievement of a high level of consumption is not always a guarantee of cultural vitality . . . that the attainment of a humane society is the ultimate objective of all cultural developments . . . that collective self-realisation and the authentic liberation of peoples is the quintessence of the humane society . . . that the inner life of man is an essential foundation of the cultural achievements of Asia . . ."

In the light of such objectives and orientations, education also needs to be modified and enriched with new goals, so that it may contribute to the self-realisation of peoples, the liberation of man and the opening up of new perspectives. Education in general, and adult education specifically, is now expected to bring millions of young people and adults into the main stream of the struggle to discover and build the future of nations. This in my opinion, is the basic task for adult education in the light of direct and indirect correlations between development and education.

## past achievements

It is but natural that the problem of mass illiteracy should have been the first to attract the attention of our planners. The First Five Year Plan recognised that democracy would not take root in a situation when nearly 80 per cent of the population was illiterate. The Second Five Year Plan went further and stressed the link between demo-

Country paper presented on behalf of the Ministry of Education, Government of India at the Commonwealth Regional Seminar held at New Delhi in March 1974 on Adult Education and National Development. The author is Joint Secretary in the Ministry.

cracy, development and education. It declared that "rapid social and economic progress along democratic lines and widespread illiteracy are scarcely compatible with each other."

The subject came again into focus when the Education Commission (1964-66) examined the entire spectrum of education in relation to national development and observed that illiteracy was inconsistent with an age of scientific and technological progress and emphasised the need to liquidate illiteracy and to provide facilities for continuing education. The Commission went on to state that conventional methods of hastening literacy were of poor avail, and if that trend was to be reversed a massive unorthodox national effort was necessary.

The urgency to liquidate mass illiteracy for achieving developmental goals was also reflected in the Resolution on the National Policy on Education, issued by the Government of India following the Commission's Reports :

"The liquidation of mass illiteracy is necessary not only for promoting participation in the working of democratic institutions and for accelerating programmes of production, especially in agriculture, but for quickening the tempo of national development in general. Employees in large commercial, industrial and other concerns should be made functionally literate as early as possible. A lead in this direction should come from the industrial undertaking in the public sector. Teachers and students should be actively involved in organising literacy campaigns, especially as part of the Social and National Service Programme."

Thus, the conceptual framework of adult education came to reflect two major concerns :

the magnitude of illiteracy among adult population : and its effect on the nation's social and economic development.

We have been able to organise some good literacy programmes. Particular mention needs to be made of the *Gram Shikshan Mohim* of Maharashtra in which several hundreds of villages were made entirely literate at a very low cost through the voluntary effort of the people. But on the whole, our approach to the problem of illiteracy was to rely more on extending primary education than on direct literacy campaigns among adults. We have done a big job in this sector. In 1947, only one child out of three in the age-group of 6-11 was enrolled and only one out of 11 in the age-group 11-14. At present, 4 out of 5 children in the age-group 6-11 are already in schools; and, in the age-group 11-14, two children out of five have been enrolled. By the end of the Fifth Plan, we expect to provide for almost universal education in the age-group 6-11. In the age-group 11-14, universal enrolment is expected to be achieved by the end of the Sixth Plan. During the Fifth Five Year Plan period, 1974-79, therefore, we propose to adopt vigorous measures such as multiple-entry and part-time education to ensure that the contribution of primary education to adult literacy would be substantially larger. In addition, we are also planning to promote large scale non-formal education among adults.

### **adult education : the wide meaning**

I would like to mention, in this context, that, as early as

1949, a decision was taken to designate 'adult education' as 'social education' because the latter term signified more appropriately the broadened concept of adult education which included civic education, cultural and recreational activities, literacy work, library development, development of folk arts, etc. Social education thus became a comprehensive programme through community action. It was, therefore, closely integrated with the programme of community development blocks and extension services. The programmes of social education included Community Centres, Youth Clubs, Women's Organizations, Adult Literacy Centres, Farmers Groups, Recreation Centres, Literacy Training, etc. The funds for social education were also provided within the community development programme. The programme achieved a measure of success in several areas and in some sectors. But, on the whole, it did not receive sufficient resources and was not supported by adequate organizational and administrative set up.

We have made some major attempts to further widen the concept of adult education and link it to some of our major developmental and productive activities. Illustrative of these efforts are the agricultural extension services aimed at upgrading the farmers' competence in adopting improved agricultural practices; family planning education which was launched on a country-wide basis for promoting a long-term programme of population education and control; mothers' education in child care, nutrition and family life: programmes for the upgrading of

skills of the labour force and the building up of management cadres; promotion of a network of rural libraries to provide a channel for distributing reading materials for literates: the use of mass media, particularly the radio and the television, for adult education programmes in general and for agricultural and family planning education in particular; the highly organised continuing education programmes of the Indian army for its personnel and adult education programmes at the university stage.

In all these various fields, a large number of experiments have been undertaken. The experience gained in them has contributed materially to the enrichment of the programmes of adult education and also helped in reshaping and formulating further programmes. As has been mentioned above, I will not attempt to describe them comprehensively in the short-time at my disposal. I shall, however, say a few words about four of them, namely—

- The Farmers Training and Functional Literacy Project;
- The Polyvalent Adult Education Centre (Urban based);
- Adult Education in the Universities and
- Youth Involvement in Adult Education.

### **the farmers' training and functional literacy project**

This is an inter-ministerial project implemented by the Ministries of Agriculture, Education and Information and Broadcasting in the selected High-Yielding Varieties districts in the country.

The basic idea of the project is that there is a direct correlation between physical and human

ingredients in agriculture, between inputs and the upgrading of human resources. In other words, this is an integrated, multi-faceted approach to the "Green Revolution". The main goal of the scheme is to support and strengthen one of the basic national objectives: self-sufficiency in food, increase in crop production, and growth of agricultural productivity. It is an attempt—and a first one on such a scale—to put educational activities directly in relation to one of the major development purposes. In that sense, in the field of adult education, this was a real *educational innovation*. It means that Functional Literacy is much more than literacy, that it is a method of training for development purposes and a comprehensive non-formal educational programme and an opening to continuing education.

There are three components in the project: (1) *Training of Farmers* (through Farmers' Training Centres, demonstration camps, young farmers groups etc.) (2) *Farm Broadcasting* (strengthened by farm forums, discussion groups etc.) (3) *Functional Literacy Courses* (implemented through a network of 60 groups of farmers in each of about 100 districts all over the country).

An integrated and innovative programme like the Farmers' Training and Functional Literacy needs an efficient administrative and coordinating machinery. Recognising this factor, coordinating committees of representatives of three Ministries concerned have been set up at all levels—national, state and district and sometimes even at the block and village levels.

The implementation of this

project required new teaching and reading materials: some have already been prepared and published, such as primers for Functional Literacy groups in the major languages and supplementary reading materials.

Evaluation studies have shown that the Farmers' Training and Functional Literacy Project is basically a sound concept, that it receives positive public response; that it helps in the search of new educational solutions; that it makes a direct impact on learners and that the farmers made functionally literate more readily accept new agricultural practices. This is not to claim unmitigated success. In a programme which demands highly coordinated effort at various levels from the Centre to the village, many financial and administrative problems are bound to arise. Main problems have been (i) lack of synchronization of effort and methodological approach; (ii) lack of continuity in the organization of orientation and training courses for group leaders; (iii) lack of coordination between quantitative targets and the size of the supporting services; (iv) inadequate feed-back from experience into the programme.<sup>1</sup>

1 A pilot Evaluation Study of Functional Literacy Project in Lucknow District, with the reservations which are necessary in interpreting this type of finding, particularly as it was an ex-post-facto study, led to conclusions like the following. the acquisition of functional literacy helps the farmers in acquiring a higher level of knowledge of agricultural matters; the acquisition of functional literacy creates a desire for more knowledge; higher the literacy ability, higher the adoption of new seeds, fertilizers, implements and insecticides; functional literacy has a role in inducing people to adopt new innovations in agriculture and in changing their\*

In spite of these deficiencies the project is at the present time the largest all-India educational programme for adults. Its results although partial and far short of targets, have proved the validity of the programme, although much greater effort should be put into it, more imagination brought to bear on it, and larger human and material investment continuously channeled into it in order to make it reach its full stature.

Based on the achievement and experience gained, the Fifth Plan proposes to (1) extend this programme to cover a total of 200 districts; (2) reach a target of about 2 million farmers to be brought under the programme (3) extend the project to areas other than those covered under the High Yielding Variety Programmes such as dry land farming, multiple cropping and small and marginal farming areas.

### **polyvalent adult education centre (urban based)**

The polyvalent centre is based on the principle that the adult worker should have continuing access to education and training throughout his working life; that persons should be accepted at the educational level they are, and taken to the level

\*adoption behaviour; the acquisition of functional literacy affects the living habits of the people since literate persons possess more items of material comfort than the illiterates in the control group with the acquisition of functional literacy the respondents get interested in getting further information on agricultural matters and hence they contacted the extension people; functional literacy has a positive relationship with the respondents' exposure to radio; on the other hand, level of social participation of the adults etc.

they can possibly reach; that this education should be functional, integrated and tailor-made to meet each individual's specific needs: and that the programmes should be need-based and problem-oriented. The centre is primarily intended for working adults in urban and industrial areas.

The first such polyvalent centre<sup>2</sup> was set up in the city of Bombay. The centre concentrates its energies and resources on helping those who are economically and educationally underprivileged. The educational and training programmes are diversified<sup>3</sup> and are drawn up on the basis of the specific needs of particular groups of working adults as identified through a survey. They are held at a time and place convenient to learners; and conducted in the language of the learners, whose background education should not be a handicap in taking advantage of this type of action oriented and practical education. The curriculum includes a wide range of related subjects, presented in an

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2 The term 'Polyvalent Adult Education' is used to indicate a multi-faceted approach to adult education and the 'Polyvalent Adult Education Centre' is intended as an organizational structure distinctly for adult purposes to provide a variety of "need-based," courses for the working population.

3 The range of courses offered is very wide: from courses for effective supervision and management to quality control training; from courses for maintenance of departmental workers to auto-loom weaving; from mechanical draftsmen to courses for cobblers; from courses for boiler attendants to home nursing; from conversational and functional English to training of peons; from citizenship training courses to training for secretarial services; etc.

inter-disciplinary way, and aimed at the integrated development of the learners.

The Centre has been able to secure the support of industries, workers, and trade unions, who have provided material support as well as the use of machines and equipment for teaching-learning purposes. It works as an autonomous organisation with financial assistance from the Ministry of Education, Government of India, and technical guidance from the Directorate of Adult Education. It is managed by a committee of members representing industrial undertakings, education, business enterprise, municipal corporation, adult education agency etc. In addition to a nucleus of full-time academic and administrative staff, it draws from the part-time services of competent persons from various fields according to the requirements of each course.

Participating workers have displayed strong motivation, since the courses directly contribute to increase efficiency and better wages. An evaluative study which was conducted by the Tata Institute of Social Sciences, Bombay indicated that the programmes which the Centre offered were worthwhile and would need to be strengthened and improved.

It is proposed to extend this experiment to several more centres in other urban or industrial areas in the course of the next few years.

### **adult education in the universities**

With assistance from the University Grants Commission on a sharing basis, Departments

of Adult and Continuing Education have been established during the last three years in selected universities. Eight universities have initiated the programmes already. This programme will be enlarged in the coming years.

The objective of this scheme is to assist the national literacy programmes by providing training courses for instructors, organising demonstration and functional literacy programmes; extending the benefits of intellectual leadership and facilities for continuing education to the community around; enabling the individual adult to fill the gaps in his intellectual and professional equipment by providing credit and non-credit courses in semi-professional and professional fields; providing opportunities for updating the knowledge and competence of professional and specialised personnel; assisting in the cultural and intellectual enrichment of community life; and undertaking studies and research in adult education with a view to developing it into a discipline in the universities.

Programmes to achieve these objectives are taken up by the Departments after preliminary survey of the needs of the community around the universities. Training and orientation programmes of short and long-term durations are organised. Departments also take up the production of necessary literature.

The Association of University Departments of Adult Education has been recently set up to provide a forum for the exchange of experience and to generally stimulate larger interest among the universities.

### youth involvement in adult education

A large number of students are already members of the National Service Scheme in universities and colleges. The members of the National Service Scheme participate in various constructive and developmental programmes and there is an increasing emphasis on the role of these students in the promotion of adult education programmes. This will be further strengthened in the coming years as it is strongly felt that every young man and woman who has had the privilege and fortune to receive the advantages of higher education at the tax payer's expenses, should repay at least a part of the debt by making a certain number of adults literate and informed.

In recent years, there has been an increasing concern over the needs of non-student youth, which has hitherto been largely neglected. Although one would like to cover the entire adult population, a limitless of age, constraint of resources compel us to make certain hard choices. It has, therefore, been decided to concentrate our immediate efforts on the age-group 15 to 25 for several reasons: the size of this age-group is itself substantial, being about 90 million or about 17 per cent of the total population; more than half of this age-group, i.e., about 47.6 million are totally illiterate; the education and vocational competence of this age-group is widely variable, ranging all the way from totally illiterate to semi-skilled competence; nevertheless, it is this group which is most alert, inquisitive, impressionable and capable of being inspired by ideas

and ideals of service and commitment. They, therefore, offer a rich and potential material for a programme of non-formal education.

To meet the needs of this group, a programme of youth centres has been in operation during the last year. These centres which are called Nehru Yuvak Kendras have been established in 94 districts in the country and it is hoped that as the programme develops, all the districts in the country would be served by a Youth Centre. The primary objective of the centres is to organize various youth activities *for the youth and by the youth*. They attempt to offer facilities for non-formal education for non-student youth as most of them have been deprived of formal education; to facilitate the attainment of some of the basic youth needs; and to give youth opportunities to participate in and to contribute to community development.

A typical Nehru Yuvak Kendra normally organises its activities in five major areas;

- (i) *programme of non-formal education* for illiterate and semi-literate youth, for "drop-outs"; for out-of-school youth; for youngsters growing up and becoming voters; for young wives and future mothers; for youth whose knowledge becomes obsolete in various fields; programmes of science education and for strengthening the scientific spirit; programmes of civic education; etc.
- (ii) *employment facilities, and promotion of self-generating employment* in cooperation with appropriate services; preparation of youth for

existing jobs; training of unemployed youth and job seekers; retraining of educated youth whose skills are not relevant; intensification of new employment facilities or of self-employment possibilities; assistance to youngsters for self generating employment etc.

(iii) *social voluntary services by the youth to the community*: youth service schemes or voluntary youth work in various fields; urban cleanliness; water supply relief works; anti-famine action; vaccination; sanitation measures; irrigation; pump repair, road building; adult education and literacy; information of farmers population etc.

(iv) *entertainment and leisure time activities, and cultural and artistic programmes*: youth participation in performing arts, theatres, singing, dances, music etc.; acquaintance with cultural achievements and values from all parts of the country, conducive to promote national integration; search for and support to talent for folk arts and crafts work; development of competitive sports and games, promotion of physical education, mountaineering, camping, etc.

(v) *Youth participation in community life*: youth involvement in community problems, activities and search of solutions; youth participation in the decision-making process; involvement of youth people managing their own affairs, their educational and recreational facilities, their welfare services, as well as in managing some larger community

services; development of the civic sense and the sense of responsibility; etc.

These five areas are neither exhaustive nor exclusive. As the Centres work among the youth of the community around, it is likely that new needs will be expressed for which new programmes will have to be devised.

It is too early to evaluate either the activities or the impact of Nehru Yuvak Kendras. But, it is obvious that their programmes fit into the general framework of the new approach to educational endeavour and that for its effectiveness, its content should be relevant to the community and that it should lead to democratisation of educational opportunities and attainments.

These are some of the recent trends on practices and experiments which attempt to correlate developmental objectives with educational practices, to put adult education in a position where it can contribute effectively to the achievement of social-economic goals; to integrate the formal and the non-formal educational approaches; to reach out to a large section of adults through educational programmes especially to the deprived groups of the population; to contribute to equalisation of educational opportunities; to make the educational content more relevant to the learner's environment; to maximise the individual's freedom, initiative and participation in the learning process; and to relate education to individual and collective development. From the broader perspective, these also constitute concrete steps towards continuing education as a major parameter of future educational policies.

## a look ahead

We are now entering the period of our Fifth Plan (1974-79) which is crucial for the country's development, important for the further rethinking and reorientation of the education system in general, and for better conceptualisation and development of adult education in particular. The framework for all this rethinking has been set by the planners as follows:

“Removal of poverty and attainment of self-reliance are the two major objectives that the country has set out to accomplish in the Fifth Plan. As necessary corollaries, they require growth, better distribution of incomes, and a very significant step-up in the domestic rate of saving. The pattern of production must lay emphasis on food and other articles of mass consumption. There must be massive employment generation. It is also essential to augment social consumption and investment with a view to maximising the efficiency and productivity of vast numbers as well as to improve the quality of their life. It is necessary to establish liaison between the concerned authorities in industry and agriculture on the one hand, and those who run the educational establishments, on the other. Policies designed to improve distribution of income must include measures which lead to a better distribution of material property, especially land, improve substantially earning from labour through providing extensive opportunities for gainful work and facilitate the process of formation of human capital especially in the deprived sections of our society through equitable sharing of public goods such as education and health.”

I would like to discuss two main issues in this context: (1) What conceptual consequences for adult education flow from these objectives? and (2) What forms will adult education have

to take in order to implement them? I would like to stress four points in this context.

First, non-formal education will receive a recognised status in the whole system of education and will become integrated with formal ways of learning. Opportunities for non-formal education will be offered to learners of all ages and at all stages. If achieved, this important change will be ushered into the very matrix of the educational system, and should serve the educational needs of the working population in general, and the weaker sections in particular. This deeply affects the whole area of adult education, but in fact goes much beyond that.

Secondly, since in the context of a democratic political order, a programme of social, economic and cultural development can be based only on the active participation of an informed people, emphasis has to be placed on programmes with a mass approach. The biggest and most innovative of these programmes is the one aiming at non-formal education, combined with social involvement and participation in the community life and work. The target is to reach about 10 million youth in the age group 15-25. We place emphasis on this section of youth because it represent a largely deprived and neglected group, the majority being those who have dropped out of school, but who nevertheless possess qualities of alertness, idealism, and dynamism, which can be channelised for better self-fulfilment and service.

Thirdly, adult education should be a built-in "component" in various development schemes in the rural areas. The success and impact of many development schemes depend on the level of human resources of those who are both the agents and the beneficiaries of these projects. Therefore, several major developmental projects will make provisions for manpower training and functional literacy. Such a functional ap-

proach is not only required for the economic and production-oriented programmes of agricultural and rural development but would certainly be beneficial to employment schemes, family life development, family planning, sanitation, irrigation and water use, cooperative building, child care, cultural development, social promotion, civic participation, etc. In other words, adult education and adult literacy programmes will be diversified in their nature, linked with environmental needs, developed round the interests of potential clientele groups, differentiated in content and methods, and selective in approach. As will be evident, these programmes will represent an important element of a many-sided educational strategy.

Fourthly, adult education and adult literacy programmes would need to be developed for urban areas as well. Although the great majority of the Indian population is still living, and will for a long time to come live in rural areas, the size of the urban and suburban population, as well as the perspectives and problems stemming from urbanisation also deserve attention from the point of view of education, training and civic participation of urban adults. The current neglect of adult literacy and adult education in cities, towns, factories, industrial areas, slums, etc., should be corrected early.

### **the ultimate objective: life-long education**

In all the thinking about adult education that is now emerging in India, two points seem to stand out; and it is with a statement of these that one may conclude.

The first is the realisation that our exclusive emphasis in the past on the formal system of full-time institutional instruction has to be broadened. Stress is, therefore, being laid on continuing education which will be of direct relevance and use to the individual concerned. This is probably best expressed in the words of

our Prime Minister, Smt. Indira Gandhi, who said:

"No doubt there is need for good institutions, for good schools and colleges and universities, but education is not something that is confined to the class room. One is learning continuously from what is happening to one or around one: from the people with whom one is mixing, from the books one is reading, and even from the events of the world which may take place faraway. And it is this ability to learn which is true education. Whether you are in the factory, whether you are working in the field, education must continue. It is no use your learning something if it is going to be locked up in yourself. It should be used for a purpose and unless you can use it you will not be happy."

But how will this meaningful and continuing education be provided for all? Here an important policy decision taken by Professor S. Nurul Hasan, our Union Minister of Education, is that this task will be attempted, not by creating a separate and parallel system of education, but by modifying the existing formal system itself. He said:

"The existing system of education is almost exclusively formal and relies mainly on full-time institutional instruction at all stages. This leads to several major weaknesses. It can be availed of only by the non-working population, whether children, youth or adults, and the needs of the working population are almost totally neglected. It divides life into two water-tight compartments—being one of full-time education and no work, and the other full-time work and no education, instead of expecting an individual to participate in work and educate himself throughout his life. We have therefore to take immediate steps to create an integrated form of a national educational system in which all three channels of instruction—full-time institutional, part-time institutional and non-institutional self-study—are properly developed at all stages and for all sections of society." From the point of view of organisational simplicity, effectiveness and economy, there cannot be a better alternative.

# urbanisation and adult education

D.P. Nayar

The 1971 Census has once again highlighted the growing phenomenon of urbanisation as an inescapable feature of a developing economy. During the decade 1961-71, whilst the overall population grew by 24.99 per cent the urban population increased by 38 per cent. The increase for towns with a population of 1 lakh and above was 49 per cent. During the four decades 1931-71, the urban population in such towns has increased six-fold, namely, from 9.5 millions in 1931 to 57 millions in 1971 and with a corresponding increase in the number of towns from 35 to 142.<sup>1</sup>

India's predominantly rural character conceals a rapidly accelerating urban growth of dimensions as have led urban India alone to be ranked "among

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<sup>1</sup> Fifth Five Year Plan 1974-79.

<sup>2</sup> Bose, Ashish, *Studies in India's Urbanisation 1901-71*, Institute of Economic Growth, New Delhi, 1973, Tata McGraw Hill Publishing Company Ltd, Delhi, p. 18.

the biggest countries of the world"<sup>2</sup>, Greater Calcutta, if its municipal boundaries are more realistically drawn, is as big as New York or Tokyo. Apart from their size the urban areas command attention by virtue of their being the seat of economic and political power as also of concentrated poverty and squalor, with their valconic possibilities. Two special features of urbanisation in India also need mention. Firstly, the increase in the urban population is more due to the natural increase of urban population itself, underlining the population explosion and the need for family planning, than due to migration. Secondly, the migration where it has taken place, has been largely from the smaller towns, which in consequence have decayed, than directly from the villages. The revival of these small towns and the establishment of new urban centres to ease the pressure of increasing urbanisation is an important element of the strategy of the Fifth Plan<sup>3</sup>, to which adult education has to give its own essential support.

## problems emerging from urbanization

The problems raised by urbanisation are legion. Those whose solution can be assisted through adult education efforts are broadly five: economic; of health, nutrition and family planning; of citizenship training; of recreation; and those pertaining to education and culture. The economic problem pertains to the provision of guidance services and training and placing facilities for those

<sup>3</sup> Draft Fifth Plan, Government of India, Planning Commission, Part II p. 258.

wanting to enter employment, change their jobs or improve their job performance. These services are needed at all levels—from the lowest job sought by a migrant slum dweller to the additional competence sought by those in the senior-most positions. The need for such services is heightened by the large number of jobs available in the urban areas and the need to bring together the prospective employers and employees, desire for lateral and vertical mobility of the labour force, the rapidity of changes in technology and the need for frequent adjustment to it etc.

As regards education in regard to health and related matters, the problem relates to the proper use of very inadequate community services provided; quick and informed response to the hazards to the health of the community in the form of outbreaks of epidemics, selling of uncovered foods etc; knowledge of the nutrition value of different articles so that a balance diet table could be constructed within a very tight family budget; knowledge of family planning; awareness of value of regular habits and exercise; and knowledge of the supreme importance of and use of open spaces, which are the lungs of the cities.

The problems relating to civic training are very arduous and yet very essential. If closely packed human being cannot live as community and are not aware of and do not work for their common interests, they can only explode. As Bulsara<sup>4</sup> says, "the immigrants to the city come with

<sup>4</sup> Bulsara, J.F., *Problems of Rapid Urbanisation in India*, Popular Prakashan, Bombay, 1964. p. 128.

their class, caste, language and religion-wise aggregation or segregation", and "there is no effort at the city end to enlighten" them "in the ways of adjustment to the urban way of life and integration or assimilation in the civic community". And it is this absence of community life and community sense in the cities with their size, their speed, their heterogeneity, their vast inequalities, their temptations and exploitation that breed violence and crime; to make the cities not only the seats of economic and political power but also the potential spots of volcanic eruption. Adult education can lend a helping hand in maintaining peace and promoting growth to enlightened political, economic and social policies. The citizen has to be trained in his duties as a householder, as a member of his ward and cooperative, as a member of the city and as a member of the country—in ever-widening circles of responsibility.

As regards recreation, the majority of the theatres, cinemas, clubs, games and sports etc. are beyond the means of the average citizen. And yet the pressure of his life badly needs such outlets and relief. Adult education has to fill this void through joint governmental and community action by providing community centres, open spaces and youth centres, libraries, etc. Such activities should make life, especially in the small town, more attractive and thereby support the growth strategy of revival and establishment of small towns.

The need for educational facilities outside the regular educational system is also an urgent necessity for people want-

ing to improve their prospects, utilise their leisure profitably and satisfy and diversify their interests. These needs vary with different groups and have to be satisfied in different ways, depending upon their circumstances. In any consideration of educational needs in a country like India literacy has to occupy a prominent place; and in order to click the programme has to be one of functional literacy. Educational programmes require a large sized programme of production of books on various subjects and suiting the various levels of competence of their clientele.

### programmes in india—a review

Adult education in India began much before Independence in 1947. The work was largely confined to adult literacy and provision of libraries as a follow-up. The cultural agencies added a recreational dimension to this programme, though the two streams proceeded side by side as distinct entities. Gurudev Tagore and Gandhiji enlarged the concept of adult education by bringing in vocational training as well and developmentally oriented adult education achieved some brilliant successes<sup>5</sup>. But the work of these leaders was confined only to rural areas. Moreover, their impact on the general current of adult education was hardly felt. The great day for adult literacy, with which adult education was synonymous at the time, came with the assumption of power in the provinces by the Congress. Mass campaigns were launched encompassing towns and the country side.

<sup>5</sup> Nayar, D.P., Building for Peace. Navjivan Karyalya, Ahmedabad—14.

The net result of this movement however, was not significant. It was realised that literacy by itself did not provide adequate motivation for adults: and so after Independence the concept of adult education was widened to include citizenship training, health education, recreation and occupational training. To indicate this enlarged concept the programme was called Social Education. Lately the idea has been gaining ground that adult education should include all activities of governmental and non-governmental agencies, outside the regular educational system, which seek to better equip the adult to meet his own varied needs by his own efforts; and these agencies should improve the educational content of their programmes to increase their effectiveness through better response from the intended beneficiaries/producers that the increased educational content will encourage. This concept has been embodied in the Fifth Plan.

### voluntary organisations

We may follow this broad review by a more detailed account of our significant experiences. We may begin with our experience of voluntary organisations. Prior to Independence they were practically the only agency in this field and the dedication of their workers achieved appreciable results against heavy odds. After Independence and with the advent of planning it became a definite governmental policy to encourage voluntary organisations. This, however, led to a mushroom growth of such organisations few of which had their roots among the masses and were motivated by genuine public concern. Government grants very often

became a means of extending political patronage. It is, therefore, necessary to screen voluntary organisations and separate grain from the chaff. Such organisations as are deserving of support should be assisted in every way. These organisations are especially fitted for pilot project, research and investigation work; literature production; and work in extremely difficult areas, where a high degree of dedication is called for. They can also be effective as aids to governmental agencies for purposes of establishing liaison with the people and mobilising local support. They are not likely to have the organisation to implement a mass programme themselves. Each organisation should be entrusted with specific work, keeping in view its special competence, and assisted fully to do it well. The special need of such organisation is to building their dedicated workers into technically competent people. They also need assistance in project formulation and evaluation as well as administrative matters. Government could enlist the cooperation of technical and academic bodies like the schools of social work and its own training and research institution for building up the workers of voluntary organisations. The State could also help in publicising outstanding work done by these agencies.

### **industrial workers**

Another area where we have built up some experience is the education of industrial workers. With increasing industrialisation, need was felt for educating industrial workers about their roles and responsibilities in society, industry and their union so that

genuine trade union leadership could emerge from among themselves. For the purpose, the Ministry of Labour set up a Central Board of Workers' Education in 1956, which has been organising training of education officers, trade union officials and worker teachers, and holding classes for the rank and file of workers. The methods used are largely audio visual. The Board has trained over 1.7 million workers from over 5,000 enterprises. These courses have generated a general consciousness in the working class and added to their understanding of the trade union movement. The reaction of the employers and union leaders has been mixed as was to be expected. While some have appreciated the programme and cooperated with the government, others have vehemently opposed it — trade union leaders who see in it a potential threat to their leadership, and the employers, who feel that the worker becomes extra conscious of his rights.

The Ministry of Education, side by side, carried on an experiment of broad-based social education of the workers with the object of stimulating a desire for knowledge in the working class, providing facilities for general education of the workers with the object of stimulating a desire for knowledge in the working class, providing facilities for general education, arousing a sense of social and civic responsibility and providing wholesome recreation. Two institutions were set up for the purpose — that at Indore in 1960 and that at Nagpur in 1968 — which were evaluated in 1970. The main lesson was that these institutes

should base their programmes on clear identification of the needs of the workers and should also cater to the needs of other than industrial workers.

Other experiments in this direction were the opening of Centres—variously known as Social Education Centres, Community Centres, Labour Welfare Centres—in urban or industrial complexes. These centres were expected to provide a wide spectrum of activities of educational, cultural and recreational nature for men, women and even children. Adult education including literacy, libraries, reading rooms and craft classes was to be the basic component of the programme. In actual practice, however, their main emphasis very often remained only on cultural and recreational activities.

Vocational training was provided at a number of industrial institutes in the evenings. It was, however, found that workers at the end of the day did not have the energy to go and learn at a distant place and most of the employers had either no resources or were unwilling to invest them in organising training for workers.

### **polyvalent centres**

Out of these various approaches has emerged polyvalent approach and the polyvalent centre, which seem to hold considerable promise. A polyvalent centre was set up in 1967. The object was to provide courses on the basis of felt needs for various groups of the urban population. The courses would, however, be so given that they meet the total needs of the adult in an integrated fashion. Being need

based they could aim at self-support. They were to enlist the cooperation not only of the workers but also of their employers. The courses were to be organised at places and time convenient to the participants. The Centre was to have a core of full-time staff but the large number of its teachers were to be part-time, largely drawn from the establishments whose workers were to benefit from the programmes. The expenditure on buildings and equipment for the Centre was to be kept to the minimum. The courses were organised at different places, such as factory premises, school buildings, community centres, welfare centres, trade union buildings and other places which were made available on rent free basis. The programme was evaluated after a year. In spite of the difficulties which a new approach of this type was bound to encounter in the beginning, the evaluation report said that the experiment had met with moderate success in achieving its aims. The report also suggested, ways by which the Centre could increase its effectiveness. These were to involve the employers more effectively by taking up courses at their initiative, by drawing up the content in consultation with them, etc., draw up programmes after a very careful assessment of the felt needs of the participants; and ensure that while the integrated character of the approach to the needs of the individual and the group might be maintained, the mixture of the felt need and the other needs to be met should be judicious so that the focus on the felt needs was not disturbed. The Centre has tried to improve its

programmes both qualitatively and quantitatively. There has been general appreciation of these courses as shown by the great demand for repeating the courses or developing new ones. The enthusiasm generated has led the Government to decide to have a net work of such centres established in various cities and industrial towns in the country during the Fifth Five Year Plan.

The following lessons of the Polyvalent Centre at Bombay may be highlighted :

(1) The programmes must be based on felt needs identified for a cohesive group through a proper survey. The specific need must be linked and integrated with other needs of the group, which may be half felt but nonetheless real. General education will need to be integrated with vocational education in such a way that it does not disturb the focus on vocational education but rather enriches and enlarges it.

(2) In the case of vocational education, it would be necessary and advantageous to involve the employers fully so as to take advantage of their appreciation of the needs of the workers as employees and also to draw upon their resources for running the course.

(3) Competently drawn courses and enlightened methods of teaching are required to retain the interest of the adult learner.

(4) As programmes of adult education have to be very large-sized, the per capita cost must be kept down by employing only part-time teachers to help a small core of full-time workers and by

saving on buildings, equipment etc. by drawing on the resources of the community.

(5) Flexibility has to be the key-note of the programme as it has to be closely related to the needs of each individual group.

### out-of-school education

Another important line of development has been the provision of educational facilities outside the regular school system but linked to it. At the base are adult schools which enable well-motivated adults to take their primary or middle and even secondary school education in a much shorter time than children take. In the experiment at Delhi, it was found that adults could cover in two years what the children took five years to complete. This very idea was used by the Central Social Welfare Board in their scheme of Condensed Courses of Education for Adult Women. The main objectives of the schemes are to open employment opportunities to a large number of deserving and needy women and, secondly, to create a band of competent trained workers required to man various development projects in the shortest possible time. Under this scheme, women in the age-group 18-30, who have had some schooling, are prepared for middle school and matriculation examinations within a period of two years. Since the inception of the scheme in 1958, and up to March 1972, 1314 courses were organised and about 24,000 women benefitted from these courses. The women who complete these courses find employment as social workers, teachers, nurses, midwife, family planning workers etc.

Correspondence courses have been organised at the secondary and university stages to enable those who are not able to join full-time institutions to continue their education. For example, at Delhi enrolment in the correspondence courses preparing students for the school leaving certificate increased from 881 in 1968-69 to 5630 in 1970-71, and significantly enough, the pass percentage was as high as 68 per cent in the latter year, which is above the All India average. Nearly a dozen universities are at present organising correspondence courses for university students. The plan is now to establish an 'open' university in extension of this idea.

Apart from organising correspondence courses a number of universities have set up adult/continuing education departments with assistance from the University Grants Commission. The types of programmes for which assistance is given are professional courses, courses in leadership and employment skill, general purpose courses, programmes for the urban community, cultural activities, training of personnel, research in adult education etc. Under the national service scheme, universities have initiated a number of projects for promoting adult education activities by their staff and students and have adopted areas in their neighbourhood for the purpose of spreading literacy and adult education among the non-student youth in particular.

### **libraries services**

As a necessary support to the programmes of Adult Education both in the rural and urban areas,

vigorous efforts are needed for development of libraries services. An important step in this direction has been the enactment of Public Library Legislation in four States, namely Tamil Nadu, Andhra Pradesh, Maharashtra and Mysore. Other States, which at present, have comprehensive grant-in-aid rules for establishing such libraries at different levels, are also contemplating to enact Public Library Legislation, largely on the lines of the model Bill for Public Library Acts drawn up by the Working Group on Libraries appointed by the Planning Commission.

A unique event in the development of public libraries in the country is the development of the Delhi Public Library started as a pilot experiment to reach a metropolitan city population effectively, which now caters to the needs of the reading public in the Union Territory of Delhi with its branch libraries and also the mobile library vans. During 1973-74 about 36,000 adults participated in various activities such as lectures, discussions, dramas, film shows and television viewing programmes organised by the Library. The Library is rendering its services at more than 91 points in the Union Territory of Delhi.

A recent development in the field of library services is the setting up of the Raja Ram Mohan Roy Library Foundation. The main objective of the Foundation is to strengthen and promote the establishment of a country-wide net-work of libraries through which it will be possible to carry to all the sections of the people, new information, new ideas and new knowledge. The Foundation

which came into existence in May 1972 has in its first phase taken up the programme of strengthening district libraries, including those at the Nehru Youth Centres. The total number of libraries being assisted is 500.

### **in-service training of workers**

Another important area of adult education is the in-service training of workers of all types and levels. Most public sector enterprises and big enterprises in the private sector have training programmes for their own workers, supervisors and senior executives. Under the Apprenticeship Act they have also to train a certain number of others—including raw matriculates, students from the Industrial Training Institutes and graduate and diploma holder engineers. The apprenticeship scheme, however, is not working very satisfactorily as industry takes very limited interest in these 'outsiders'. Government departments are also increasingly taking to cadre building. A number of institutions—the National Institute of Community Development, Hyderabad, the Institute of Public Administration, Delhi, National Staff College under the Ministry of Education and Social Welfare etc. have been set up for the purpose. An important development was the establishment of the National Productivity Council in 1958 for spreading productivity consciousness at all levels of the national life, providing productivity service in the country by way of training, consultancy and research activities on a continuous basis etc. It has six regional directorates at important centres and 47 local productivity councils.

# motivation and adult education

J. Veeraraghavan

Education is the process through which human beings acquire understanding and mastery over the environment. It is a precondition, though perhaps not sufficient, for civilized human existence. In relatively static societies, it was possible to impart all the needed skills, knowledge and attitudes through education over a fixed period of time. Traditionally this was how education was envisaged both in the East and the West—a period of education followed by a period of work. In modern times however, with the dynamic changes that constantly occur in society and the continuing increase in knowledge, no education given is adequate for a life time. Human beings have to be constantly renewing themselves through educational processes. The concept of lifelong education has been developed mainly to meet these requirements. This concept has, however, acquired a new dimension and new urgency owing to the many new problems now facing the world. Life-long education is now the main answer which mankind has at its disposal to meet the new challenges before it. Some of these challenges are :

- (a) The problem of inadequate food supplies in the face of increasing world population.
- (b) The problem of inadequate energy and mineral resources in relation to the requirements of mankind.
- (c) The pollution and destruction of human environment sometimes deliberately and more often unintentionally.

In this paper, it is proposed to examine the role of adult education and the contribution it can make to the solution of the challenges referred to above as they apply in the developing countries, with its special problems of economic under-development and over-population. The main task in this area is of course "Development" and this requires.

- (1) improving the productivity and efficiency of every individual;
- (2) provision of greater employment opportunities and removal of poverty through economic development;
- (3) increase in food supply to meet the requirements of growing population;
- (4) provision of improved health and educational facilities to the people; and
- (5) effective measures to control growth of population.

These, of course, are not the only tasks. There are other tasks to ensure an adequate quality of life and to provide opportunities for self-fulfilment and creative use of leisure. Adult Education can and ought to make a significant contribution in each of these areas.

## outlook for development

Over the last twenty-five years several projects have been

undertaken for the economic and social development of the country. These include industrialisation, irrigation, power, transport, community development, health, education and family planning programmes. As a result of these efforts, there has been a phenomenal growth in agricultural and industrial production and in practically every sector. Despite these remarkable achievements over what in historical terms is but a short span of time, poverty still remains a problem and very large masses of people are still unable to obtain what is considered to be a "minimum" standard of life.

Consequently, it has become more necessary than ever to increase production of all essential goods at a rate which will be higher than the rate of increase in population. The achievement in the next twenty-five years in terms of economic growth will have to outstrip the achievements in the last twenty five years. Challenging as this task is, it is by no means impossible provided the vast human resources are effectively mobilised.

## literacy and agricultural production

There are some, however, who are of the opinion that in view of the availability of modern audio-visual and other media for providing information, it would be sufficient to provide the basic facilities to the farmers such as, water, power, fertilizers, seeds, etc. and literacy and adult education are only marginal inputs for increasing agricultural production. Such a view can prove to be extremely shortsighted. There is no doubt in every community a certain percentage of progres-

Paper presented at the Commonwealth Regional Seminar on Adult Education and National Development held at New Delhi in March 1974. The author is Director, Ministry of Education and Social Welfare, Govt. of India.

sive and educated farmers who adopt innovative practices rather readily. But if substantial increases in agricultural production are required, it would be necessary to ensure that all farmers participate in the development process and not only the limited number of progressive and educated farmers. In order to reach the large masses of people who are illiterate or semi-literate, an effective programme of adult education linked to the requirements of farmers is a necessary part of any strategy for increased agricultural production. The educational input is as important as the other inputs and many ways more important and significant from the long term point of view. For example, fertilizers, might be in short supply, rains might fail, agricultural research might not produce suitable new varieties, but if the farmers have been 'educated' in the true sense of the word, they would be better able to meet the challenges that arise from such difficult situations. If our goal is to make farming community self-reliant, self-sufficient i.e. capable of meeting any eventuality without detriment to agricultural production, we have no option but to make use of adult education in a more effective manner than hitherto.

Recognising the importance of effective adult education for increase in agricultural production, the Government of India have launched a programme of Farmers' Training and Functional Literacy in areas where the high yielding varieties of crops are grown. The programme was initiated in 1968 and the Ministries of Agriculture, Education and Information & Broadcasting collaborate in this programme.

The Ministry of Agriculture provides training for farmers and organises field demonstrations. The Ministry of Information provides farm broadcasts for the benefit of participant farmers. The Ministry of Education provides functional literacy to the farmers. The programme of functional literacy has so far covered about 3,00,000 farmers.

### **impact of functional literacy**

An evaluation study\* of the impact of functional literacy programme, undertaken in the district of Lucknow in 1970, has conclusively established the utility of the functional literacy programme in contributing to agricultural production. Three batches of farmers who had gone through the functional literacy programme were studied in comparison with the control group of farmers, who were similarly situated in all other respects, but did not have the benefit of the functional literacy programme. Some of the significant conclusions arising from the study were as under:

- (i) The farmers trained in the functional literacy programme had much greater knowledge about agricultural innovations. (The 't' value was significant at 1% level for all the three batches.)
- (ii) The knowledge score of batches 1 and 2 who had completed functional literacy training earlier was much higher than that of batch three. This showed that the acquisition of functional literacy created a

\*Farmers Training and Functional Literacy—A pilot evaluation study (1972) Directorate of Adult Education, New Delhi

desire for more knowledge and activated self learning process by the farmers.

- (iii) Literacy achievement was directly correlated with the knowledge of high yielding varieties of wheat and its related practices.
- (iv) Unlike in the case of wheat (which was a locally grown crop), the knowledge regarding Jawar (which was not grown in the area) was very much less. But even here the functional literacy group had much better knowledge than the control group.

Mere knowledge of agricultural practices is of course not an adequate test of the efficacy of the functional literacy programme. Knowledge must lead to action. Adoption of High Yielding Varieties and improved practices were, therefore, compared. In comparing this, the 3 experimental groups were studied in relation to the control group in respect of a) awareness, b) interest, c) trial and d) adoption. It was seen that in regard to all the four factors the experimental group was much superior to the control group.

The Lucknow study also evaluated the changes in the attitude on the part of the farmers. It was seen that the attitude of the groups which had undergone functional literacy training was more favourable towards adult education. This showed that the group had realised the utility of literacy and adult education in farming. Further, it was seen that the attitude of the respondents towards adult literacy programmes was not in any way affected by good or poor achievements in literacy. This meant that even those who did not

achieve much success in becoming literate understood the importance of adult education and adult literacy as compared to those who had not the benefit of functional literacy programmes.

It was further observed that contact with extension agencies and exposure to radio and newspapers was much greater in the case of those who had undergone functional literacy training than in the control group. On the other hand, in regard to the social participation in various institutions like, village cooperatives, youth groups, political parties etc. no significant difference was noticed between the control and experimental groups.

The Lucknow study has established not only the utility of the functional literacy programme; it has also shown us the process by which the functional literacy becomes useful. It has shown that the investments are made in farmers training, agricultural extension, radio broadcasting and other measures can lead to greater results provided the farmers are made functionally literate.

The Lucknow study has been quoted extensively on account of its scientific design and detailed information. There are several other studies also which more or less indicate similar results. The results from these studies are what one would expect on a *a priori* basis. Adoption of improved farming practices is not a mere matter of technical competence or availability of facilities and resources. It requires basically an attitude of mind. It requires that the farmers be motivated to observe his problems and opportunities for solving these problems. It requires a desire on his part to improve his

production and to add to his own welfare and to that of his community. It also requires a certain measure of conceptual and cognitive skills. There is enough empirical evidence, apart from logical premises, which conclusively establish that the returns on investment in agriculture could be increased many-fold provided there is an adequate programme of functional literacy and informal education.

### family planning

It is not only in the field of agriculture that we observe such results. Family planning is another area where evaluative studies have established the importance of literacy and education. For instance, The All India Survey Report on Family Planning Practices in India by the Operations Research Group, Baroda (1971) has, inter alia, indicated the following significant results :

#### (i) disapproval of birth control measures

Educational level of wife	Percentage of husbands and wives disapproving birth control measures
(i) Illiterate	40.5
(ii) Gone to primary school	23.0
(iii) Gone to secondary school	14.3
(iv) Gone to college	6.4
(v) All levels	40.7

Disapproval was associated with lack of knowledge of family planning methods, non exposure to media and lack of inter personal communication. Also it was seen that those who disapproved birth

control measures were not able to express their opinion on several attitudinal questions as compared to the approvers.

(i) *A priori* consideration would suggest that family planning practices would be increasingly adopted with increase in the age of wife. The Baroda study, however, did not find any such increase. The reason for this is inferred by the Baroda study as consisting in the fact that literacy in older couples was lower as compared to younger couples.

(ii) The Baroda study also confirmed that level of family planning at each educational level of husband when the wife was illiterate was almost identical to the practices at the corresponding educational level of wife when the husband was illiterate. Further, the study observed that when both spouses were educated the practice of family planning was more than what would be expected by mathematical addition of the level of practices corresponding to their educational levels. For example, when the husband had a primary level of education, the family planning practice increased by 5.7 per cent as compared to when he was illiterate. Similarly, the family planning practice increased by 4.6 per cent when the wife had gone to the primary school as compared when she was illiterate. When both husband and wife had been to primary school one would expect that the family planning practice would increase 5.7 + 4.6 or 10.3 per cent as compared to when

both are illiterate. However, the actual increase observed was 15.9 per cent. It is important to emphasise this conclusion repeatedly as those who are prepared to invest sizeable sums of money on family planning programmes should draw the obvious conclusion that it would be well worth their while to spend adequately on functional literacy and informal education in relation to family planning. By doing so they can improve the adoption of family planning practices from a mere 5.0 per cent to 15.0 per cent level. Even if these precise magnitudes are not achieved in practice, the differential impact of any functional literacy programme would be every substantial. Ignoring the functional literacy component could thus result in tremendous waste of resources in terms of the efficacy of the programme.

There are several other studies in India in different fields, such as on health and nutrition. But enough has been said to prove the importance of functional literacy and informal education. The studies only affirm what one should expect on logical considerations. The provision of various facilities and extension services whether it is for agricultural improvement or family planning or health and nutrition, or any other development programme, can make a certain impact even without functional literacy programmes. But if the impact is to reach all sections of the community and the full benefits of the developmental efforts are to be realised, this can be achieved only through an educational effort

which aims at motivating the individuals concerned and providing them with the requisite competencies. It is the failure to take fully into account this aspect of demand creation which has often been responsible in the past for the lack of full realisation of anticipated benefits from various programmes. As the infrastructure for development has already been created in many sectors and regions, and as these facilities can be optimally utilised through sufficient demand creation, adult education offers a unique opportunity for significant economic development in the coming decade.

### **motivation**

The question of motivation can be looked at from many different angles. Psychologists have constructed a pyramid of individual needs starting from basic biological needs, followed by social needs of status, wealth, affection and security and culminating in the needs of self-fulfilment. Each individual could, according to this theory, be motivated with reference to that segment of need which is upper most in his particular context. Economists and administrators have often emphasised the monetary and the material incentives needed for motivation. Sociologists have ascribed motivation to certain fundamental socio-cultural practices including child rearing practices and the presence and absence of "need for achievement" and other drives. Anthropologists have tried to look for the "messages" which operate the system and have often found that the traditional societies are powerfully governed by the pattern of their own messages and the messages which are received from the modernising elite groups are often weak, tempo-

rary, and ineffective.

These many ways of looking at motivation for development only indicate the complexity of the problem. At the core of any change lies the individual and for any effective progress, the individual needs to be changed. Education aims precisely to do this job, and adult education attempts to do this for those groups of adults who have not had the benefit of formal schooling or those who had such benefits but still require education to meet the need of changing society. The task of adult education in the context of National Development is, therefore, to devise an adequate and effective system of nonformal education to induce the requisite behavioural change. Adult educators must identify region by region and group by group various population groups for whom their programmes are intended. Obviously, there would be several large rural groups but the urban population even in a country like India is by no means small. Population groups should also be classified in accordance with their requirements and occupations. The present and future roles and subroles of each of these groups should be clearly identified and modules of skills, attitudes and values which are required to be provided to enable the adequate performance of these roles should be developed. The professional adult educators must evolve appropriate curricula which are locally relevant and the most suitable technologies for realising the educational objectives. The adult educators must, finally, identify the institutions and services in society, which can provide these modules of skills, attitudes and values. Considering that the resources are limited the adult educators must utilise to the utmost the existing institutions and all available educated personnel in order to provide an adequate programme of education for the adults especially the young adults on whom squarely rests the responsibility for change and development.

# staffing in adult education

Anil Bordia

ther integrated with life and work.

- (2) Satisfactory programmes of adult and non-formal education will be organised for a very substantial member in age-group 15-25, being the most important group in the national life.
- (3) Adult education, if properly designed and efficiently implemented, can make it possible to derive full fruit of the development programmes. It is, therefore, necessary to make adult education an in-built component in all development schemes for the successful implementation of which manpower training is imperative.

## strategy for adult education

The conceptual consequences for adult education, of the basic aims and objectives of national planning in India as elaborated upon by Shahid Alikhan in the position paper presented on behalf of the Ministry of Education are :

- (1) Education is viewed as a life-long process and the importance of non-formal education is recognised. Non-formal education is not viewed in isolation, but integrated with formal and institutional education, integrated also in the context of different stages of education and fur-

- (4) Increasing urbanisation being a factor in the process of development, a systematic programme of adult education for the urban groups is envisaged.

In the context of this strategy of adult education, an attempt is being made to identify a few major programmes and the main agencies which will implement them and to see the implications in regard to staffing.

## mass education for 15-25 age-group

What is the size of this age-group? Consider the following figures :

TABLE  
Size of the 15-25 age-group vis-a-vis total population

(figures in hundreds pertaining to 1971)

Classification	Total	Male	Female	Rural	Urban
Population in the age-group 15-25	905,983	466,893	439,090	691,560	214,423
Total population	5,454,958	3,824,223	2,637,310	4,368,920	1,086,038

Paper presented at the Commonwealth Regional Seminar on Adult Education and National Development held at New Delhi in March 1974. The author is Director of Industries, Government of Rajasthan, Jaipur and Editor of the Indian Journal of Adult Education.

Thus, this age-group comprises nearly one-sixth of the total population. Further analysis of this age-group reveals that about 60% are out-of-school illiterate persons. This includes the category who may be able to identify simple written words but cannot use their literacy in any fruitful manner and, therefore, have been treated as illiterate. The next category is of the drop-outs, being 28%. This includes drop-outs who did not complete primary education as well as those who pursued post-primary education but did not complete their education. Finally, there is the category of pupils in school being 12% (all types of formal educational institutions).

A plan which attempts to cover a population of nearly 10 millions has to improve special staffing arrangements. What seems almost inescapable is to motivate and use the drop-outs who completed education upto a reasonable level, say secondary, and such among the in-school group who will attain a similar level. It can be assuming that together between these two categories who have 10% of the entire population of the age-group, or approximately about one million persons. These are persons who have attained a reasonable level of education and who can be called upon to serve as "peer-groups" for an educational programme in their own age-group.

The concept of a peer-group needs to be underscored. In one of his addresses, Julius K. Nyerere, President of Tanzania, said :

But as well as being student, we all have to be willing to be teachers. We have to be willing to teach whatever skills we have by whatever

methods we can by demonstration and example, by discussion, by answering questions, or by formal classroom work. If we all play our part, both as students and teachers, we shall really make some progress. I would like to remind you of the promise of TANU members : "I shall educate myself to the best of my ability and use my education for the benefit of all."

An effort to convey the educational message to this vast age-group will call for extraordinary measures. Most of the educated persons in this age-group may have to work as volunteers. The National Service Scheme will have a role to play. Primarily, the role of NSS volunteers will be to identify the persons who can serve as peer-groups, to train them and to provide them necessary help and direction.

What are the implications of this for staffing ? Broadly speaking, categories of persons who will be directly involved in this programme will be : (a) the educated youth who will serve as peer-group, including NSS volunteers, Shanti Sena organisers, Sanchalaks of Yuvak Mandals etc.; (b) persons whose full-time responsibility is to work among the youth, this would include the Nehru Yuvak Kendras, NSS Coordinators etc.; (c) technical persons who will take care of the content of the educational programme including those who will organise agricultural polytechnics, Gramik Vidyeeths and other experts ; (d) leadership groups who will work in a voluntary capacity, whether drawn from the Panchayati Raj institutions, political parties, retired civil or military services personnel and others ; (e) Administrative functionaries at the panchayat, block, district, State and Central levels.

## functional literacy programme

The Working Group on Adult and Out-of-School Education appointed by the Planning Commission as a preparatory measure for drafting of the Fifth Five Year Plan has made a most significant report on the role of adult education in national development. Its recommendation that earmarked provision be made for adult education in developmental projects is now being generally accepted at policy making levels. Farmer' functional literacy programme is one of the best illustrations of the manner in which a built-in component can be provided.

The farmers functional literacy programme aims at increased agricultural production by improving the efficiency of the farmer with reference to the High Yield-Varieties Programme and its co-llary inputs like fertilizers, plant protection chemicals etc. Such cultivation requires carefully planned farm operations and adoption of scientific practices. Therefore, training of farmers is considered an essential input in this programme. It provides for well organised functional literacy programme which would impart not only literacy skills but also agricultural information which could be immediately used by them. An important component of the project is the Farm Radio Broadcasting which attempts to harness the media of radio for the objectives of the HYV Programme. Naturally, implementation of this project calls for joint effort by the Education, Agriculture and Information & Broadcasting Ministries.

During the Fourth Five Year Plan the Farmers' Functional Literacy programme covered 100 districts and envisaged a coverage of one million persons (the actual achievement was between 200,000 to 300,000). In the Fifth Plan, the number of districts to be covered under this scheme will be 200 and each project will organise 90 Farmers' Functional Literacy Centres as against 60 at present. The target has also been doubled (to 2000,000).

In relation to staffing, this scheme will have to cover the following categories:—

- (a) The functional literacy teacher.
- (b) Field supervisors.
- (c) Agricultural extension and technical staff which imparts technical know-how and which is responsible for post-literacy follow-up.
- (d) Persons connected with Farm Radio Broadcasting.
- (e) Administrative functionaries at all levels.

### communications satellite

Teaching and learning being separate acts, invested in separate persons, communication between teacher and learner can take place across distances. Any person, no matter how poor and residing at remote place, how socially disadvantaged and how educationally unprepared, can be in communication with the teacher, if there is effective communication system. Satellite communication will become within a few years one of the most important factors in Indian society in

general and education in particular. Perhaps, the most important question before the educator is whether we would be able to use this media for worthwhile programmes of education and technological development. It is quite possible that our inactivity and passive acquiescence will place this most important media in the hands of the vulgar entertainer and those interested in feeding the people with placibos. Although we are already late, it is still possible to fully grasp the importance and revolutionary potential of communication satellite and to use it wisely and effectively.

While planning for use of satellite communication system for adult education one may have to consider staffing in respect of:

- (a) the programmers, including persons responsible for selection of programmes, persons who will direct the programmes and persons who will appear in them.
- (b) The organisers of the teleclubs and those responsible for making other listening arrangements, including members of Panchayat, school teachers, factory management etc.
- (c) Technicians, right from those responsible for telecasting to repairers.
- (d) Government functionaries at all levels concerned with the use of this communication media.

### implications for staffing

Decision in regard to the staffing will have to be taken in respect of each programme or

scheme separately. Some general observations may, however, be in order:

#### *identification and recruitment:*

The staff concerned with adult education programmes will, of necessity, be full-time as well as part-time, paid as well as voluntary. A system of identification and recruitment will have to be worked out. For example, in farming the peer-groups for organising mass programmes for 15-25 age-groups, the work of identification will have to be entrusted to local leadership, field government functionaries as well as youth organisers. The identification of the latter will, therefore, perhaps be of primary importance.

The qualifications for recruitment will have to be devised with skill, imagination and vision. In some cases dominant consideration will be technical background and training, but in others, it would be commitment to the cause of adult education.

*Conditions of work:* In keeping with the policy of integration of adult education programmes with other connected programmes, particularly education, it might be advisable not to create a large isolated cadre but to make it a part of the general cadres. An exception will naturally have to be made where there is need for professionals and specialists.

*Training:* Like all other aspects of staffing, training will also have to be related to the programme needs. A few general categories could perhaps be described:

- (i) *Part-time workers:* In each of the three important

schemes cited above, there is a large component of persons who will do adult education work on part-time basis. It is difficult to think of any large field programme which would not have a substantial number of part-time adult educators. The training of such persons will have to be adequate. The emphasis in this training should be on adult psychology, and educational methodology most suited for the programme concerned.

(ii) *Participants and collaborators* : There would be persons who will not work even on regular part-time basis but will contribute to the programme by demonstrating their commitment to it and by securing the involvement of all persons under their influence. The most important illustrations in this category are the political leaders and persons associated with Panchayati Raj institutions. The training programmes for this category will aim at securing their commitment to adult education.

(iii) *Specialists and technical personnel* : In almost every programme there will be emphasis on diversification, persons involved in adult education will be drawn from different professions, specialities, socio-political environment etc. Or there may be technical personnel needing orientation. For example, in satellite communication training will have to be designed for a large category of technical personnel, from repair mistry who would ensure that all

sets are in working order to senior engineers responsible for organising the satellite communication system in such a manner that it has the best communication results. Moreover, in most programmes of adult education, content of the course will be important and specialists will need to be suitably oriented for adult education work.

(iv) *Primary level adult educator* :

Being the full-time field worker, the training of this category is of the greatest importance. It is this person, the person in charge of a tele-club, a Coordinator of the Nehru Yuvak Kendra or Functional Literacy Instructor on whom successful implementation of a programme depends. Evaluation of almost all programmes conducted so far has shown that inadequate training of the primary adult educator was one of the main factors in unsatisfactory achievement.

(v) *Supervisory staff and trainers of primary level workers* : Proper training of the trainers is the key to successful training of the primary level workers. Moreover, even the well-trained primary level workers tend to show low achievements in the absence of supervision. Social Education Organisers' Training Centres having been abolished it might become necessary to set up one or more training centres exclusively for this category of personnel.

(vi) *Government functionaries* : The concept of life-long continuing education implies

that even the most highly educated persons should make the necessary effort to participate in a learning process to renew their knowledge and to up-date their information. It may be only a seminar or an educational tour, but the senior functionaries in the State and Central Government should expose themselves to new ideas and developments. Further, it is almost certain that most persons connected with implementation of educational programmes are not fully acquainted with the implications of the new strategy of adult education adopted by the Government of India. The National Institute of Educational Planning and Administration is well-equipped to impart such training. State Institutes of Public Administration, universities and other institutions can also contribute to the training of the administrative personnel.

(vii) *Full-time professionals* : Adult education is fast becoming a profession and a discipline and some universities in India offer courses for such professionals. There is also the Directorate of Adult Education which is equipped to organise courses for such persons.

In conclusion it may be stated that although the need to draw up good imaginative programmes cannot be over-emphasised, their effective implementation will depend on visualising the staffing and training requirements and on taking steps to ensure that identification, recruitment and training is adequate for the needs.

# nehru literacy awards 1972 and 1973

## presentation speech

by

G.S. Pathak

I thank the Indian Adult Education Association for inviting me to present the Nehru Literacy Awards for the years 1972 and 1973 to Shri S. N. Maitra and Shri R. M. Chetsingh for their outstanding services in the field of adult education. I have great pleasure in congratulating them on the well merited recognition which they have earned and wish them many more years of service in the noble cause of education.

It is well known that the right of everyone to education was proclaimed by the Universal Declaration of Human Rights of 1948. It is a right guaranteed in many countries including our own. But it is a sad reflection that according to UNESCO reports this right remains a dead letter for more than 700 million adult illiterates in the world. I agree with Mr. Rene Maheu, Director-General of UNESCO

that illiteracy endangers the principle of equality of men because it reduces the illiterate section of society to an inferior economic, social and political position. It is recognised that an illiterate is completely at the mercy of others and for those who cannot read or write, modern society is incomprehensible as was nature to our earliest ancestors. The illiterate has "no mean of communicating or entering the world of ideas by means of the written word." It is therefore rightly held that liquidation of illiteracy is our moral duty and an essential condition of human progress.

Ever since freedom was won we have been endeavouring to bring about social and economic change in our society. We have come to recognise that the transformation from a traditional to a progressive way of life can be effectively achieved only if the masses of our people become literate and are able to appreciate the true significance of the change. Their strength and support are essential for the success of our endeavours. It is therefore very gratifying to see the multi-

directional efforts being made to combat illiteracy in our country. The World Literacy Programme of the UNESCO, the Ministry of Education, the National Board of Adult Education and other organisations have carried on a sustained campaign against illiteracy. It is worth remembering however, that there are 386 million illiterate persons in our country, which is about half the total number of illiterates in the whole world. While every endeavour is being made to raise the proportion of literates, it is found difficult for adult education services to keep pace with the fast rate of population growth. The task of liquidating illiteracy in our country is thus a stupendous one, and the organisations which have dedicated their efforts and resources to this vital mission deserve the highest praise, and every encouragement and support.

The Planning Commission has recognised the need to exploit fully the potentialities of adult education for economic and social development. It is observed that "adult education should be linked effectively with key national tasks like elementary education, health and family planning, agricultural extension, co-operation, etc. To strengthen the motivation of adults their education should be effectively linked with their activities. It is rightly felt that literacy should be functional. Functional literacy represents a kind of education which is more immediately useful to the learner than a knowledge merely of the three R's. It aims to improve his knowledge and understanding of his profession or vocation and to make him more effective and skilful in his work. Functional litera-

cy can make the farmer a better agriculturalist and the industrial worker a better producer. Indeed it can make the lives of the masses of our people more meaningful and happier.

Illiteracy has kept millions of our people, notably women, particularly in rural areas, farmers, labourers and tribals out of the mainstream of national life. Our programmes of adult education should be so expanded as to embrace all these classes in a progressively increasing measure. Functional literacy will not only give them the needed knowledge and skills but also rationalise their attitudes and outlook to harmonise with the requirements of the changing society. The preparation of text books and other reading material specially intended for these neo-literates is a very important step in the task of promoting literacy. Very appropriate is the warning of the UNESCO that "adult literacy campaigns should not be launched until there is an adequate and continuing output of attractive and interesting reading materials available for those who have attained different levels of literacy". The importance of preparing and providing the right kind of equipment and reading material in any scheme of adult education has been recognised in our country.

The endeavours of the Indian Adult Education Association to promote literacy for over three decades have been praiseworthy. The Nehru Literacy Award, rightly named after the great leader whose thoughts and deepest concern were always for the welfare of the neglected and under-privileged people, is a

coveted honour. As a powerful incentive and source of inspiration to those who are devoted to the promotion of adult education it is today one of the most important institutions in the country.

Once again I congratulate the recipients of the Awards for 1972 and 1973 and hope that their noble endeavours to spread enlightenment among the people will stimulate further effort in this field.

## acceptance speech

by

Satyen Maitra

On occasions like these one experiences a mixed feeling. I certainly feel honoured and gratified to be the recipient for such an award. But I also feel doubtful and uneasy in mind whether I am really worthy of it. After all when I consider the magnitude of the problem and also objectively assess what my contribution has been towards resolving it, then what fills my mind is not a sense of achievement but a feeling of inadequacy. In my case this feeling of inadequacy is to a certain extent mitigated by the fact this award is really meant for the Bengal Social Service League founded over 59 years ago by a very remarkable man and a pioneer of adult education of India, the late Dr. D.N. Maitra. When a full and detailed history of adult education comes to be written, the contribution of Dr. Maitra will occupy, I am sure, a most glorious chapter.

We who are working in the field of adult education and adult literacy have to make up our minds about what kind of education or literacy we are aiming at. We should be doing adult literacy a grave injustice if we think of it like a magic wand which we have to wave just a few times to make all the ills from which we are suffering disappear. That is the kind of mistake which we have made over and over again. The mistake of one factor analysis. We thought that the advent of Independence would usher in an era of prosperity and well-being for all, it did not. Then we thought that the community development programme was the panacea for all our drawbacks, but the C.D. programmes to a great extent belied expectations from it. We thought that the Panchayti Raj would put us on the right track. Again we felt frustrated. We shall be committing the same mistake if we think that mere spread of literacy in a short space of time will enable us to take our place among the developed nations of the world.

We are living in a tough, distressing, gritty environment. The question is, do we want adult education as an instrument of change, or as an instrument for the preservation of the status quo? If we want to use it as an instrument of change, of liberation, then adult education programmes should not be on the fringe or periphery; they should be right in the centre, in the core. Adult education in the developing country should be 'growth' education, 'development' education. In that case adult education should not be concerned

only with alphabetization or extension of knowledge and information but with distention of mind more correctly in stimulating the inner receptivity of the people, heightening their critical consciousness, developing their ability to intervene and participate in the changes. If we want people to be really free, we should know freedom results from increase of consciousness and knowledge. As somebody has put it, it is not enough to want to be free, it is also necessary to know. But this knowledge must guide action. So the role of adult education is not only to provide learners with relevant knowledge and information but also to help them fight against and overcome whatever is crippling and stunting their growth. If that means fighting vested or entrenched interests and effecting structural changes adult education should not flinch from it. India is entering a phase of profound changes of a fundamental nature affecting all sectors of the society. If the people remain ignorant, passive and quiescent, then control and fruits of these changes will be grasped by a small section whatever be the label of the government. Upheaval, or no upheaval we shall be taken in by minor changes in the apex, the base of the pyramid will remain frustratingly the same.

If we want adult education to play a generative and seminal role, then it should be concerned with development of the critical consciousness of the people. People even in distant areas in our country are gradually emerging out of the State of somnolence and are becoming conscious of their power to change

their own environment. Adult education can provide tools which will help people to know which way to travel, how to travel and no longer will they be willing to follow others blindly. I am not claiming that we have been able to forge adult education as a weapon in the hands of our people but that is how it should be fashioned in a developing country. Indian Adult Education Association which has always been very dynamic and forward looking, will I hope, provide the necessary guidance and help in enabling adult education to assume this transformational role.

## acceptance speech

by

Ranjit M. Chetsingh

I am most grateful for the honour done to me by this Presentation. I offer my sincere thanks to the Association for this recognition of my labour of love over the years in this neglected field. I would say with the great poet **Ghalib**—*Jan di di hui usi ki thi—Huq to yih hai kih huq ada na hua* which freely rendered says: What (life) I gave was a gift from Him: The truth is, that I did not manage to discharge my obligations.

For the last few years I have been trying to limit my activities to the quieter and less noticed areas of life in India. It was a surprise, therefore, to receive intimation of this Award within hours of landing in Delhi on my

way back from some quiet seminar and committee work in Australia. Naturally this brought back memories of days long past—memories of co-workers and friends, some of whom like Shafiq-ur-Rehman Qidwai, Roche Victoria, Paras Ram and K.G. Saiyidain have ended their earthly labours and of some who are mercifully still active and even able to join us today.

I have always found joy in trying to peer into the future and seeking to live on the edge of the Beyond. This has kept me from falling into the habit of living in the past and talking about it! Today however, I will allow myself to recall how since 1931, after my training as a Tutor in Adult Education under Professor Peers of Nottingham, I have sought to emphasize that Literacy is but a Door in the edifice of adult education—important, but not an end in itself. It is imperative to stress this today when we hear much of functional literacy as the last word for the adult. Education is more than acquiring familiarity and skills in manipulating forces and materials. It is nothing less than turning the eye of the soul to the Light, as Plato put it, and not just filling the mind with knowledge.

In 1946, in making my Report to the Govt. of India who had asked me to visit the coal-fields of Bengal and Bihar and submit proposals for adult education there, I went so far as to say that "I do not regard Literacy as absolutely essential for every one engaged in coal mining. Total literacy can be aimed at only in a certain type of environment. That environ-

ment must be created in the community as a whole." I went on "... It is imbecility to believe that reading and writing are the starting point of the education of adults. The real task of adult education... particularly in the situation obtaining today is that of helping the individual to develop the capacity to choose right values and correlate the will to do with his powers of judgment and discrimination... If this truth is not treated as axiomatic... we shall only add to the ever-increasing fund of bureaucratic dissimulation and cynicism and to the sense of futility and dullness of which you see evidence in all fields of social work". (*Indian Journal of Adult Education*, July 1947). Participating in a symposium on *Human Values in Adult Education* in Calcutta in 1957 I affirmed: "The need for cultivating human values through a continuous process of education is most glaring in the case of those of us who are dwellers in cities and the so-called 'educated'. We do little to cultivate our minds; perpetual motion of the body or of the tongue (!) is perhaps our besetting sin. Most of us allow ourselves neither time nor opportunity to mature. Ever under assault by a multitude of facts, ideas, and propositions on which we must have an opinion... we plump for black or white, 'Yes' or 'No' without having acquired those elements which would enable us to arrive at a critical judgment. Many of us study no books, examine no issues for ourselves, but seek to gather wisdom and guidance from what the daily paper puts before us!... We must help people to find harmony between the world of facts and the world of the spirit for, as

Plato put it, the body and the soul are indivisible." This needs to be recognised more widely in our day than it is. (P7. *Human Values in Adult Education*) I.A.E.A., 1958).

Today, society has extended itself into many fields. We think not only of the world as of old, of the earth, the sea and the sky, inroads into space are becoming frequent. Love of material prosperity and economic power is becoming the mainspring of inspiration in large sectors of life. Opportunities for leisure are increasing for the mass of people but we have forged few avenues for its enjoyment—and those mainly sensuous. The Adult Education movement must assume new dimensions to meet this growing need.

We are now a democracy. Adult franchise has brought into use new measuring rods of equality with which wisdom, understanding and integrity are not always linked. Changing battalions of legislators and ministers are enlisted for the exercise of almost unfettered power. Their fitness for their tasks is rarely adequate. Means must be devised to help them to become educated persons in the true sense of the term. As Zakir Sahib urged in 1945 we must evolve a comprehensive machinery to ensure that the rank growth of the weeds of many-sided ignorance which threaten to smother the growth of the delicate plants of our democratic institutions is held in check.

This new challenge to creative educationists and concerned statesmen must be met with resourceful endeavour.

motion of adult literacy in this country.

Presenting the Awards Shri Pathak said: "The Nehru Literacy Award, rightly named after the great leader whose thoughts were always for the welfare of the neglected and under-privileged people is a coveted honour."

Reminding that there were 386 million illiterate people, about half of the total number of illiterates in the world, Shri Pathak said that illiteracy endangers the principle of equality of man as it reduces the illiterate section of the society to an inferior economic, social and political position. Taking into account the stupendous task which confronts the organisations and individuals engaged in educating the masses, Shri Pathak added, they deserve the highest praise and every encouragement and support. Shri Pathak called upon voluntary organisations to take up the task of liquidation of illiteracy which was essential for human progress.

He said that adult education should be linked with key national tasks like elementary education, health, family planning, cooperation and agricultural extension.

Reading out the citations, Dr. L. M. Singhvi, Vice-President of the Indian Adult Education Association said that Shri Maitra is a tireless and earnest worker and has worked with a will and smile all these years. This he said has served as a great inspiration to many people labouring in the field of adult education. Shri Chetsingh, the citation said, is a pioneer in the field of adult education and one of the founders of the Indian Adult Edu-

cation Association.

In their acceptance speeches Shri Maitra and Shri Chetsingh called for evolving a comprehensive machinery to ensure that ignorance was progressively minimised. Adult education could provide tools which would help people to know which way to go and no longer would they be willing to follow others blindly, they added.

Warning against the feeling that the mere spread of literacy in a short time would make the country a developed nation, Shri Maitra said that education should be programmed so as to help the people fight the vested interests that were holding up progress.

Shri Chetsingh said that love of material prosperity and economic power was becoming the source of inspiration in larger sectors of life. Though chances for leisure are increasing for the people and new avenues for its enjoyment have been opened up, the adult education movement must assure new dimensions to meet this growing need.

Dr. Amrik Singh, Director, South Delhi Campus of Delhi University and a member of the Executive Committee of the IAEA proposed a vote of thanks.

The Award is in the shape of a plaque with a gold medallion of Nehru held by a floral intaglio in silver. The inscription is in English and Hindi both.

A souvenir on the occasion was published by the Association.

An interview with both the recipients was also televised by the Delhi Television centre on the same day.

### **nehru literacy awards presented**

The Vice-President of India Shri G. S. Pathak, presented on March 16, 1974 in New Delhi, the Indian Adult Education Association's 1972 and 1973 Nehru Literacy Award to Shri Satyendra Nath Maitra and Shri Ranjit Mohan Chetsingh for their outstanding contribution to the pro-

# from our correspondents

## delhi

### commonwealth seminar

The Commonwealth Regional Seminar on Adult Education and National Development held in New Delhi from 23rd to 29th March, 1974, was convened by the Department of Adult Education, University of Manchester, UK, on behalf of the Commonwealth Secretariat. The Seminar was attended by delegates from Bangladesh, India, Malaysia, Singapore and Sri Lanka and by observers from Guyana, UNICEF, Ford Foundation, UNDP, British Council and the Institute of Development Studies, Madras.

The Seminar agreed to the following :

#### 1 *life-long education*

The concept of life-long education is to be regarded as of fundamental importance as the basis of all future educational development and its relationship to national development. It should be regarded as the responsibility of the whole society to aim at achieving an integrated approach both in its operation and in its effect on the individual beneficiary. It is also necessary to define exactly what we mean by

development. It should not be regarded only as economic development, but should also include the social and cultural aspects.

#### 2 *coordination*

There should be closer coordination and integration of non-formal education for adults with the formal provision in schools and colleges on the one hand and the work of various agencies of adult education on the other. In this way, a unified policy of adult education serving national plans and policies with the maximum efficiency might be achieved.

#### 3 *motivation*

Motivation in adult education should be clearly recognised as of the highest importance in the stimulation of the people's participation in the process of nation-building. The felt needs of the people should serve as the starting point of the process which can be ascertained at local level. The area of felt needs will, however, progressively enlarge as the work of adult education proceeds.

#### 4 *urbanisation*

Urbanisation should be recognised as an ever-increasing process bringing with it many harmful economic and social problems to the solution of which adult education can make a vital contribution. Its major contribution can be skills teaching and attitude changing programmes. This will enable the lower strata of society to improve their earning capacity and employment possibilities, which will tend to lessen income disparities. Adult Education can also help to bridge the gap between the different sectors of the

urban population and develop in them the civic community sense. These programmes can also assist the urban society to adopt itself to the rapid changes taking place. Enlightened governmental policy can accelerate the effects of good adult education.

#### 5 *staffing*

The structure of staffing for adult education should provide for a governmental input combined with non-governmental input. The former would provide full-time administrative organisers and teachers, assured of adequate conditions of service to attract high calibre personnel: the latter will provide voluntary teachers whose enthusiasm can be maintained by recognition and full-government support.

#### 6 *training*

The local needs of people would determine the training to be provided to adult educators. Training should be given to individuals from within their own communities so that development on a peer learning basis is stimulated. Research and pilot projects should ensure that all training should be suited to the needs of the clients. Materials production specialists using the data of research should be regarded as of prime importance.

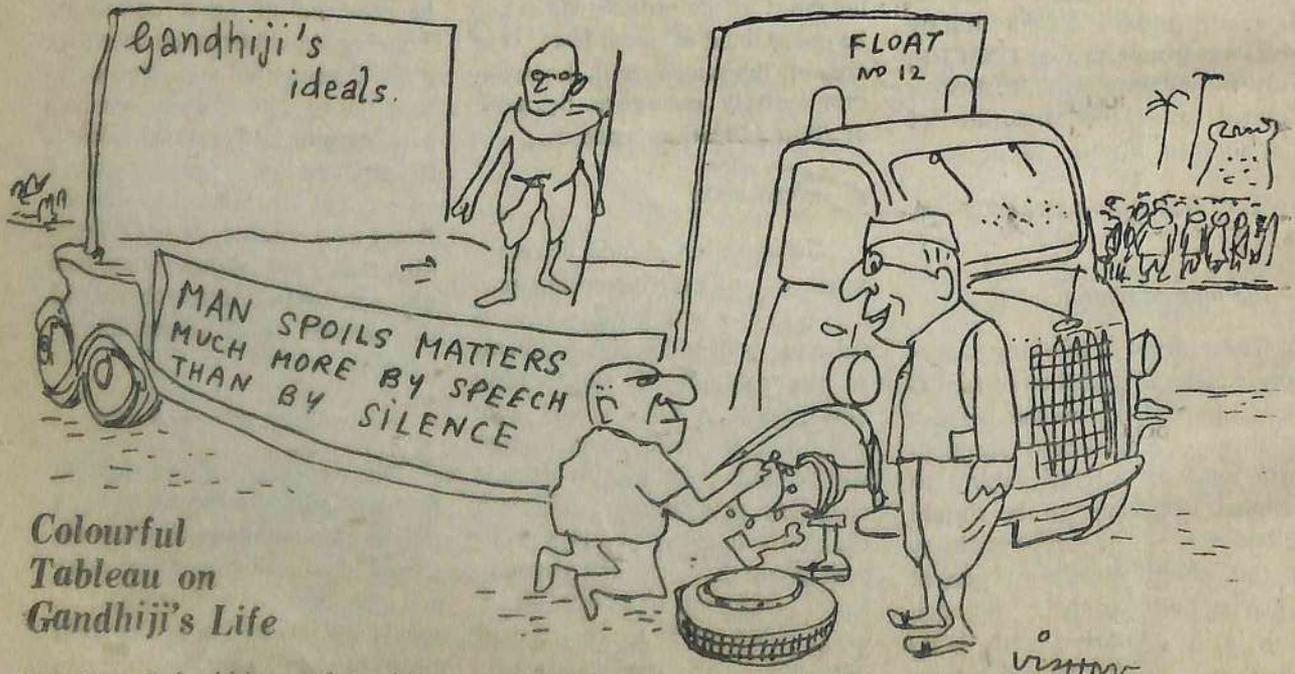
#### 7 *the exchange of information*

The exchange of information between adult educators from different Commonwealth countries should be encouraged in every possible way. An investigation should be made into the best means of exchanging information either through written material or personal contacts.

vishnu's response to  
dayal chandra soni's paper  
on gandhian basic  
adult education.



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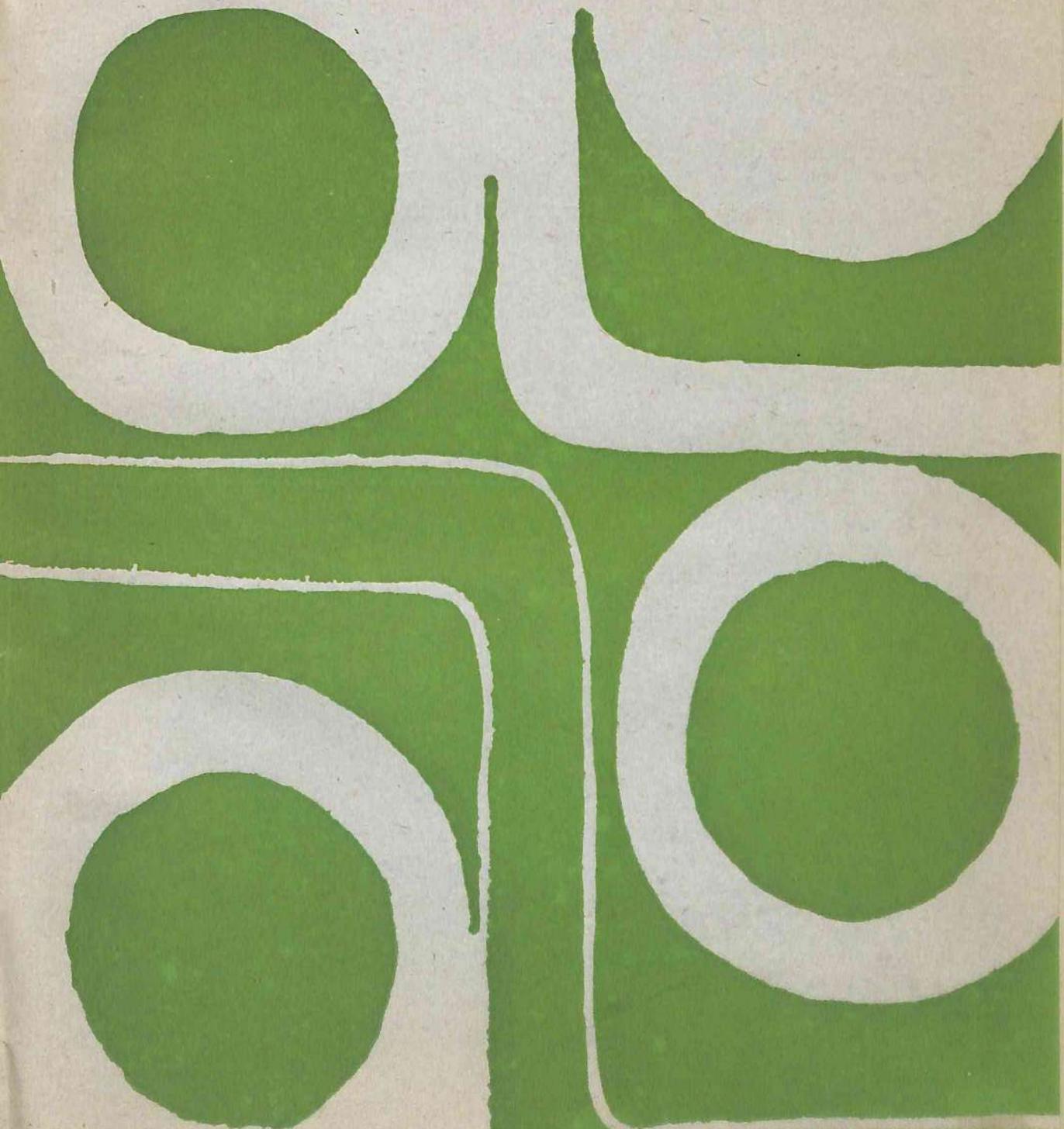
## IAEA New Publications

1. <b>On to Eternity—Vol. III, 1974</b>	Rs. 6.00 \$ 2.00
2. <b>A Literacy Journey—C. Bonanni, 1973</b>	Rs. 8.00 \$ 3.00
3. <b>Adult Education for Women, 1973</b>	Rs. 6.00 \$ 2.00
4. <b>Adult &amp; Community Education : An Indian Experiment—S.R. Mohsini, 1973</b>	Rs. 10.00 \$ 4.00
5. <b>Adult Education in India—A Book of Readings—Edited by Anil Bordia J.R. Kidd and J.A. Draper, 1973</b>	Rs. 50.00 \$ 10.00
6. <b>Adult Education for Farmers—J.C. Mathur, 1972</b>	Rs. 12.00 \$ 5.00
7. <b>Manual for Adult Literacy Teachers,—N.R. Gupta, 1971</b>	Rs. 10.00 \$ 2.75
8. <b>Adult Education in the Seventies, 1970</b>	Rs. 5.00 \$ 1.75
9. <b>Adult Education and National Integration, 1970</b>	Rs. 3.50 \$ 1.25

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# indian journal of adult education



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# limits of education

community and exacerbate their bitterness.

And what about adult education? Mercifully there is little of it. Our country still does not have a national programme, let alone a movement. True, an awareness is growing about its lack of integration with the strivings of the country and about the need to link it with programmes of national development; yet it remains true that adult education is a concern mainly of the adult educators.

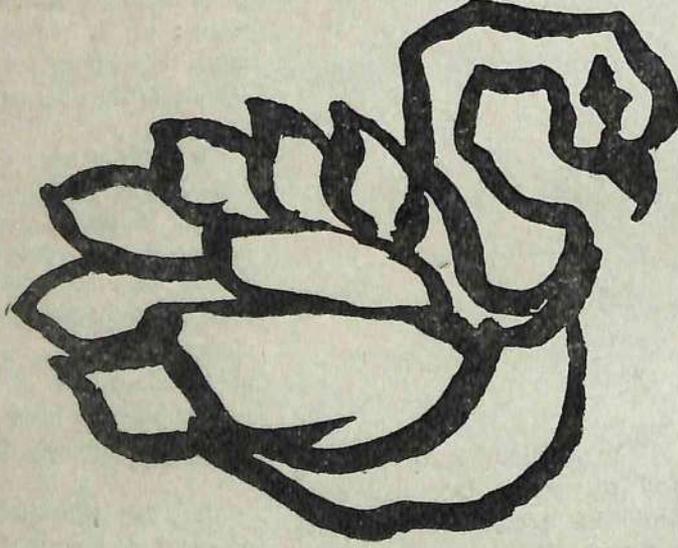
It has been argued by Christopher Jencks in his controversial recent book, *Inequality*, that education is only one of the many factors, not even an important one, in bringing about social change. The way our system of adult education is structured, its capability to bring about any change is extremely doubtful.

The question has to be faced and answered: Does education provide a remedy for our sick society? The sickness manifests itself in many forms; poverty, inequality and the organised lawlessness of the underground sector.

Schools, elementary and secondary, disengage the children from their parental vocations and from homes and pretend to provide vocational education. The insularity of the schools, their pedantry and unconcern for the future of the pupils results in creating an unadjustable and unemployable crowd of young people. Their only channel is upwards. Higher education, attracts these young people, not for learning but to postpone entry into the sour world of unemployment. Universities and colleges increase their isolation from

If adult education has to be an agent of change, if it has to overcome its isolation and if it is to acquire a dynamic link with social and economic development, all persons working in this field shall have to sit up and think hard to create a system which meets the nation's needs.

One cannot but close with some more questions. Should adult education restrict itself to literacy? What other media can be used and what role does an adult educator have in it. How can adult education's isolation from the nation's economic and social concerns; and isolation from education itself, be overcome and how adult education can be made an indispensable part of the organic structure of our society.



ते तमर्चयन्तस्त्वं हि नः पिता  
योऽस्माकमविद्यायाः परं पारं तारयसीति  
नमः परमऋषिभ्यो  
नमः परमऋषिभ्यः ॥

(Prashnopanishad)

The disciples worshipped their preceptor and said "Thou art indeed our father<sup>1</sup> who has landed us to the other side of ignorance,<sup>2</sup> salutation to the great Rishis,<sup>3</sup> salutation<sup>4</sup> to the great Rishis.

1. Father—because of giving birth to a new life, namely, the life of knowledge.

2. The other side of ignorance—the world of knowledge.

3. Rishis—The seers of truth, the teacher.

4. Salutation—The twice repetition of the salutation marks the end of the book occurring as the hymn does in the concluding lines of the Upanishad.

# urbanisation and adult education

W. Fisher Short

## urbanisation : some relevant considerations for adult educators

One element of modern life which must be of immediate concern to every country is the fact of urbanisation. Without attempting any academic analysis of the concept of urbanisation and without trying to develop any theory to account for its emergence and development, certain facts about the urbanising process are clear for all to see.

Urbanisation is universal. With the steady rise of population, the development of an industrial element in the economy, with the spread of education, with the emergence of a professional and managerial class, there is a simultaneous development of urban centres. This phenomenon is everywhere apparent, and we must examine, in due course, some of the consequences for adult education.

Urbanisation takes place within an economic and social context already existing. The impact of urbanisation on the existing context can be destructive, revolutionary, or sometimes relatively slight: but in all cases there is a tendency for the context to change either rapidly or slowly. Similarly, the impact of the traditional society and economy on the emerging conurbations can effect profoundly the parameters of urban growth. In short,

problems of development and adjustment are created both inside and outside the urban centres; and many of those problems are the concern of adult educators.

Urbanisation is usually associated with an increasing population. Frequently population increase puts a tremendous strain on the capacity of a country to provide housing, schooling, medical service, policing and entertainment. In graver cases, there is a failure to maintain an adequate food supply for all citizens. The question of employment within the context of a profit-making economy can become crucial.

Urbanisation is associated with a shifting balance of population. Urban populations tend to a rapid natural increase, which will alone upset the traditional balance of urban with rural populations; but additionally, urban populations are continually enlarged by a drift of people from the surrounding areas. We must look at the consequences of this for adult education.

Urbanisation destroys traditional patterns of social organisation and their attendant ideology. New patterns of organisation and values emerge. The tensions created by this process are the direct concern of adult educators. Hand in hand with this destruction of traditional patterns, the urbanising process creates additional new dichotomies. Urbanisation is normally

associated with the emergence of a new economic basis for society. Usually this is based on industry and commerce, and in most cases it looks to world, rather than purely national, markets and sources of supply. The net result, despite efforts to mitigate the process, is the development of urban centres with international affiliations set in the context of a changing, perhaps decaying, traditional rural hinterland from which those urban centres become progressively divorced except as a place for dormitory residence or leisure exploitation. This situation requires careful analysis in the case of each individual country. The essential watchword here is "realism" and an adult educator must avoid any superficial, romantic impulse to revivify traditional patterns of social life and production which are no longer viable, while attempting to assist the emergence of more enduring relationships between the urban and rural communities which the changed economic situation demands. There seem to be no general rules for this particular process. It is at points such as this that the adult educator emerges clearly as a community developer, and this immediately raises the issue of national planning and aspiration.

Because, under the impact of urbanisation, towns tend to become more "important" than the country, they tend also to become the focal points for concentration of power. Towns are the centres for industry, commerce and the attendant financial support structures (banks, exchanges, etc.). Towns develop as the centres for political, action, political institutions and governmental machine-

The author is the Assistant Director of Education, Hong Kong.

ry, including the civil service, the police and the armed forces. In short, towns become the springboards of power where the highest rewards for effort are available. As such they attract the intelligent and the ambitious, and a further consequence is that towns become centres for higher education and what we usually call "culture".

Of direct interest to the adult educator are two possible tendencies which may arise with the urbanisation syndroms. First is the development of a hierarchic view in which "town" is unconsciously assumed to be more important and "better" than country. The adult educator, who is most probably town educated and based, must beware of this unconscious assumption in his own work if he operates rurally; and must especially guard against permitting his attitudes to foster any ultimate cleavage which would set town and country against each other as incompatible "enemies". The second tendency is confined to the urban context itself. Just as town may be unconsciously assumed to be more important or better than country, so, within urban areas, a similar attitude may arise in the minds of those committed to developing the economy with regard to some sections of the urban population. This is particularly so when the urbanisation process itself creates difficulties of personal and social adjustment for large numbers of people, together with attendant problems of housing, social service, and employment. It is very easy for those in relatively secure positions, with a clear concept of how things "ought to be", to invest the more insecure and bewildered members of the popu-

lation with a nuisance value which can result in attitudes of patronage or thinly disguised dislike, or in actions which range from indifference to displays of naked power. It is salutary, I feel, for adult educators to bear these possibilities in mind, not only with reference to their own behaviour, but also in the case of any pattern of urban relationships within which they or their clients must live and operate.

I have tried to draw attention to some of the considerations which must condition the thinking and action of adult educators in countries undergoing urbanisation. It is very easy to lose sight of these basic conditioning factors in the face of an urgent necessity to carry out policy or to attack some particular problem which seems to present itself in isolation. In social and community affairs, isolation is often specious, and while problems must be subjected to orderly consideration and particular lines of action adopted, the total network of social interrelations of which any problem is but one part should never be absent from the adult educator's awareness.

### **some specific tasks for the adult educator in an urban context**

It has been suggested that three main tasks face the adult educator in an urban context;

- i) training and re-training for a new industrial labour market;
- ii) participation in social welfare programmes; and
- iii) assistance to new urban dwellers in their adaptation to the social and official

demands of urban community life.

There can be no dispute that these three areas are of prime importance in any context, and that each area contains a variety of specifics which relate to particular countries. The precise delineation of these areas with reference to individual situations is a matter which must engage the attention of leaders in the field of adult education. I shall now attempt to schematise some of the lines on which thinking is urgently needed.

### **identifying the clientele**

It is reasonable to begin by recognising that *people* have problems. This is more realistic than considering problem in the abstract. As adult educators we can see that the people with whom we are primarily concerned are, or tend to be, the casualties of urbanisation. Initially we can adopt quite broad classifications perhaps as follows :

- i) the physically handicapped,
- ii) the mentally handicapped,
- iii) those with limited/insufficient education,
- iv) the culturally deprived (e.g. the aged),
- v) the socially deprived (e.g. immigrants from the country or other social patterns),
- vi) the economically deprived (e.g. those who fail to meet the labour requirements of changing methods of production).

Of course these categories overlap in particular cases, but I think they are sufficiently isolative to permit systematic survey and the framing of adult educa-

tion programmes. The people who may fall into these various categories are also clearly those to whom the three main tasks identified before will apply.

Moreover, the clientele for adult education can also be seen as products of three forces which, for most people, are unavoidable. They are :

The implication for governments is quite clear. The biological fate of citizens must be progressively provided for. Any planning which involves demographic or economic change should include provision for those who need help in adaptation. If such provision has not been made then the problems for the adult educator, among others, increase in both quantity and quality.

### **social deprivation**

The problem of the socially deprived can be taken as a typical example. These people may well be recent urban dwellers. The adults may have been neglected by the formal education system, and their urban life is characterised by ignorance and a lack of awareness of the nature of the urban environment, on the one hand, and by a generalised failure of nerve or lack of confidence in the face of the unknown, on the other. They tend to dwell in the poorest housing where a sub-culture, often of a socially disruptive kind, can develop.

The capability for recognising and dealing with this kind of situation requires an organisation. Depending on the history of a particular country, that organisation will be either a private agency or a government department; sometimes both private and government agencies exist at the

same time. But, no matter what situation prevails, four things can be said :

1. From the point of the client, it is the socially "deprived family" which must be identified and dealt with. The treatment programme may well encompass at least two generations.
2. In order to carry out identification and treatment, an organisation must be created or used.
3. In order for identification and treatment to be carried out effectively, co-ordination between agencies is essential. An obvious case is co-ordination between the Social Welfare agencies and the Education authorities. What this implies is a fundamental change in some entrenched official attitudes. The traditional dividing lines between government departments and between government and the private agencies must be broken and a "team" approach substituted for the existing pattern which is, too often, that of a series of separate, specialised offices whose responsibility ends "when the file is passed on".
4. The adult educator must have a place in the total "team" approach. Certainly adult education cannot deal with all elements of the process. Perhaps, in the case of the socially deprived the adult educator can best contribute through the encouragement of child care and home management activities of various kinds.

### **the clients' problem**

At this point one can usefully consider a set of problems which

arise from the circumstances and attitudes of the client. These problems occur at all stages of the adult education process, and add a dimension to all solutions.

It may be difficult to establish continuing contact with the urban worker, particularly the deprived. His domicile may move, his work may be occasional, his hours of work may be irregular or long. There is the problem of a second job and home industry. All this makes it difficult for him to be available on a regular basis for any retraining or other systematic course work or activity. This problem is not insoluble, but needs to be taken into account.

Secondly, the client may be shy, uneducated, and accustomed to a way of life which would make the conduct of adult education in class-rooms, with all the formality and orderliness found there, an intolerably tense and emotionally unbearable experience.

Thirdly the client may resist the adult educators' efforts. All people have their pride. A worker especially takes pride in his ability to do his job. If he is told that his skill is not required, or that it must be abandoned in favour of an alternative, this can be a profound psychological shock. If the situation is complicated by a lack of understanding of, or confidence in, the adult educator then an additional problem arises. At its worst it means that no relationship between the adult educator and his clients becomes possible except one of subjection, fear and hatred. This is to be deplored most in situations where adult education programmes are subject to official decree.

Such problems point to the need for careful consideration of how adult educators are trained and carry out their work. In the face of such problems, training may be best carried out by participant observation during field attachments, and work carried out by functional penetration of the group to be educated.

### **the various agencies involved in adult education**

Having considered the clientele, the nature of the help required and some of the problems involved one may consider in greater depth about some of the agencies involved in adult education. The major ones can be itemised as—

- i) Government departments.
- ii) Universities and colleges.
- iii) Industry and commerce
- iv) Private philanthropic agencies.
- v) Trade unions.
- vi) Political parties.

In so far as adult education relates to national programmes it can be said that the general tendency in all countries is for the central government to play an increasingly important role, if only in the definition of programmes. This raises the question of the relationship between the government and all other agencies. In so far as adult education requires finance, equipment, accommodation, personnel, both part-time, it can be said that no adult education organisation can be self-financing. In short, adult education becomes increasingly a charge to the exchequer. This factor cannot be ignored. For example, one hears much about the need for partnership between statutory and voluntary bodies in the provision of

adult education. Voluntary bodies exist as a product of history. Political programmes are contemporary. One may then ask whether such "partnership" is a temporary or permanent phenomenon. Certainly the idea of "partnership" has deep political implications which cannot be overlooked.

Several important questions arise when we examine the way in which government relates to commerce and industry, the universities, the education system, the social welfare departments and the labour organisations. What element of direct or indirect control and consultation is there? What financial subvention? The answers to such questions in particular cases may afford insight into the way in which the adult education organisation is most likely to develop. If one may hazard a guess, a likely pattern in many cases will be for progressive centralisation of planning and budgeting in government hands, if only in broad terms, with the various agencies as executive instruments operating within the planned limits. Relationships between agencies and the central authority can then be seen as subject to the twin pressures of efficiency and economy. Some agencies may already be government controlled. Broadcasting is frequently of this kind, but the press may not be. All media (including cinema) can be mustered for adult education purposes.

For example, another agency which can provide to be difficult to incorporate into a total planned programme is the University. Universities, as a fact of history, are relatively independent institutions. They can tend to be un-social in their outlook, although this is

changing: they can still bear the impress of a class oriented function. Although, they frequently have established relationships with the local government, private agencies and the business world, it can be difficult to secure their commitment to carrying out policies which may not have originated from themselves. One can, perhaps, again raise some question which should be considered by persons concerned with the future of universities and of adult education. Are they best suited for retrieval work at tertiary level? Or for the provision of liberal enrichment studies for the professional classes? Can they realistically be expected to undertake vocational re-education among the working classes? What measure of autonomous self-direction can they legitimately enjoy during a period of urbanisation and industrialisation? Are the universities really suited to take part in the solution of urban problems? If so, in what ways?

Similar questions arise in relation to employers. Should they accept responsibility for the education and re-education of their workers? If so, should this be done internally, or through schemes of release or leave? Who will meet the cost? Who will decide what re-education is required and when it shall be carried out?

I mention these questions relating to the agencies because, although it is relatively simple to discern the problems which arise from urbanisation and it is not too difficult to propose measures for dealing with these problems, it is not easy to blueprint the operations necessary to bring those measures into planned, coordinated action. It is only by considering very precisely the existing web of interlocking activities which the various agencies now form, that any adult education programme can become a reality, save at the expense of destroying some portion of the superstructure of society. A balance sheet of profit and loss seems to be called for.

# creative drama for young adults

Mina Swaminathan

*Our issue of January, 74 carried a brief report on Creative Drama for Young Adults at Mobile Creches. This organisation, in Delhi runs various on-site facilities, including evening adult education centres, for construction workers and their children, on large building sites. The workers are mostly landless migrants from Rajasthan and Eastern U.P. In this article, the author, who is the main person behind this programme, describes further the method adopted and its place in adult education.*

Creative drama is different

from the usual kind of recreational drama programme often planned in educational institutions, in several ways. Firstly, it does not begin with a "play" either a script or a traditional play—it proceeds by exploring the experiences, feelings, attitudes, thoughts and ideas of the members of the group and uses this raw material to build the play. The method is improvisation and the play grows around it. It follows therefore that there is no final or finished product; the performance can vary, and usually does, every time, in content and quality. Thirdly, the

objective is to make it an educational experience for the participants chiefly and to use the drama as a medium for discussion and consideration of certain topics; the impact on the spectators, if and when there is a performance for the public, is usually good, but this is a minor consideration.

## theme

The first problem is the choice of theme, and next comes the question of how to develop it. Here the age and interest level of the participants determines the outcome. For instance, younger children are deeply interested in myths and folktales and can create interesting plays based on folk tales. In working with children on the work site, the procedure was to begin with telling of folk stories and singing of folk songs. Then portions of the story were taken up for working out in small groups. Simple exercises involving detailed work on various aspects were used whenever necessary. For example, one story involved the traditional difference between a clever and a stupid brother, the elder brother trying to trick the younger one but ultimately losing. In this story, a market scene was suggested. The work began by asking everyone to imagine themselves in a market place. Working in twos the boys improvised small scenes based on haggling, bargaining, buying and selling, inspecting goods, asking questions etc. A variety of incidents were presented, and there were some humorous and interesting ones. Later on this scene became a part of the play.

With the slightly older group, aged about 12-16, it was found that the theme of decoits v. police was spontaneously suggested by

the boys themselves and was very interesting for them. Here the influence of films is considerable. The boys were all eager to play the role of the decoits, so to satisfy everyone they were divided into two rival teams of decoits keenly competing with each other and the plot was developed from this conflict. The final plot involved treachery and betrayal, loyalty, and hate, bribery, corruption and courage.

The role of the teacher or leader is to shape. He/she selects incidents, suggests turns of the story, accommodates various characters, involves everyone by providing suitable roles, and generally makes a play out of the loose materials. Poetic justice is always appreciated. The 'decoits' for instance fully accepted the idea that they must be caught and either killed or punished, but in dramatic terms, got over the difficulty by arranging beautiful stage deaths for themselves. The portrayal of the police in this play was significant. At one improvisation session, a talented youth, began to improvise and built up a wonderful portrait of a policeman, callous, brutal and casual, harassing and bullying the innocent and the guilty alike. It was a perfect piece of true-to-life observation, deep feeling and identification with the role and no doubt had a profound therapeutic effect on the boy concerned, who seemed to enjoy this role so much that he on one occasion sustained an improvisation with the group for nearly 45 minutes—this is quite a feat as those who have worked in this field will know. With an unassuming and modest manner, he had the ability to guide and help others in the group to play

along with him. When another twist in the plot was suggested, he changed character at once, and became, as the *same* policeman, a cringing, servile, flattering little official, cowering before his superior officer.

In this way the play worked at two levels—on the one hand giving a chance for the exploration and expression of deep personal feelings, on the other an opportunity to utilise observation. All the boys in this group were employed as casual labourers on the work site and had joined the literacy class recently. Incidentally the end performance was most satisfying for the audience who appreciated the deep identification of the actor with the role and enjoyed the play immensely.

### scenes from daily life

In another instance, working with much older people, (16+, several young men in their twenties and one or two older men) it was suggested that scenes from their own daily life should be acted out. This was not at all well received at first, as most of the workers felt that their own lives are not the stuff of drama; most of them felt that stories like Ramayana and Mahabharata only are fit to be enacted on the stage. However, it was agreed to try it out on the understanding that it was only 'practice' for the real business of acting a real play. So on the first day various incidents were told and then enacted such things as looking for work, finding the way in a stranger city, being without money in a new place, borrowing money, being hired or fired and so forth. Unpleasant incidents like pickpocketing, theft, losing pawned goods, being unable to read a letter were

also taken up.

After a series of improvisations related to these, the leader began to shape them into the form of a play. By a convenient twist, the hero of the play became one who suffered a series of misfortunes most of which were due to exploitation by others of the fact that he was illiterate—the conclusion followed effortlessly! The mechanism used to save the hero was the help of his friends and comrades, who are also workers, thus demonstrating the solidarity of the working class. They trick the wicked exploiters and bring them to punishment—the moral that to escape future harassment he must become literate is obvious. Besides folk songs fitted into the play for entertainment value, a specially composed song on the theme of literacy was also brought in. A number of humorous scenes and incidents drawn from observation of life were woven into the play, and several talented boys were discovered in the course of working out.

Thus the process of creating the play became a highly enjoyable and educative one for those participating, while the play was hilarious and greatly enjoyed by the audience when performed. At the same time, meaningful themes relevant to their life and work in today's world were explored and discussed. Thus the drama can help in creating awareness, which is one of the basic objectives of adult education. Awareness of injustice and exploitation and understanding of their causes must inevitably lead to political consciousness and group action in some form. But drama can also, through the opportunity to play roles, help people to study

alternative ways of handling situations.

An interesting aspect of this programme was the amount of audience participation in the creation. The sessions used to take place in a small roofed verandah open on three sides. There was always therefore a small and floating audience of casual onlookers who would drop in, watch for a while and then go away. Several times these onlookers would make suggestions. On some occasions they got so interested that they offered to take roles and joined the improvisation for the evening. One or two of these became "regulars" later, while others never repeated their first visit—yet all had contributed to the play. There was thus a genuine community involvement in the play.

### values

Another important aspect of creative drama lies in opportunities it provides for playing out the natural instincts and harnessing violence to legitimate causes. Mock fights of various kinds and dramatic situations involving conflicts between groups are good ways of handling violent feelings. There is no harm in fighting but it is better to fight for something good and worth-while.

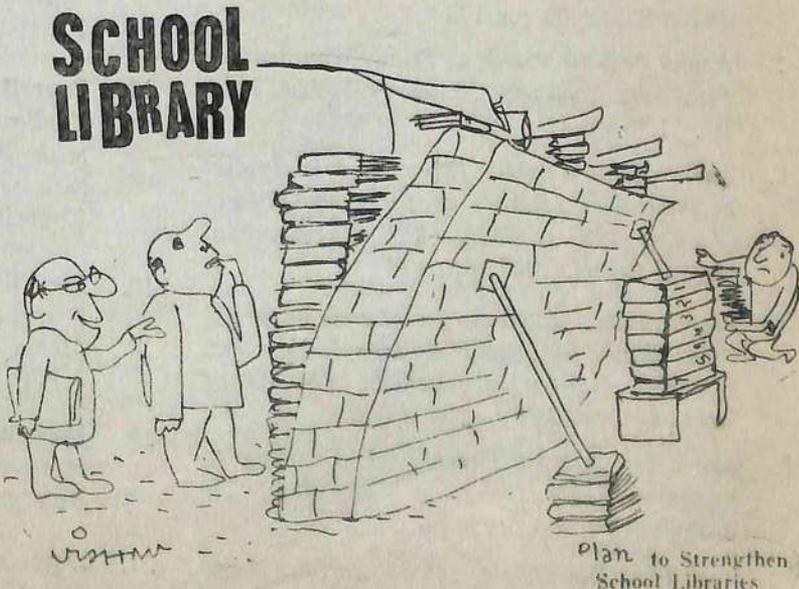
There are many other values to be found in creative drama in this situation—for example the opportunity to develop cooperation and team spirit, to display initiative and resourcefulness. Amongst those who have never attended school or dropped out early, there is often an unwillingness or inability to sustain mental effort for very long a sort of laziness and lack of discipline.

The drama again is a way of introducing this discipline—it has its own compulsions and makes people work willingly. There are also the conventional values like providing scope for individual talents, and the therapeutic uses mentioned. Best of all it leads to a new and better relationship between teachers and taught and brings a warmth and closeness which pay rich dividends in the educational process.

In the cities, most of the working youth live in miserable jhuggie colonies where even the barest amenities of life are not available, leave alone facilities for recreation. The only recreation available is the cinema, with all its false glamour and destructive values. Yet the boys showed time and again that when a constructive and interesting alternative recreation was offered, they were prepared to forego a visit to the cinema. In the long run, more community recreation along these lines can be the only answer to the ubiquitous cinema.

It was noticed that the light and humorous aspect was usually taken up first in all such activity. There are several reasons for this. But this situation need not be accepted as the only possible one. The value of great drama is precisely in making it possible for us to confront vicariously the great emotional moments and crises of life—the question arises: can creative drama also do this, or must it for ever remain at the level of light entertainment? This question cannot be answered in a moment; but two things are clear—before people are ready to expose their deeper feelings, close relationships must be built and this means hard and continuous efforts by the staff; and secondly, a choice of good story material, drawing on the folk tale, the epic and the classic, wherever it touches the universal human emotions can also play a part. This is the next step, which the author would like to explore in continuing work in creative drama with young workers.

### on self supporting education



*At present we're using our books to support the walls . . .*

# a select bibliography on adult education in india

Several readers have brought to our notice that a select bibliography on Adult Education in India would be of immense value to Government Departments, voluntary organisations and adult educators who want to set up a library on this subject. The list that follows has been compiled by Km. Nirmal Sehgal and Km. Suresh Sharma, Librarians in the Directorate of Adult Education, Ministry of Education, and Social Welfare, Government of India.

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# the indian university association for continuing education

The First All-India Conference on University Adult Education was held at Bhopal in 1965 under the joint auspices of the University of Rajasthan and the Indian Adult Education Association. The Conference felt that as a result of the present explosion of knowledge the need for carrying it to people of all walks of life has added a new dimension to the tasks of the universities. The universities must recognise the need and the great opportunity for strengthening the links with the community through a well developed continuing education programme. It further resolved that an organisation to advice and foster the growth of adult education work at the University level be set-up.

In pursuance of the above mentioned resolution the University Adult Education Association was established in 1966. Its name was changed to Indian University Association for Continuing Education (IUACE) in 1970. The Association is a registered Society under the Societies Registration Act XXI of 1860.

## objectives

1. to create an environment for proper understanding of the importance of continuing

education programmes at the University level;

2. to assist Government, statutory and voluntary organisations in India (like the University Grants Commission, the Inter-University Board, Universities, and the Indian Adult Education Association) in formulating policies and programmes of continuing education at the University level;
3. to extend resource facility services to UGC and the Universities in setting up and in the working of the departments of continuing education;
4. to promote cooperation and coordination among Universities in conducting continuing education programmes;
5. to serve as a Clearing House for exchange of ideas, information and experience by Universities conducting continuing education;
6. to create an awareness among curriculum builders to a concept of continuing education rather than terminal education;
7. to conduct and to provide facilities for research experiments and pilot projects, in the field of continuing education;
8. to hold conferences, seminars, workshops, institutes etc. for the discussion of programmes and problems of continuing education;
9. to undertake training programmes and to institute fellowships for the personnel engaged in continuing education;
10. to develop and produce literature on continuing edu-

cation;

11. to evaluate and appraise the work done by the Universities and such other bodies in continuing education;
12. to establish link with organisation working in the field of continuing education in foreign countries.

## membership and management

The Universities, as defined under UGC Act and their affiliated Degree Colleges and Individual person engaged or interested in or having expert knowledge of continuing education can become ordinary members on payment of annual membership fee of Rs. 250/-, Rs. 50/- and Rs. 15/- respectively.

The Executive Committee may enrol Institutions and Individuals from foreign countries as associate members.

At present the Association has a membership of 38 universities, 15 degree colleges and 8 individuals.

The affairs of the Association are managed by an Executive Committee formed every two years from amongst the members of the Association with its headquarters at New Delhi.

## programmes and activities

The programmes and activities of the Association have a national orientation. During the past few years it has organised two national seminars and a Conference on continuing education in universities in the Asian-South Pacific Region at Madras in 1970; persuaded the UGC to assist the Universities in establishing departments of adult/continuing

education and ensuring its support during the Fifth Plan; undertook two studies namely survey of correspondence education in universities and Study of the Evening Colleges in collaboration with universities and established links with national and international organisations working for the cause of continuing education in India and abroad.

The Association had been holding its annual general meetings alongwith the Inter-University Board in Annual Conference (now named as Association of Indian Universities). Shri P.B. Gajendragadkar was elected President in 1967, followed by Shri I.J. Patel in 1969, Prof. Meenakashisundaram in 1970 and Shri N.K. Vakil in 1972.

In the General Body Meeting held at Kharagpur on February 3, 1974 the following office-bearers were elected for two year term:

- President ... Shri N.K. Vakil,  
Vice-Chancellor,  
M.S. University of  
Baroda.
- Vice- ... Dr. M.S. Mehta,  
Presidents Seva Mandir, Udai-  
pur.
- Dr. J.N. Kapoor,  
Vice-Chancellor,  
Meerut University,  
Meerut.
- Secretaries. ... Shri Anjni Kumar,  
Secretary, Association  
of Indian Universities,  
New Delhi.
- ... Shri S.C. Dutta,  
Hony. General Secre-  
tary, Indian Adult  
Education Associa-  
tion, New Delhi.

Shri Virendra Tripathi is the Executive Secretary of the Association.

Virendra Tripathi

# international council of adult education

## report on the second meeting of the board

Adult Education is the primary concern of voluntary organisations in all parts of the world and their role and vocation is to be clarified and strengthened. Adult Education has the answer to the three problems worrying all countries—how to ensure development and growth which is truly democratic ; how to counter the growing pollution and destruction of our environment ; and, how to reform our stagnant and increasingly irrelevant educational system. The U.N. University now being planned must have adult education built into it. The Second Development Decade which is sagging and lagging must

be restructured and revived. Adult Education's key role must be recognised by making an annual award to its most distinguished votary and practitioner.

These and other decisions emerged from the Second Meeting of the Board of the International Council of Adult Education attended by twenty members from fourteen countries and observers from UNESCO and four international organisations which met in Cologne on May 13th and 14th, 1974, under the presidency of Dr. Malcolm S. Adiseshiah (India). (For the record of the first meeting see the July 1973 issue of the Journal).

The Board adopted the Constitution for the Council, which defines its objective as the promotion of adult education as a means of contributing to peace, security, international understanding, the development of less developed countries and the reform and restructuring of the entire educational system in terms of life-long continuing education. It defined its membership as consisting of national adult education associations and regional adult education associations like the Asian-South Pacific Bureau of Adult Education. It also has associate members without the right to vote, a limited number of individuals distinguished for their service to Adult Education, UNESCO, FAO and ILO and international non-governmental organisations which are involved in adult education.

The Board admitted Netherlands, Eire and Scotland to membership at this session, making the total membership of the Council 36. It decided that the Council should award an annual

prize of \$5,000 to a person making an outstanding contribution to some field of adult education and authorised the Secretary-General Dr. Roby Kidd to work out the conditions and procedures of the award. It endorsed the decision of the Asian South Pacific Bureau of Adult Education to establish an Asian Centre of Continuing Education at Kuala Lumpur, Malaysia, and transfer the headquarters of the Bureau to Kuala Lumpur, which will also act as the regional office of the International Council. It voted funds to assist the calling of a Conference of the Asian and South Pacific Adult Education Associations in 1975 to review and support the work programme of the Kuala Lumpur Centre at which time the Secretary-General will also visit China, North and South Korea and North and South Vietnam to secure their membership of the Council. The Council approved the Conference of National Adult Education Associations to be held from September 9-13 in London as a means of strengthening and advancing the activities of the Associations. It also authorised the holding of a Conference from September 1-7 by the African Adult Education Association on Comparative Studies in Adult Education and a Conference on Adult Education and the Environment next year in cooperation with the United Nations Environmental Programme. It requested the Secretary-General to explore the possibility of organising a regional seminar for the OECD countries on the contribution of post secondary/tertiary education to the concept of permanent life long education. It authorised its U.S. member to continue discussions with the

U.N. on adult education's role in the U.N. University and the Secretary-General to propose a consortium of Universities specialised in adult education to the U.N. University.

It reviewed the Council's publications programme which includes a periodic adult education bibliography (to which National Associations are requested to send one or two national bibliographies a year), the journal convergence (which will have a running section, What is Adult Education, in order to promote a dialogue on varying concepts and emphasis of adult education) and a monograph of comparative studies of adult education.

The Board decided that its 1976 meeting which will coincide with the mid point of the Second Development Decade will make an assessment of the contribution of Adult Education to the Second Development Decade and will be held in Tanzania under the leadership of its Honorary Patron, Julius Nayerere, President of the Republic of Tanzania.

The Board was greatly helped and inspired in realising and acting on its international adult education vocation through its meeting in the Federal Republic of Germany which through its 1150 folk high schools has the largest national network of adult education centres of any country in the world and which organised the work of the Council with generous hospitality and outstanding efficiency.

Adult education is today on the march, a march in which the unending demands for peace and development are being learnt.

The Key-note address on "Socio Economic Background to Rural Poverty" will be delivered by Shri Sugata Das Gupta, Director, Gandhian Institute of Studies, Varanasi.

All persons connected with adult education are entitled to attend the Conference. To secure accomodation and to receive reading material the intending participants are requested to send delegation fee of Rs. 10/- to the Hony. General Secretary of the Association by September 25, 1974.

**zakir husain memorial  
lecture**

The fourth Zakir Husain Memorial Lecture will be delivered by Dr. M.S. Swaminathan, Director-General, Indian Council of Agricultural Research on November 4, 1974 in Lucknow.

The Zakir Husain Memorial Lecture has been instituted by the Indian Adult Education Association to commemorate the distinguished services of Dr. Zakir Husain to the cause of education and enlightenment and his close relationship with the Association.

The first memorial lecture was delivered by Dr. K. G. Saiyidain in Madras in 1970. The second and third lectures were delivered by Prof. M. Mujeeb and Dr. M. S. Adiseshiah respectively in Bombay and Jaipur in 1972 and 1973.

**visitors**

Moss Stambler, Professor of Education, Southern Connecticut State College, New Haven, U.S.A. visited the office of the

Association recently. He had discussion with the staff of the Association on continuing education programmes in India. He was particularly interested in the involvement in Adult Education by the Indian Universities.

Sarvshri A.A.M. Imual Haq and M. D. Shadid Husain Talukdar of Bangladesh Rehabilitation Assistance Committee visited the office on June 26, 1974 and discussed the problem of motivation and drop-outs in the adult classes. The different methods of teaching adults were also discussed with the visitors.

**dutta gets adult education  
award**

Shri S. C. Dutta, Hony. General Secretary, Indian Adult Education Association has been declared "most outstanding Adult Educator of Delhi" for 1973 in recognition of his meritorious services to the cause of adult education.

The Award has been instituted by the Delhi Adult Education Association.

**annual conference in  
lucknow**

The 27th Annual Conference of the Indian Adult Education Association will be held in Lucknow (U.P.) from November 3 to 6, 1974. The theme of the Conference is "Adult Education Programmes in the Service of Rural Poor".

**revised rates of ijae**

We sincerely regret to inform our valued subscribers that due to unpredicable rise in cost of paper and increase in cost of printing, we are forced to increase our subscription rates with effect from the 1st July 1974 (i.e. Volume XXXV No.7) as follows :

	Annual Subscription	per copy
Indian	Rs. 15/-	Rs. 2/-
Foreign Countries	US\$6.00	\$ 0.75

# from our correspondents

delhi

## asian-south pacific centre for adult and continuing education

The Asian-South Pacific Workshop on "Training of Adult Educators", which was held in New Delhi from May 4 to 11, 1974 has recommended that an Asian-South Pacific Centre for Adult and Continuing Education be established somewhere in the South East Asian Region to advocate, promote, assist and guide the cause of adult and continuing education in the context of life-long learning of the region.

The workshop organised by the Asian-South Pacific Bureau of Adult Education with financial assistance from the Friedrich Naumann Stiftung of West Germany was a follow-up of the Seminar on the same subject held in New Delhi in March 1972.

Inaugurating the Workshop, Dr. M. S. Adishesiah, President, International Council of Adult Education and former Deputy Director-General of Unesco said that in training, priority should be given to those educators who produce teaching and learning material for different kinds of adult education programmes organised by political parties, trade unions, cooperatives on family planning, child care, nutrition, civic education, social action, agricultural and industrial production.

Earlier, Mr. S. C. Dutta, Chairman of the Bureau in his welcome address said that institutions of formal education today were centres of *status quo* and therefore of stagnation, indiscipline and elitism. They could hardly serve the needs of a developing society which required skilled labour force both for farm and factories.

Mr. Dutta said that the ill-trained and the un-trained adult educators could not serve the need of developing countries. Thus the training of adult educators was of crucial importance to the cause of adult education, he stressed.

Dr. Mohan Sinha Mehta, President, Indian Adult Education Association in his presidential address said that adult education should take into account the learners' personal, social or professional problems and seek their solution.

The delegates were divided into two groups to prepare the manual and to prepare a blueprint for the Regional Institute. The group Chairmen were Mr. A.C. Vizconde of Philippines and Dr. Amrik Singh, Director, South Delhi Campus of Delhi University. Dr. Balwant Reddy, Professor of Economics, Staff Training College, Hyderabad and Dr. Elizabeth Sommerlad, Research Fellow, Centre for Continuing Education, Australian National University, Canberra were the reporters of the two groups.

Twenty delegates from eight countries of South East Asia and Pacific attended the Workshop. A representative of Friedrich Naumann Stiftung and Deutscher Volkshochschul Verband of Bonn,

West Germany also attended the workshop.

The Workshop recommended that in preparation of manuals for adult education priority should be given for manuals for functionaries in the intermediary level i.e. supervisors, trainers and those who are responsible for the preparation of the learning materials. The manuals should relate the work of adult education with development programmes and should be frequently revised so as to meet the needs of the changing society.

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## annual conference of daea

The annual conference of the Delhi Adult Education Association was held in Delhi on June 8, 1974.

Inaugurating the conference, Shri Radha Raman, Chief Executive Councillor of Delhi, emphasised the necessity of involving students in adult education work and utilising the existing schools for this work.

Shri Hans Raj Gupta, former Mayor of Delhi and President of the Delhi Adult Education Association said that literacy education was only one part of adult education and the aim should be continuing education of all people to enable them to make effective contribution in the society.

Shri S. Milind, General Secretary presented the annual report of the Association.

The highlight of the conference was the symposium on "Concept and Content of Non-formal Education". The speakers were Shri Asher Deleon, Unesco Adviser, Union Ministry of Education and Social Welfare, Dr. N. A. Ansari, Sarvshri S.R. Mohsini, Virendra Tripathi and B.R. Vyas.

Sarvshri Hans Raj Gupta and S. Milind were re-elected President and General Secretary respectively of the DAEA for a term of two years.

the very first teacher, at Sevagram, 1938-39, and after working in it, in various areas, for 8 years, the following principle of education compelled me to enter into mass education.

Education is a process to implement the decision of 'elders' on the way of life to come. My experience of leaders, in both the fields, is just the same, as written by Soniji. But mere writing has never served the purpose. Gandhi's specific gift is *action* and in that way we have to put our heads together for 'SAHNA VAVATU SAHVIRYAM' and find ways to initiate and evolve the 'line of action' which may change the situation—having faith in 'where there is a will, there is a way.'

I heartily congratulate the writer and our Editor and appeal to both of them, for a 'starting point' also.

*Indian Adult* **S.R. Pathik**  
*Education Association*

## gandhian basic adult education

The article of Shri D.C. Soni on Gandhian philosophy of Adult Education, which appeared in February 1974 issue is a 100% truth. It is thought provoking and also a great challenge, specially to those, who have worked for Gandhi and have known his "fad" on Basic Education. I was

## polyvalent education

I have been reading the *Indian Journal of Adult Education* with interest, pleasure and appreciation, particularly beginning last Fall. But from time to time—although seldom—my feelings have been mixed.

May I, therefore, be allowed to make a few comments on the article 'Polyvalent education—a revolutionary developmental device or the old system under new trappings,' published in March 1974 issue.

(1) Although I have tried

my best to understand the real standpoint and the right message of the author, I have been unable to get it. How to find the way out from apparent contradictions? Is he, for instance, in favour of the 'polyvalent approach' or not? On the one hand he says—and I *fully agree* with him—that the purpose of education is "not merely to provide students with degrees or prepare a person for a career, but also to make him fully capable of successfully facing all sorts of future problems in a changing world." On the other he emphasises—and here I have some doubts about the veracity of the statement—that "most citizens deem bread and butter issues to be the only important aspect of life... most such people seem to place greater emphasis on degrees and diplomas as passports to betterment of their prospects rather than on learning and education." But, let us get a step further. Even if these two statements were true, what should those who are "action minded" do? Should they—as the Ministry is trying to—do their best to organise courses "planned on the basis of the actual felt needs of and the problems relating to the participant's life and work" (is this not the most progressive trend in modern educational thought and practices?) or should they—as the author of your article is doing—cry that "alas" (!sic!) "more Shramik and Gramik Vidyapeeths are planned to provide courses to improve the job competency of workers leading to their increased productive ability and, hopefully simultaneously enriching their personal life"?! May I be allowed to say that I would be inclined to prefer the attitude of Government's officers, because I

have more esteem for "activism" and "boldness" (particularly in Indian circumstances) than to "scepticism" and "cynicism".

(2) The author says, as his own statement and belief, that the purpose of education is to lead the student to his "personality development in all spheres (so that he may become a 'complete man') as well as to help transform society efficiently. Surely such a process has to be personal, even intimate, many-sided, total and continuous." I cannot agree more with him! He also points out that "Polyvalent Adult Education is designed to serve the multifarious educational needs...of a worker so as to fully develop his personality and ensure better participation of his part in the community. Such education must, perforce, be integrated and interdisciplinary structured around the convenience and interests of the workers. Thus what is being attempted is a breakthrough in education, the evolution of a device to produce a "complete man" and to transform society." I have, as well, no difficulty in understanding or in supporting this interpretation of the 'polyvalent approach' to education. But where I start to have difficulties is when I try to find out the difference between his (?) definition of "educational purposes" which he advocates and the "purposes of polyvalent education," which he disapproves! How to differentiate between two equal definitions?

(3) The author, Mr. Rakesh Hooja, is certainly pointing rightly by quoting that "it was discovered that the Vidyapeeth had in reality been forced to limit

itself to offering indifferently structured job-oriented courses to people already in employment" and that "the Vidyapeeth has remained a mere technical skill imparting agency" and that the Seminar had concluded that "once the apathy of the workers and management has been overcome, classes may conveniently be held with great success at places of work." As it is obvious from the article, this criticism of the existing practices in the Vidyapeeth has been made by those who have tried to develop and implement the idea of polyvalent education. For once, there is no necessity for dissociating the "authorship" and the censorship", or the man who does the work and the one who is honestly criticising it. What is the real meaning and significance of making a "gloomy presage," like the following: "I fear they (such Centres) shall become as formal as our universities and that a multifaceted polyvalent approach which would treat each participant differently according to his specific needs would never become a reality." I think that many of us, readers of your Journal, would like much more to learn from the author what should be done to avoid the "future" he is depicting in such bleak colours, than to get the announcement of his prophecies!

(4) Finally, there is another side which I fail to grasp. I have always thought that Adult Education is a field for honesty and tolerance, for mutual respect and spirit of solidarity. Differences of opinion are not only inevitable but welcome—adult education should only get the advantage of identifying them and confronting them. But the spirit counts!

And in our oral educational practices—in printed words even more—the language counts! As well as the correct interpretation of everybody's standpoint—without betraying it or misquoting it. That is why I was bewildered by the expression “smack of madness”! Does this kind of “arguments” pay in Adult Education? That is, also, why I was astonished to find that “including *all* citizens in such comprehensive scheme of life-long education-recreation-socialisation leading to universal personality-building would be much more than any developing country could afford to incur”? Does it mean that the author is polemising with somebody (who is this “somebody”?) who has in mind and has planned to include all adult citizens in a system of life-long education, permanently, everywhere? How does one understand the remark about “the note of caution set forth in the report (of the Seminar) against (!) the spirit (?) of polyvalent education” than as a misleading statement, when everybody knows (who want to know!) that “an Evaluative Study of a Polyvalent Centre” prepared by the Tata Institute of Social Sciences, as early as 1969 stated: “It should be obvious from the overall assessment as well as from the suggestions made above that it is our view that the experiment of the Shramik Vidyapeeth can be considered to have met with a moderate success. It would be worthwhile to make the efforts to improve it and extend it”; the Report of the Regional Seminar, referred to by the author of the article, stated two years later: “The learning needs of adults in urban and industrial areas are polyvalent in

nature and hence there is need for polyvalent adult education to meet such needs. Pre-determined and pre-designed programmes or courses with stress on a single aspect such as literacy, vocational training, recreational activities or civic education, would hardly meet the need and therefore will generate little or no motivation in the adult participant for learning. The concept of polyvalent adult education was accepted in principle, and noting that polyvalent education was, in fact, already in operation under different nomenclatures in several countries in Asia, it was for the countries concerned to adopt and adapt this concept to their particular conditions and requirements. The Asian countries may set up a committee of experts which would include planners, educationists, administrators and others at the national level: (i) to examine the existing programmes in the light of the polyvalent concept; (ii) to recommend the introduction of the elements of the concept as far as possible to existing institutions, on the basis of field and depth surveys and studies; and (iii) to experiment with pilot project centres, based on the polyvalent concept *with a view* to the possibilities of *further* expansion. Unesco as well as national bodies should explore the possibility of applying the concept in rural areas”; regarding the polyvalent Adult Education Centre in Bombay, the Report says that “it was agreed that the experience derived from experimental project, though of relatively short duration, nevertheless indicates the *soundness* of the polyvalent approach.” So far nothing but quotations! Having all this in

mind, the question arises! who is actually ignoring the above mentioned Report? Those who are planning to open more Shramik Vidyapeeths during the Fifth Plan, according to the recommendations of the Report, or those who are trying to divert, discourage and dilute this trend?!

A last word. It is particularly regrettable and paradoxical that the article on polyvalent education comes just a few pages after Roby Kidd's article “Being, becoming, belonging” which is a marvellous advocacy of a many-sided, comprehensive, all-embracing approach to education, which comprehends “both the affective and the cognitive domains”, which “is living but also it leads to the life growing”, which is “self-discovery, self-expression, fulfilment”, which embraces “learning to be, learning to become, learning to belong, the celebration, the affirmation, the enlargement of the full consciousness, the search for that part of man that is truly human”, a deeply humanistic concept of “education for being — becoming — belonging. Education for living and for dying “although it is not” the kind of concept so admired by people these days, people who want to see all learning objective specified in unambiguous lucid statements of behavioural changes to be carried out in short manageable steps.” What a gap and a gulf between these two articles! On one side magnanimity, depth and wideness of spirit—on the other narrowness and one-sidedness.

*Ministry of Education, Asher Deleon  
tion, Government of  
India, New Delhi.*

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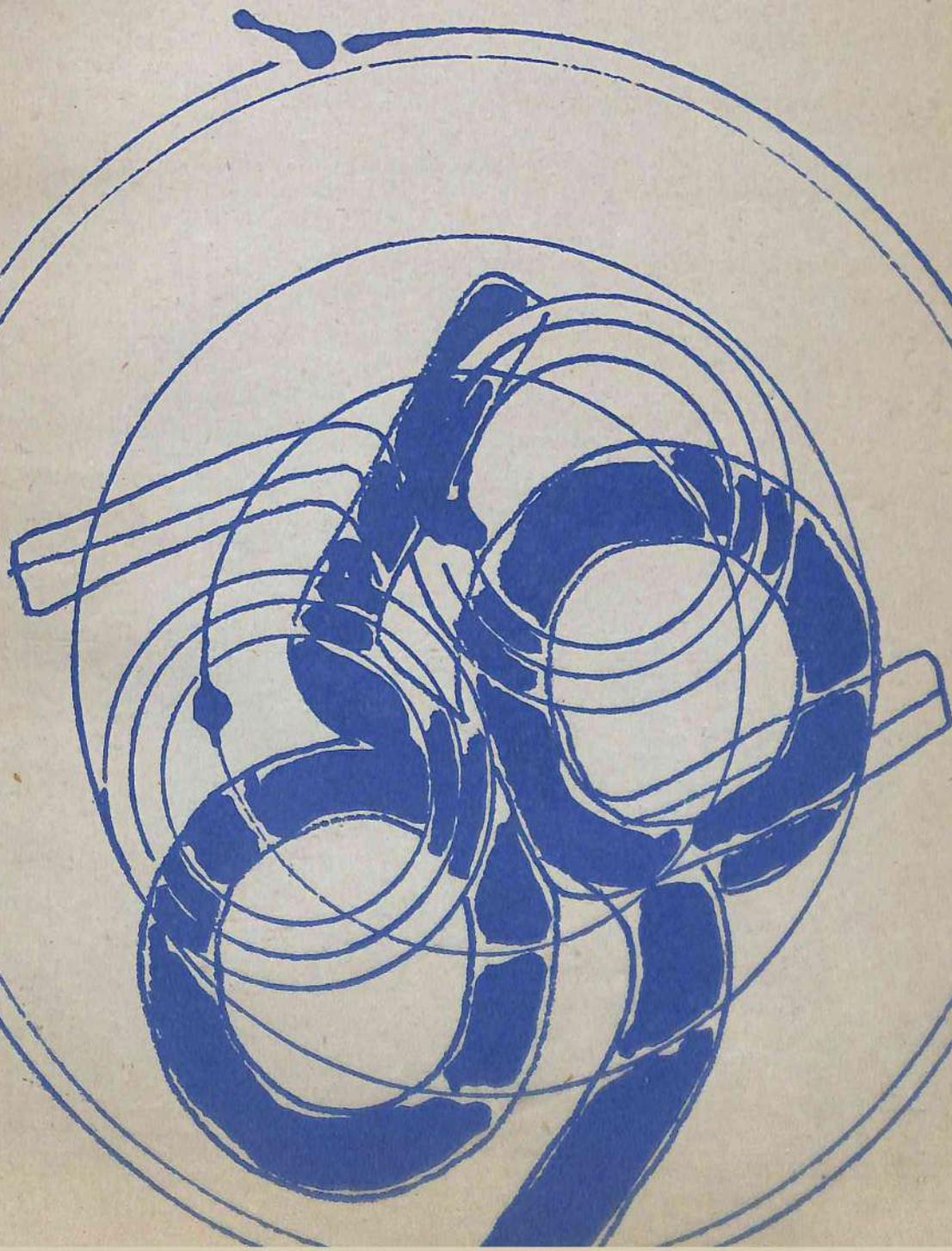
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# indian journal of adult education



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# international relevance

with which professional adult educators have already been familiar.

The resolution to set up a Centre in South-East Asia was a decision of consequence. This Centre will provide, apart from a clearing house and a library, an office for ASPBAE and would also serve as a regional office of International Council of Adult Education. Inter-regional training programmes using the existing facilities in universities and institutes of the region are also envisaged. All persons interested in international cooperation for growth of education and in training of professionals and field workers will welcome the proposal to set up the Centre.

The instrument proposed to be adopted by Unesco also needs to be viewed from the angle of relevance of its contents for The Third World concerns itself primarily with education of the illiterates. In this region too an awareness about the need for evolving a philosophy of life which would inculcate personnel and social discipline is increasing. Another concern of the planners in these developing countries is to increase the efficiency of workers on farm and factories. And finally, the stark facts of economic and social exploitation call for an entirely new vision of adult education.

Rather than undertaking a stand on the draft of the instrument it seems better to invite the readers to express their opinion on it. The columns of this Journal are available for publication of communications on this subject.

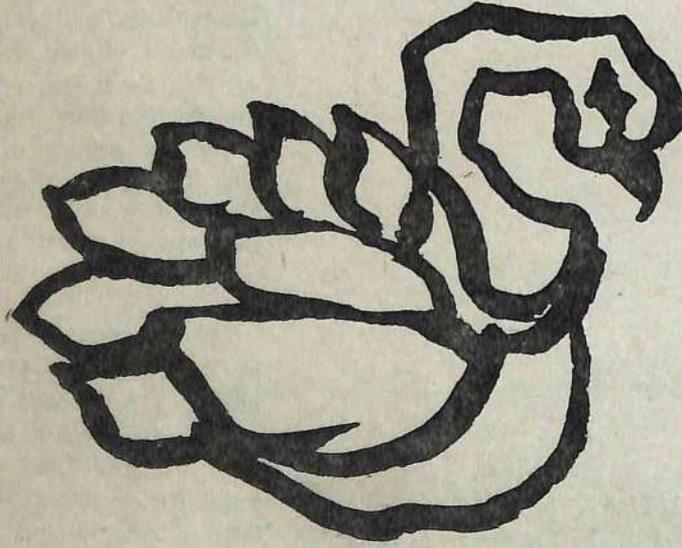
In this number we publish an instrument under consideration of Unesco for adoption in the Generation Meeting and a brief report on a Workshop organized under the auspices of the Asian South Pacific Bureau of Adult Education in New Delhi.

Just as the Edgar Faure report, *Learning to be*, makes a statement with international relevance, so the instrument, taking into account the major developments in the field of adult education in the last few years, designs a broad framework within which adult education may develop in all parts of the world.

Continuing the work done in the Seminar held in March, 1972

ASPBAE, in collaboration with Friedrich Naumann Stiftung of West Germany, organized a Workshop to examine two specific issues relating to training of adult educators. One, preparation of manuals for adult educators and, two, setting up of an Asian-South Pacific Centre for Adult and Continuing Education.

A review of the report of the ASPBAE Workshop brings out the truth of the wise words of Malcolm S. Adiseshiah who said in his inaugural address that due to its specificity and open-endedness it is difficult to design one manual for all categories of adult educators for all countries of the region. Indeed, the Workshop could proceed little beyond drafting some very broad guidelines



बुद्धियुक्तो जहाति उभे सुकृतदुष्कृते ।  
तस्माद्योगाय युज्यस्व योगः कर्मसु कौशलम् ॥

**The Bhagavad Gita**

**One endowed with wisdom casts off both good and evil deeds in this life ; therefore devote thyself to yoga ; action performed with perfection in skill is verily yoga.**

A yogi seated in a Himalayan cave allows his mind to wander on unwanted things. A cobbler in a corner at the crossing of several busy roads of a city, is absorbed in mending a shoe, as an act of service. Of these two, the latter is a better yogi than the former.

— Swami Vivekananda

# an international instrument on the development of adult education

*desirable that they make themselves familiar with the draft instrument which is reproduced in the following pages — Ed.*

## I. INTRODUCTION

It is now accepted that life-long education is the key to modern education, that it is a concept central to the entire educational process (considered as continuous throughout a person's life), and that all reforms should tend towards organization which is integrated both vertically (throughout life) and horizontally (covering the different aspects of the lives of individuals and societies). Life-long education is therefore the unifying principle.

Moreover, participants in the Third International Conference on Adult Education (Tokyo, 1972) who had at their disposal the conclusions of the very recent Helsinki Conference on Cultural Policies in Europe, saw clearly that cultural development and life-long education were two aspects of a single process, and that it was not only wise but indispensable to refrain from considering the one without having a clear idea of the other. Now, adult education is an essential ingredient in both concepts and in all practical approaches to the question and achievements therein.

When considering the problem which is the subject of the present study, we may echo P. Lengrand, who writes: "The very existence of a . . . system of adult education will have an impact on all educational thinking and practice, firstly in the university, then in secondary and primary school and beyond that in the family and the community

*The Third International Conference on Adult Education which met in Tokyo from 25 July to 7 August 1972, recommended that Unesco explore the possibility of taking normative action with regard to the development of adult education. The seventeenth session of the General Conference of Unesco (October-November 1972) considered this recommendation and decided that: "A preliminary study of the technical and legal aspects of the preparation of an international instrument on the development of adult education will be drawn up, taking into consideration the conclusions and recommendations of the Third International Conference on Adult Education".*

*Accordingly document 94 EX/12 was prepared and submitted to the Executive Board of*

*Unesco which decided to place this item, viz. "Desirability of adopting an international instrument on the development of adult education" on the agenda of the eighteenth session of the General Conference of Unesco to be held in October-November 1974.*

*Mr. J.C. Cairns, Director, Division of Adult Education, Unesco in his letter dated July 18 to the Editor of this Journal suggested that the draft international instrument be brought to the notice of the members of the Indian Adult Education Association and other readers to discuss the problems touched on in the draft.*

*There is hardly any need to stress the importance of this matter for all those involved in adult education. It is obviously*

in which it is applied".<sup>(1)</sup> And since cultured development implies organization of the socio-cultural environment in such a way that the individual's background may be a source of stimulation and enrichment, encouraging personal development and an open-minded attitude towards others, the thoughts on adult education which follow must also cover this important subject.

In the last chapter of this study, therefore, we shall set forth some conclusions which will indicate what is the specific task of adult education, as an all-important factor in life-long education and cultural development, and how it should be organised.

Consideration must also be given to the fact that the circumstances in which adult education, will be undertaken, vary according to the levels of overall development of the countries and the kinds of political system into which such education must be properly integrated. For the approach will be different according to whether the situation and aims are analysed in countries which are highly developed industrially, in industrial societies, in those on the threshold of industrialization, or in those with a traditional rural economy. Moreover, it is not a simple matter to find identical solutions for an entire post-industrial or industrial society, in so far as production

techniques ranging from traditional rural production to electronics and including craftwork and assembly-line production, may coexist within it. Each level has its own needs and order of priorities, and some States impose deliberate limitation of numbers, while others are obsessed with university qualifications, depending on their respective aims and traditions. The same is true of the developing countries: J. Ki-Zerbo<sup>1</sup> echoes the dictum of T. Mende: "The African has his feet in the neolithic and his head in the thermo-nuclear age".

The same degree of diversity is apparent in economic and political regimes and in the role which the State and voluntary organizations are expected to play in the organization of education.

Finally, owing to the variety of ways in which education in general and adult education in particular have developed, conceptions and even definitions of adult education also vary considerably, as we shall see, even in countries at the same level of development. In some cases it is the responsibility of the State in others that of voluntary organizations alone, in yet others, that of profit-making bodies; sometimes it is seen as the next logical step after school, a type of education, formal and structured, like any other except for the age of its students; sometimes it covers countless informal types of education.

The proposals for an instrument to be put forward in this study must therefore be specific

enough to apply only to adult education seen in the context of life-long education and cultural development, and flexible enough to concern the various States, whatever their political system and level of development.

## II. DEFINITIONS

We shall mention only a few definitions which, taken together, will give the reader a clearer idea of the various approaches to content and to methods.

From the past, let us first quote some remarks made by Condorcet in 1792 which are very much to the point today, and which show that education and culture are not a matter of handing out information but of slow development of the personality, tending towards participation and action: "To provide all members of the human race with the means of meeting their own needs, seeing to their own well-being, knowing and exercising their rights, and understanding and doing their duty; to afford each one the opportunity of improving his skills, fitting himself for the social tasks he may be called upon to perform, and developing all his natural talents; and thereby to establish practical equality among citizens and to make the political equality recognized by law a reality: this must be the primary aim of a national education system; and, as such, it is but right that the public authorities should provide it".<sup>1</sup>

<sup>1</sup> LENGRAND, Paul, Perspectives in life-long education, Unesco Chronicle, Vol. XV, No. 7-8, August 1969, p. 253 See also JANNE, Henri, "Permanent education, basic factor determining the fundamental reform of the education system" Council of Europe, Strasbourg, 1969.

<sup>1</sup> KI-ZERBO J., Histoire de l'Afrique Noire, Paris, Hatier, 1972, p. 610 et seq.

<sup>1</sup> CONDORCET, A.C. Report and draft decree on the General Organization of Public Education, submitted to the National Assembly, on behalf of the Committee of Public Education, on 20 and 21 April 1792.

Next, let us note two recent definitions :

(a) C.D. LEGGE writes<sup>1</sup>: "We interpret adult education to mean simply the education of adults, i.e. all the educational experiences of an adult and all the educational influences which bear on him. Our definition therefore includes formal classes in any subject, informal adult educational work in clubs and associations and the direct or indirect effects of the mass media; it includes liberal adult education, technical education, craft education etc. in the more developed countries and community development, literacy and health education etc. in the less developed areas".

The author emphasizes the diffuse and many-sided character of adult education and the number of bodies involved both directly and indirectly ; he sees it as part of a dynamic process.

(b) A.A. LIVERIGHT and N. HAYGOOD<sup>(2)</sup> take as the starting-point of their definition not the arrangements made by the community or by other bodies, but the motives and intentions of the adult who has his proper place in an educational process. They write : "Adult education is a process whereby persons who no longer attend<sup>(3)</sup> school on a regular and full-time basis (unless full-time programmes

are especially designed for adult) undertake sequential and organized activities with the conscious intention of bringing about changes in information, knowledge, understanding or skills, appreciation and attitudes ; or for the purpose of identifying and solving personal or community problems. Defined in this way, adult education would include : literacy and fundamental education ; vocational or job training ; education about health, consumer, and family problems as well as education about physical and personal development ; literature, art, drama, and other cultural programmes ; community development, social education, and community organization ; political and civic education ; religious or economic education ; and a vast variety of other educational programmes designed primarily for adults".

This broad definition covers all organized activities through which the adult acquires the information and training he needs if he is to fulfil his own aims and those of the community. Taken in this sense, adult education goes well beyond the bounds of the classical type of general education. It includes vocational training, the training of community leaders, civic organization and mass education, and it is provided in public and private education at establishments, in industrial and commercial firms, and by voluntary organizations. It can be acquired in and through active life.

Lastly, we must mention a definition put forward quite re-

cently by J. DUMAZEDIER. It seems important not only in itself, but especially because it appears in a chapter in which the author develops his research on a model of cultural planning. DUMAZEDIER writes : "Sociologically, adult education may be defined as action for the cultural development of society or its component groups, consciously directed towards the development of the economy, of society and of the human personality, by means of a system of continuous or recurrent learning which brings the culture of a member of society into contact with those kinds of culture and cultural levels which are most capable of encouraging such development".<sup>(1)</sup>

Reference to what was said of the "two aspects of a single process" in the introduction will show why we attach importance to this definition, which implies an overall approach, an organized system of learning, adjustment to various levels and an outlook based on scientific research.

One last remark before we end this chapter. Some readers will be surprised to have found no definition of an adult. Actually, all ideas of age are relative, and vary according to the society concerned. We should not therefore seek to define an adult by criteria of age. On the other hand, to be adult is surely to have reached the age at which one becomes socially independent and shoulders one's responsibilities.

<sup>(1)</sup> DUMAZEDIER, Joffre, *Sociologie empirique due loisir. Critique et contrecritique de la civilisation du loisir*. Sociology series, Editions du Seuil, Paris, 1974, p. 215.

<sup>1</sup> Training Adult Educators and the Diploma in Adult Education, University of Manchester, in "Notes and Studies", E.B.A.E., No. 21, November 1962.

<sup>2</sup> The Exeter Papers, Boston, 1969, p. 8.

<sup>3</sup> The words "or who have never attended..." might well be added.

An important phenomenon in the past generation has been the increased life expectancy of millions of people who cease working while still in full possession of their physical and mental faculties, and who then live through a long period of retirement when they have plenty of free time. We believe that there is no good reason for excluding education for these people from the mainstream of adult education.

Lastly, anyone who is alive to the implications of the scientific and technological revolution will realize that the idea of finality is out of date: our knowledge must be constantly reviewed, and we must try to maintain the psychological flexibility to stand up to "future shock". Seen thus, the human personality will never cease to develop.

### **III. BRIEF ACCOUNT OF THE HISTORY OF ADULT EDUCATION**

Adult education, as it is generally understood nowadays, was born of the needs created by industrialization: but other factors—the struggles for national independence and for cultural autonomy, the great religious, political and trade unionist movements, the secular idea, etc.,—have all played a considerable part in its development. The movements which began towards the end of the eighteenth and in the nineteenth centuries in Europe and in the United States spread, in the twentieth century, to countries which were in the process of becoming industrialized; when these countries are liberated, such efforts attain their full dimensions.

### **developments since 1945 and action taken by Unesco**

The founding States of Unesco declared in the Constitution "that the wide diffusion of culture and the education of humanity for justice and liberty and peace are indispensable to the dignity of man and constitute a sacred duty which all the nations must fulfil in a spirit of mutual assistance and concern". This meant that the development of adult education became one of Unesco's specific responsibilities.

Three international conferences on adult education have been landmarks in the evolution of ideas concerning its aims and application.

#### **the elsinore conference (1949)**

The war and its aftermath were still uppermost in all minds. More than half the 25 countries participating were Western European countries. The Conference expressed the idea that adult education should cease to be "a marginal enterprise serving the personal interests of relatively few people" and that, for reconstruction purposes, the population of developing countries and a high proportion of that of developed countries were in need of compensatory education; the need for social justice, peaceful coexistence and the development of community life was deeply felt; the ideas of technical or vocational training and of a literacy programme were not voiced during the discussions, but adult education was said to have the task of "satisfying the needs and aspirations of adults in all their diversity".

As a result of the Conference, however, international co-operation increased to an extent hitherto unknown; a great many regional meetings and experimental programmes were organized. Voluntary organizations grasped the importance of their role and developed their activities at international level.

#### **the montreal conference (1960)**

A far greater number of countries—51 in all—were represented at this Conference, and 46 international organizations sent observers. The theme was: "Adult education in a changing world". It had become obvious that life would henceforth imply adapting uneasily to a rapidly developing physical and social context; it was now seen that gaining mastery of this development was not a trifling matter, but an essential component of any nation's policy for coping with the pressures of change and improving the quality of life. To quote the final report, "Nothing less will suffice than that people everywhere should come to accept adult education as a normal, and that governments should treat it as a necessary, part of the educational provision of every country".

Proposals for a constructive strategy include: assistance to be supplied by wealthy countries to poorer countries, absolute priority to be given to literacy training, women to have access to all types of education, preparation for civic participation, recognition of the importance of the activities of voluntary organizations, systematic training of teachers at all levels in adult education practices, progressive definition of the

function of a professional adult educator, and integration of activities on school premises, and in universities. Above all, it is acknowledged that adult education should be considered as an integral part of the educational system as a whole.

### developments since montreal (1)

We now enter the period when the essential task of adult education is that of making changes understandable, controlling them and, if possible, influencing the direction they take.

Hundreds of millions of people have shaken off the yoke of colonialism and have gained independence; they have found themselves faced with the problems, growing daily more acute and urgent, of literacy training, rural development, and the training of all kinds of staff. It was inevitable that their initial approach should be based on the perpetuation of educational models inherited from the colonial era; however, activities in which the functional aspect of adult education was developed were increasingly undertaken, and in 1965 a vigorous impetus was given to such activities at the World Congress of Ministers of Education on the Eradication of Illiteracy, held at Teheran.

Although functional literacy has been criticized for attempting to subordinate the adult to the machinery of the economy and

the processes of production and paying insufficient attention to participation and to social and cultural involvement, there is a growing tendency to give literacy training in particular and adult education in general a slant so that they meet the needs of economic development, at the same time encouraging social progress, participation in the life of society and also in the transformation of society, and the development of culture.

In industrialized and developing countries alike, people have realized that there is a close connexion between social and economic reforms and the standard of education; as a result, greater importance is now attached to promoting widespread understanding of the development of science and to the need to combine theory and practice, work and study in order to combat unemployment, solve the problems raised by the migration of labour and cope with the needs for vocational retraining created by rapid changes in production methods; inservice training has been organized, evening classes have been developed, correspondence courses have been begun, laws have been passed under which workers have an allowance of time to return to school, and arrangements have been made to train and settle migrant workers. In short, a number of signs combine to suggest that the vision of life-long education is beginning, although somewhat spasmodically, to show signs of becoming a reality.

Now that life-long education is seen in this light, there is an increasing demand that adult education should form part of national development plans and

should interlock with primary education. Adult education is beginning to cope with new cultural, social and civic needs; universities have set up departments specializing in adult education work and in specific research into this subject. Worker's education organizations, trade unions, youth movements and women's movements, variously and independently, have organized activities not only at national level but at international level.

The audio-visual media, the press, television and especially radio have become vehicles of culture and education; international exchanges of ideas, experience and research have become a working reality. It will be seen, therefore, that various kinds of action have been taken to follow up many of the proposals formulated in Montreal.

However, on the eve of the Tokyo Conference, it was still apparent that despite widespread government action, financial support was meagre and subject to budgetary fluctuations — in a word, marginal. With a very few exceptions — some of the best-known occurring in the developing countries — the efforts made continued, on the whole, to benefit an elite which was already favoured by the educational system; and the marginal support that governments provided did not result in a structured, coherent inter-departmental policy for the promotion of adult education, except in a very few countries.

### the tokyo conference (1972)

Eighty-two Member States,

(1) See "A Retrospective International Survey of Adult Education", reference document of the Third International Conference on Adult Education, Tokyo, 1972 (UNESCO/CONFEDAD/4).

three non-Member States, five intergovernmental organizations and 37 non-governmental organizations participated in the Conference.

Since the analysis that follows is mainly intended to sum up the conclusions and recommendations of the Tokyo Conference and especially to reveal their practical efforts, it will be brief, merely setting out the objectives assigned to adult education at this Conference :

- (a) It is an instrument for promoting awareness, an instrument for change and socialization; by daily social practice, it aims to create an education society conscious of the values of a sense of community, it mobilizes energies; all individuals can and should be able to teach themselves and themselves be teachers;
- (b) It is an instrument for preparing the individual for productive activity and for participation in management;
- (c) It is an instrument whereby the whole man, including man at work and man at play, man in his civic and family roles, can achieve fulfilment; it helps to develop his physical, more and intellectual qualities;
- (d) It is an instrument with which to combat economic and cultural alienation and prepare the way for the emergence of a liberating, genuine national culture.

In short, adult education, when placed in a context of life-long education and cultural development, which are inseparable, aims to educate free

individuals in a changing society.

Another leading idea may be stated thus: adults who lack incentive to educate themselves and who are unaware of their needs or incapable of understanding them are, as a rule, those who have received little or no basic training.

The full significance of the recommendation of the Tokyo Conference concerning the preparation of an international instrument on the development of adult education<sup>1</sup> can now be seen: taking as their basic tenets human rights, the need to work for fellowship among individuals, to continue the process of decolonization, and to reiterate that a regeneration of education through the creation of conditions for life-long education required that circumstances be created in which adults could find an answer to their problems, in the context of their own lives, by choosing among a range of educational activities whose objectives and contents they had themselves helped to define, the Member States meeting in Tokyo expressed the opinion that the elaboration and adoption of such an international instrument affecting the quantitative and qualitative development of adult education as a whole was an important objective for the 1970s.

#### IV SITUATION AND TRENDS IN CONTEMPORARY SOCIETIES

Nowadays it is generally agreed that education must be

<sup>1</sup> See Final Report of the Third International Conference on Adult Education, Tokyo, 25 July — 7 August 1972 (document ED/MD/25), p. 43.

seen as a continuous closely-knit process which concerns individuals of all ages, and which should provide a framework for both school and out-of-school formal and informal activities.

To begin with, adult education is to be found in a number of *different situations*, which may be roughly described as follows :

- (a) an educational system exists which is considered to be stable and satisfactory, there is a high enrolment rate and a good balance between the number, quality and variety of qualified persons, on the one hand, and the requirements of the economy and the needs of society in general, on the other. In this case, the main functions of adult education will be determined by the increase in the rate of scientific and technical development and by the requirements of social and cultural development;
- (b) an educational system exists whose nature, structures, curricula, methods and quantitative and qualitative efficiency are found wanting by many people and seem to call for radical rethinking. In such a case, besides the above-mentioned function adult education has a corrective role to play in the immediate future, owing to the imperfections of formal education; it constitutes an important factor in the democratization of access to education;
- (c) the existing educational system is underdeveloped but has to meet an urgent need for schooling, which however, ;

unlikely to be met for a long time to come, since educational expenses are already a heavy burden on the national budget. In such circumstances, adult education, as the form of education most readily adaptable to the practical needs of economic, social and cultural development and aiming at the active sectors of the population, is the most directly and immediately profitable.

However, adult education should not be seen solely in relation to existing educational systems. We must therefore consider in greater detail certain *trends in contemporary societies* which justify its development.

As the report of the Tokyo Conference points out: "The scientific revolution and its technological applications were revolutionizing production, organization and qualification requirements, and they placed man in a dynamic situation where civilization was in a permanent state of transformation... In the scientific civilization, creative activity, the development of potentialities and the imagination were increasingly important. Activities which hitherto had no connexion with production now became essential: mass culture, instruction, consumption and services, public health, tourism, human relations, co-operation, leisure, a structural framework for life as a whole, happiness — all these were directly connected with the creation of the productive forces of progress. Hence the importance of investing in people. Any failure to seize the opportunities available for developing creative forces became an economic waste, once

man's inventions took over his simple production functions and lifted him out of the subsistence-requirement stage. Human development became an end in itself, since the limitations of human capital limited the progress of society much more than those of financial capital"<sup>1</sup>

Furthermore, there are serious disparities in scientific development among the various regions of the world, and these are slowing down development even further. They make it all the more necessary to invest in manpower.

Our destiny is taking on world proportions. In the words of Aim'e C'esaire, we are "open to every wind that blows". But it would be wrong to suppose that distances have been abolished thanks to the boom in transport and communications alone.

Under the present system of international relations, the economic, social and cultural gap between countries in the process of industrialization and those which are already industrialized is certain to grow wider, however, it may also be said that an internationalism of aspirations and values is simultaneously developing and will continue to develop, especially among younger people.

The speed and direction of the changes which occur are such that they are causing various kinds of imbalance firstly, in the relations between human beings and the natural world, and

secondly, among human beings themselves. Categories of newly underprivileged persons have gradually appeared; these include rural populations, especially in countries which are in the process of becoming industrialized, women<sup>1</sup> old people immigrants and young people who have not yet found their place in society. The gap between these individuals and the rest of the population is social and cultural as well as economic in nature.

In technically advanced societies, the individual must resign himself to the ephemeral: in the "lonely crowd" he can never have more than fragmentary relationships, he can never come face to face with others in the fullness of their nature, their character, their existence. This gives rise to a series of ills—neurosis, mental illness, anxiety, despair, divorce and suicide; indiscriminate consumption; the feeling that an ecological catastrophe is imminent; the taking of dangerous drugs; lack of communication between individuals and especially between parents and children.

Indirectly, these ills reveal the need to uphold the "quality of life" and to seek both material and moral values. In this connexion public authorities and voluntary bodies have a duty to provide education and to try to play their part in the changing relationships among individuals

<sup>1</sup> Adult literacy around 1970 (percentage) Comparison by sex

	Men	Women
World total :	28%	40.3%
Two extreme cases :		
North America	1.1%	1.9%
Africa	63.4%	83.7%

Ref; Learning to Be. Unesco-Harrap 1972, p. 287

<sup>1</sup> See Final Report of the Third International Conference on Adult Education, Tokyo, 25 July — 7 August 1972 (document ED/MD/25), p. 22, para 8 and 9.

and between the latter and society.

Life must be brought into the school; life-long education would be greatly facilitated if, from infant school onwards, the adults of the future were introduced to real life, given an incentive, treated as individuals and entrusted with responsibilities. We are thinking here of all those situations which children, adolescents and adults must live through. For in our view educational activities undertaken in schools are no different from those engaged in outside school. Education is born of close contact with reality: the environment is all important to the development of the individual. Activity is the basis of personal education and the acquisition of culture, and this means that experience is an essential part thereof.

*The influence of the mass media*, has increased a hundred-fold over the past few years; as a result, viewers and listeners are faced with problems of choice, organization, criticism and resistance to passivity. Reason is giving way to emotion. The mass media have not solved the language problem: some programmes use an elitist language which passes over the heads of large numbers of people. Often, the listener retains only that part of the programme which has been deliberately high-lighted. This may cause mental conditioning. On the other hand, the mass media try to give people an understanding of most human problems and contemporary values; unfortunately, because the media are commercially controlled and that they therefore aim at a very low common denominator they often

fail in this.

Tremendous innovations are under way in the field of mass communications: telecommunication satellites, regional receiving stations, community antennae etc. Cable television networks allow a great many communities to broadcast for themselves, thereby forging new links between their members and opening up increased opportunities for exchanges with the outside world. Videotape libraries will be set up like the book libraries we now have, and it will be possible to hire or borrow from the programmes covering all areas of education, literature and the arts. We are on the way to the development of audio-visual writing.

It is surely imperative that we should think about the development of communications and especially that of communication machines, that we should consider the responsibilities of public authorities in the development of new media and decide what new responsibilities should be entrusted to these media — which are the instruments for shaping cultural outlooks and attitudes and also, perhaps, patterns of thoughts — and how they should be administered. Until the mass media are planned and managed so as to discharge these responsibilities i.e. principally that of being instruments of cultural development and in particular of education, nothing worth while can be accomplished in this very broad field. In addition, it is important that we should think about the future role of books and the new place of reading in life-long education.

*The problem of leisure* affects both industrialized and developing countries. E. D. ZINSOU writes in this connexion: "We really have too much leisure. This state of affairs is the result neither of laziness nor of negligence, but is the logical and inevitable outcome of our socio-economic situation. This is one more reason for putting it to the best possible use" (1)

In the industrialized countries, leisure time has increased, and so has the need for it. Moreover, a category of individuals has emerged which has a great deal of leisure time, namely, retired people. This need for leisure is expressed by some as a need to escape from "active" life, and by others as a need to find opportunities of self-development outside the confines of one's work and one's various obligations. However, the organization of leisure raises a number of different problems, particularly from an educational point of view. The concentration of leisure time (in week-ends, paid holidays, etc) causes over-crowding in leisure time resorts: various forms of leisure cause or encourage the individual to be passive, and leisure is systematically exploited by commerce in a way which often runs counter to the aims of education.

The central idea behind any leisure policy should be the desirability of arousing in individuals and groups the wish to express themselves and enabling

(1) In "La Civilisation des Loisirs. Existe-t-il un problème des loisirs dans les pays en voie de développement?" Marabout Université, 1967 p. 228.

them to use the means of self-expression. A different system of values, a different morality, a different form of education will emerge.

## Summary

In the light of the foregoing, it would simply show lack of awareness to go on considering adult education as a luxury or an inessential activity: adult education is one of the essential factors in economic development and the indispensable lead-in to the process which must proceed from the development of human resources to the development of production and hence to the raising of the standard of living, which undeniably has a civilizing influence.<sup>(1)</sup>

"The individual and social cost of waiting for a gradual increase in the proportion of educated adults emerging from the regular school systems is too high for either developed or underdeveloped countries to tolerate."<sup>(2)</sup>

## V. DEFINING A STRATEGY FOR ADULT EDUCATION AS PART OF A PROCESS OF LIFE-LONG EDUCATION AND CULTURAL DEVELOPMENT

All the ideas developed above confirm, and sometimes carry further, the report of the International Commission on the

(1) Final Report of the Third International Conference on Adult Education (document ED/MD/25), p. 22, paragraph 11.

(2) PARKYN, George W. Towards a conceptual model of life-long education, Unesco, Educational Studies and Documents, No. 12, 1973, p. 23.

Development of Education, particularly when it states that the prolongation of education to cover all the stages of a man's life presupposes overall organisation of the educational structure: that education should take on the breadth of a genuine popular movement; that technical training should not be the sole responsibility of the school system, but should be shared by schools, firms and out-of-school education; that the rapid development of adult education both in school and out of it, should be one of the primary objectives of educational strategies in the next ten years: that all literacy training activities should centre on the countries objectives in the matter of socio-economic development: that under the new educational code the individual and the group alike are the authors of their own cultural progress and responsible for it; and that students, both young people and adults, should be able to take responsibility, since they are involved not only in their own education, but also in the educational undertaking as a whole.

*Rural areas* have their specific needs. Although large numbers of people each year leave to swell the ranks of the urban population, the great majority isolated farms; some continue to lead a nomadic life; most rural areas are growing constantly poorer, and their social and cultural structures are breaking down; if these areas are to benefit from technology, projects must be launched to train agricultural workers and keep them informed. Generally speaking, there is an urgent need that rural people should have the material resources

which will enable them to develop economically as well as politically and culturally. This presupposes a rural educational infrastructure, mobile if need be both for young people and for adults and an educational system whose dual function is training and action for development.

*In vocational training*, the approach should not be geared to a particular situation: rather, its scope should be broadened to cover human development in a more general sense, gradually merging into a process of life-long education on a larger scale.

As regards training in social, economic and political matters, we believe that the object should be to evolve a type of cultural leadership which is neither paternalist nor rigid; to the extent that the mass media are increasingly responsible for disseminating information, leaders should make it their aim in particular to see that information is properly selected and logically arranged and, if necessary, that it is accurate; their central role nevertheless remains that of fostering activity. In short, the aim to help the citizen form enlightened judgments which make democratic participation possible, and to avoid indoctrination and propaganda.

In cultural training the aim should not be merely to propagate a pattern provided by certain categories of society, but to foster the fullest possible understanding of the world and develop the form of aesthetic expression which is appropriate to each individual and each group, arising from their experience of life and their own particular values.

Hence, the recovery and restructuring of the cultural resources and means which those sections of the population that have been neglected by the traditional structures can use to fulfil and express themselves are today assuming special importance.

We repeat that it is important to relate the idea of leisure to adult education; in our view the aims and tendencies to be developed are the extension of educational leave, a more even distribution of leisure periods, the training of cultural leaders who will be responsible for promoting certain aspects of organized leisure activities—information, creativity and selectivity—and the establishment of a less commercial infrastructure for the organization of such activities. To be more precise, it would be a good thing to work out ways of dividing time between work and leisure so as to preserve the worker's psychosomatic balance as far as possible. A major step was recently taken in this direction by the preparation at the International Labour Office of an International Convention on Paid Educational Leave. The proposed instrument was to indicate that "the need for life-long education and training related to scientific and technological development and the changing pattern of economic and social relations call for adequate arrangements for leave for education and training in order to meet the new aspirations, needs and objectives of a social, economic, technological and cultural character" (1)

Lastly, we may note that

(1) Report of the Commission on Paid Educational Leave, International Labour Conference, 59th Session Geneva, 1974.

*psychological assistance* is available only to a minority; moreover, such assistance is seldom sought except in cases judged to be pathological. It must be pointed out that no real infra-structure exists in this field. We think that the aims should be to help parents educate their children; to develop an appropriate infrastructure in various fields (health, family planning, sexuality, drugs, etc.) and at various levels: and, lastly, to train educators and organizers.

## VI. FIELDS IN WHICH THE ADOPTION OF AN INSTRUMENT SEEMS DESIRABLE AND FEASIBLE (1)

The earlier sections of this study confirm the opinion expressed by the Third International Conference on Adult Education that normative action in the field under consideration is *desirable*. For it might be instrumental in bringing about: (i) full recognition and just appreciation of the importance of adult education for the satisfaction of individual aspirations as well as for economic development and cultural and social progress; (ii) solutions to the institutional problems raised by adult education: (iii) a proper balance between the various components of educational system. In this way a genuine regeneration of these systems would be made easier, and favourable conditions would be created for the development and imple-

(1) The objectives set out and the measures suggested in this chapter correspond to recommendations 1-4, 6, 8, 9, 12, 14, 16, 19, 20 and 23-33 adopted by the Third International Conference on Adult Education.

mentation of life-long education policies.

Despite the very wide variety of situations in which adult education has a role to play, it has been observed that common denominator undoubtedly exist, and these make normative action *feasible*. It might, in particular, proceed along the following lines:

### a) general policy

The primary objective is to guarantee for everyone, in accordance with Article 26 of the Universal Declaration of Human Rights, the right to education, and more specifically to adult education. Therefore, conditions should be created, in which this right can be exercised effectively.

The general purpose of the measures to be taken is to promote the full, as part of a life-long education policy, to the many-sided development of the whole individual, throughout his life-time. By "promote", we mean, as the case requires: stimulate, make legally possible, plan, co-ordinate, and provide financial support for.

Such a policy aims to generate in the adult those aspiration, attitudes, judgments and independent and enlightened forms of behaviour which will help him to adopt to change and to participate in the development and transformation of society. Therefore, the adult should be involved and should play an active part in all stages of the planning, execution and appraisal of the educational process which concerns him.

In terms of social justice, high priority should be given to acti-

vities which are designed to meet the educational needs of under-privileged groups and sectors of the community, in particular illiterates, women handicapped persons, refugees, the unemployed, immigrants etc., with a view to improving their living conditions.

The educational process should start from the needs inherent in people's circumstance and their individual aspirations; it should be integrated with the activities of daily life and lead on inevitably to other forms of educational activity so as to avoid any possibility of a relapse into ignorance. This presupposes a well-knit structure comprising an introductory stage (which may be pre-literacy and literacy training, or, alternatively, a basic general education) and more advanced stages, i.e. the development of various potentialities and aptitudes, and also refresher courses and vocational retraining courses.

The following measures give prior, but not exclusive, attention to the promotion of adult education as regards structures and establishments, administrative organization and financing, the role of the participants, educators and methods.

## **b) structures**

It appears desirable that adult education structures should be stable, flexible, decentralized but co-ordinated and—with a view to life-long education—such that they can be integrated into overall educational systems which aim to bring the educational systems in line with the objectives of development.

Despite the fact that countries

differ in their political and administrative organization, it is possible to identify a general need—the need to set up co-ordinating bodies at various levels, composed of the representatives of political authorities and of organizations and establishments concerned with adult education. Such bodies might facilitate consultation and that mutual understanding which is so necessary, at both conceptual and operational levels, and might provide a stimulus for fresh activities, particularly those connected with objectives of economic, social and cultural development.

In order to facilitate the functioning of the co-ordinating bodies, it might prove advisable to set up establishments which would have the purely intellectual task of examining the problems raised by the development of adult education and carrying out research into them, especially into contents and methods appropriate to the educational needs of adults and the way in which they learn. Such institutions might also evaluate what has been done, carry out documentation work and participate in statistical data collection, as well as in the development of information, consultation and educational guidance services designed for adults.

Furthermore, it may be thought advisable to encourage the founding of adult education associations which would bring together, on a voluntary basis, workers' education movements, trade union organizations, co-operative, women's religious and youth organizations, and establishments and individuals specializing in the field of adult education, so that the various

educational interests should all be brought before the competent authorities, establishments and bodies.

In order to rationalize adult education processes, consideration might be given to making more efficient use not only of existing educational infrastructures and services but also of infrastructures for culture, sport and leisure. Multiple use of facilities would make consultation and guidance activities possible and would enable adult education specialists to be placed more effectively.

It is also desirable that certain special cases—the army, hospitals, approved schools, etc. — should be incorporated in the adult education system and that educational and specific activities should be co-ordinated within such structures.

## **(c) establishments, organization and financing**

In most countries, the schools can be helped to play their part — an important one—in the expansion of adult education by seeing that they are awake to the practical problems of the community and are concerned in solving these, by establishing direct and regular contacts with the adult population and by preparing teachers to cope with the special circumstances surrounding such work.

Secondary (particularly specialized) and higher educational establishments should play a greater part in preparations for adult education activities and in their execution — for example, through the extension and decentralization of their own activities,

and also through their involvement in (i) research into the conditions in which adult education must be carried on and into the nature of the adult learning process, (ii) identification of original forms which adult education might accordingly adopt, and (iii) training of specialists for this type of education.

The possibility should be borne in mind that people should themselves cope with some of the educational problems facing them. Voluntary organizations have very wide range of experience and skills to offer which would be of use, as well as effective means of taking action, and it would undoubtedly be worth while to provide for their recognition by legislation or by other appropriate means; such recognition should be backed up by systematic State support.

In view of the rapid increase in the cost of school education and the burden which it places on national budgets, recourse to adult education, which gives immediate results, would be worth considering whenever one of the problems facing society demands a solution of an educational nature. Similarly, the funds in public educational budgets might well be reallocated in favour of adult education. However, it would be a good thing for bodies responsible for adult education to be self-financing and to carry on economic activities.

It is also desirable to establish co-operation between the public sector and commercial firms, either by legislation or by contracts. Firms which benefit from adult education should agree to

set aside time for it in their work schedule, devote a set portion of their budget to it and encourage the professional and social promotion of those who are educated.

#### **(d) time for education and circumstances of the participants.**

An effort should be made to find the best methods of co-ordinating adult education with the lives of individuals, both at work and at leisure, and these should be adopted. It might, for example, be possible to set up a system whereby each individual would be entitled to a certain amount of time for education which he could use, at his convenience, throughout his life. Each individual would draw on this total time allowance for leave or time off, for education, while continuing to lead a normal life and to provide for his family. It would nevertheless be wise to organize the distribution of alternating periods of work, education and leisure, so that adult education may fit smoothly into the running of the economy and so as to adapt education and work time-tables to individual needs, rather than adapting the individuals to these time-tables.

As far as adult education is concerned, duration, premises, facilities, leaders, and more fundamentally still, the idea of leisure (and attitudes towards it) all afford scope for development. In a growing number of countries, leisure places an obligation on adult education to provide individuals with the material, psychological and intellectual resources needed in order to cope with this important part of their existence

actively, independently, and in spirit of fellowship. Preparation for the period of retirement also falls within this category.

It is desirable that the transition from one form of adult education to another should be easy and that bridges should be built so that unqualified persons can enter the formal system. The qualifications and diplomas obtained through adult education and the value of experience acquired through carrying on a profession or performing other kinds of activity should be recognized.

#### **(e) staff for adult education**

Adult education urgently requires specialists of a new and particular kind: planners, organizers and administrators, research workers, educators and leaders, who need specific training. The course of training for educators, whether professional or otherwise, should include a common core of studies which will help them to achieve a multi-disciplinary outlook and introduce them to the idea of self-monitoring education, in which their role would be to provide stimulus, encouragement and advice. They should also, as far as possible, have the same background as those whom they will later be expected to teach. However, adult education would be in danger of becoming ossified if those working for it were not themselves constantly reinvigorated; they, too, should have alternating functions. This means that they must have a special status. It would also be profitable to make greater use of the recruitment possibilities to be

found in public service systems for adult education.

#### (f) methods

It is advisable to recognize and encourage the use of the self-education method, backed up by such means as educational consultation and guidance services, public libraries, correspondence courses, etc. and to take steps to ensure that educational systems give students a suitable preparatory synthesizing and integrating work and introduce them to methods of programmed learning.

Since modern techniques for the dissemination of information to groups or individuals are essential tools in adult education steps should be taken to see that educational considerations are kept in mind — and, indeed, brought to the fore — in a situation in which the audio-visual media are often dependent upon the industrial sectors. In any event, regular working relationships should be established between organizers and producers of audio-visual programmes on the one hand and specialists in adult education on the other.

While sophisticated technological media should be subjected to systematic critical appraisal, their development and use for adult education should none the less be encouraged, while care should be taken to rationalize both their use and their production.

It is also important to remove obstacles to the acquisition and use of audio-visual material, to standardize equipment and to use that which is least expensive. Among less expensive equipment, the production of

books, magazines and, in more general terms, material printed for educational purposes should be particularly encouraged.

#### (g) international co-operation

The usefulness of international co-operation in the field of adult education no longer stands in need of proof. It should therefore be further developed, by such means as (i) encouraging consultation on specific problems of common interest, (ii) placing on the agenda of regional and international meetings held at regular intervals on the subject of the development of education the particular problems faced by adult education, (iii) launching multinational studies and research projects, (iv) establishing or strengthening centres or services which could take their place in an international system for documentation and for the collection and processing of comparable data, and (v) giving support to the activities of regional and international associations which deal with adult education.

An effort should be made to conclude agreements with a view to setting up systems of international units of value in the fields which lend themselves to this, such as fundamental education, language teaching, etc. In addition, it would be useful if States could reach agreement on the standardization of the facilities needed for adult education, co-operate in producing educational material (particularly multi-media programmes, with a view to reducing their cost) and set up international exchange centres for these purposes.

On the one hand, radio and television can increase their broadcasting capacity considerably by means of communication satellites and, over and above their strictly educational uses, the information which they are able to transmit constitutes an extension of adult education; on the other hand, the cost and use of satellites raises serious problems; an effort should be made to overcome the existing difficulties by means of international agreements.

Our remarks on this subject would be incomplete if we did not call attention to the fact that it is as much an act of justice as of wisdom to continue to give effective support, either by bilateral action or through international bodies, to the educational activities of countries where the proportion of illiterate adults is still high. It is important, however to guard against the possibility that foreign aid might take the form of a straight forward transfer of the structures, curricula, methods and techniques used by those providing assistance; on the contrary, it should consist in encouraging and stimulating endogenous development in the countries concerned through setting up appropriate establishments and well-planned structures which are suited to the special circumstances of these countries, as well as through a training specialized staff.

Similarly, it would undoubtedly be desirable for the Member States concerned to do more towards encouraging the specialized international organization and competent financing agencies to take action directed towards the objectives of adult education.

# asian-south pacific centre for adult and continuing education

## report of a workshop

The Asian-South Pacific Bureau of Adult Education (ASPBAE) with financial assistance from the Friedrich-Nau-

mann-Stiftung of West Germany organised a Workshop in New Delhi from May 4 to 11, 1974. This was a follow-up of a Semi-

nar held in March, 1972, under the auspices of ASPBAE. The subject was Training of Adult Educators. The Workshop attempted to prepare a plan for setting up an Asian-South Pacific Centre for Adult and Continuing Education and to design guidelines for drafting a manual for training of adult educators.

There was a thought-provoking inauguration function on the 4th May in which Dr. M.S. Mehta, President of the Indian Adult Education Association, presided and Dr. Malcolm S. Adiseshiah delivered the inaugural address.

Mr. S.C. Dutta, Chairman of Bureau, in his welcome address said that institutions of formal education today were centres of *status quo* and therefore of stagnation, indiscipline and elitism. They could hardly serve the needs of a developing society which required skilled labour force both for farm and factories. Mr. Dutta said that education must provide for more relevance to the life situation than mere emphasis on academic programme. In this task of transformation, adult education would have to play a vital role by laying emphasis on functional education of farmers, workers, artisans, etc. Mr. Dutta emphasised that ill-trained and the untrained adult educators could not serve the needs of developing countries. Thus the training of adult educators was of crucial importance to adult education.

### participants in the workshop

1. **Dr. T. C. Lai**  
Director,  
Deptt. of Extra-Mural Studies,  
Chinese University of Hong Kong  
*Hong Kong.*
2. **Dr. (Mrs.) Elizabeth Sommerlad**  
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3. **Mr. Marcos S. Ramos,**  
Regional Adult Education adviser,  
Unesco Regional Office for  
Education in Asia,  
*Bangkok-11 Thailand*
4. **Mr. Yusep Fathuddin**  
Sekretaris PTDI Pusat,  
Thaman Cut Mutiah I,  
*Jakarta, Indonesia*
5. **Mr. A. C. Vizconde**  
Programme Director,  
Foundation for Youth Development  
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*Manila, Philippines.*
6. **Mr. B. Pflug**  
German Adult Education  
Association,  
Bonn-Bad Godesberg,  
*West Germany.*
7. **Dr. M. S. Mehta**  
President,  
Indian Adult Education Association,  
Seva Mandir,  
*Udaipur (Rajasthan)*
8. **Dr. M. S. Adiseshiah**  
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Madras Institute of Development  
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9. **Dr. Amrik Singh**  
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11. **Dr. S. Kapoor**  
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12. **Dr. Balwant Reddy**  
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14. **Shri Anil Bordia**  
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17. **Mrs. Bimla Dutta**  
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## inaugural address

M. S. Adiseshiah

The double objective of this expert meeting is to prepare a

Manual for adult educators and a blueprint for Asian Regional Institute for Adult Education. As we now turn to address ourselves to these two tasks, I would like to set-forth the parameters within which we should function.

### **adult education: its specificity**

First, there is an infinite specificity in adult education as to place and time. The educational needs of adults in Australia, New Zealand and Japan are specifically different from those in Bangla Desh, India and Indonesia. The specificity here relates to the level of economic development of the country. Even as between the less developed countries, the adult educational needs of Sri Lanka, Korea, Singapore, and China with a near complete primary education system are different from those of Iran, Afghanistan, Nepal, Pakistan and India with a majority of uneducated and illiterate youth and adults.

This spatial specificity of adult education also refers to the urban rural dichotomy, the industrial agricultural differential, the forest, fishing, hill and plain location of the various communities, within each country. The time specificity of adult education has reference to the differing educational needs of youth, adolescents and adults and in the developing countries of Asia to the massive numbers of primary school dropouts which result in there being more primary school age children being out of school than in school. Any programme for producing an adult education manual or developing a regional

Institute must be based on this all pervading specificity of Adult Education.

### **its open endedness**

Second, there is the open endedness of adult education. The adult is being educated in a number of places; through the political parties, in the temple, mosque and church, in the home, the school, the place of work, the farm, factory, office, hospital, the university, the laboratory, the group to which he belongs, the trade union, the cooperative, the farmers and agricultural labour organisations, the professional associations, the club and the sports bodies, the theatre, the cinema, the radio, the library and the newspapers. Adult Education comprehends these vast unending learning opportunities and whatever we plan in the way of a manual and a regional institute must conserve and strengthen this open ended character of of Adult Education.

In relation to this open endedness there are three particular tasks incumbent on those of us involved in adult education.

*Multiply*; The first is to do everything we can to multiply these educational avenues and do nothing to regiment or control them in the name of rationalisation and coordination. Recently in the various states in this country there is a trend to increase the number of governmental corporations and farmer's agencies. As an economist I have some regrets that we have established a Dairy Development Corporation, a Poultry Development Corporation, a Shipping Corporation, a Cashew Corporation, District Development Corpora-

tions as well as Fishermen's Cooperatives, Farmer's Service Agency in addition to the SFDA, MFAL and DPDA etc. My regrets being due to the consequential increase in overhead costs—the non-development expenditures—and scarcity of our managerial manpower. But as an adult educator I welcome this multiplication of agencies because they are increasing the participational learning experiences open to people. Our Manual and Institute must be planned in a similar open-ended way to meet this multiplicity of learning opportunities.

*Package*: The second task is to introduce educational components in these multitudinous centres and programmes. I have referred to them as learning centres because in each of them there is some learning experience to be had. But such learning may be positive or negative, or a bit of both, giving rise to various lacks and distortions in the end products.

Here I am thinking of two lacks that adult education—the manual that we are planning and the Institute we are blue-printing—can help to fill. The first is to provide short term courses or, better still, an educational methodology course within the existing training programmes. We have an infinite number of training exercises in each of our countries, states and cities—for co-operators, for farmers using high yielding varieties, for medical and para-medical personnel, for trade union leaders, for political party cadres. What is needed is to run seminars or short training courses for the trainers and teachers in these courses on

learning methodologies or for such a course to be built into the existing training programmes. Second concurrently and possibly more effectively, there is need to programme and produce learning and teaching materials for all these many programmes and courses. This material is not for the leaders or trainers who are being trained but for use by them in their work with landless labourers or harijans or farmers or the rank and file of party membership or members of the cooperatives or trade unions. The Manual and Institute must provide the backstopping for this effort.

*Deprofessionalise*: A third task that emerges from the open endedness of adult education is to reconcile two opposing imperatives—to deprofessionalise all attempts to professionalise this spontaneous, open-ended, voluntary and infinitely varied sector of life on the one hand and to organise and institutionalise those limited areas of adult education which need such professionalisation on the other. The trend to professionalise, every part of life—housing, health-care, nutrition and home life, and even primary and secondary education—is accelerating to the point where the creative abilities of people to look after themselves, to learn by doing, to improvise and innovate are gradually being eroded. The professionals in turn are becoming a closed coterie talking a language which no one outside, and sometimes they themselves, can understand and what is worse, establishing monopolistic positions which not only puts their services beyond the reach of the common man but leaves vast masses of the people

and their needs unattended to.

One of the useful lessons that we can learn from our near neighbour, China, is the way in which it has followed the democratic, openended, participative way so characteristic of adult education, in making the people at the commune level responsible for all life which concerns them—the barefoot peasant doctor who provides every one with the ordinary normal health services, which is 90 per cent of the health needs of every family, the production brigade which is responsible for agriculture, diary farming, animal husbandry, on the one hand and manufacturing activities ranging from steel and fertiliser production to textiles and house building on the other, the organisation of a comprehensive system of primary, secondary, tertiary and adult education which is work-based and vocation oriented and the break up of the science and technology monopoly of the old *Academica Sinica* by organising science societies at the commune and village level.

In this system the teacher is also the factory foreman and the professor at the same time a farmer and the student learns simultaneously from the class room and books and from the shop floor and farm which are part of the school and college campus. Above all, it is such a deprofessionalised system which assures that the decision making processes and powers are not concentrated in the hands of a small number of professional politicians who inevitably represent their class and property interests but are in the hands of the broad masses of people who know what they want and are

constantly learning how best to meet them. Any programme for developing a Manual for Adult Education and a plan to set up an institute for Adult Education must be based on this principle of deprofessionalised and decentralized processes of teaching and learning.

## training

Equally Adult Education has certain limited areas where there is need for professionalisation. The 1972 Seminar identified for the Asian-South Pacific region three categories of persons as being in need of professional training: field workers, supervisors and administrators. Here we probably need to distinguish between the countries and states which have or are planning an administrative structure and career service for overall adult education services and those situations, as in this country, where the whole effort is dependent on voluntary and part time services. I am here using the overall adult education service as the 1972 seminar report does, to refer to a small but decisive part of the total learning programmes and processes which are at work at all times in all countries.

For both types of countries I would like to indicate certain training or professionalisation priorities. The first priority is to train people who can produce teaching and learning materials for all the multifarious adult education programmes that are currently in operation. These programmes need graded and functional teaching and learning materials which is a highly skilled task calling in each case for technical knowledge. Each local

programme calls for a materials specialist who is essentially a programmer and who, using all the specialised expert resources available, will be responsible for the production of mimeographed notes, charts, graphs, sketches, designs and maps whose content will be related to the needs and profile of the learner who is subject of the learning process.

The second priority is to train in the use of these teaching and learning materials the various trainers of field workers. It will be noticed that among the learning groups that I have listed, I have not categorised literacy training programmes. This could be added to the list as each individual country or situation wishes. For me however the literacy skill is an integral part of each programme and so I do not see the place for separate literacy classes *per se*. I propose turning around what the 1972 seminar report calls "Kinds of adult education" — remedial education, continuing education, vocational training, education for assuming social responsibility, training for individual development, health and hygiene education, family education, education and rehabilitation of special groups — and insert educational content into the existing multitudinous learning programmes.

I see the task of adult education not as one of setting up separate and competing courses and programmes, but of introducing the educational content and methodology into existing courses and programmes through training the programmers who will produce the varied and varying teaching materials and training the trainers in their use.

## the manual

Against this background, I would propose the following priorities for the work programme of the Asian South Pacific Bureau of Adult Education in regard to the two tasks that we have gathered here to work upon. The first relates to the Manual for Adult Educators. In regard to the Manual I would propose that a long term plan for a series of manuals rather than a single manual be visualised, with agreement on an order of priority in the preparation of manual series. The first priority might be given to a Manual for adult education of the poor majority living in the rural areas of the less developed countries of the Asian and South Pacific region. This manual should set-forth the pedagogic, psychological, agri-technological, managerial and organisation contents and steps in building (a) the adult education components.

A second manual that is needed is in relation to the adult education needs of the urban poor in the less developed countries of Asia and South Pacific. Here the adult education programme must be woven into the activities of the various bodies fighting the growing urban poverty. The Manual will deal with the principles, methodology and illustrative programme, curricular content and the means of producing materials and training in their use.

The third manual that we might turn to after work of the first two is completed, is how updating adult education programmes should be organised for industrial workers. Here the

manual will have to address itself to the same elements as the first manual — pedagogical, technical, civic, cultural, economic and scientific — and the principles of organisation and management involved in the factories, enterprises, managers, trade unions, universities, engineering colleges or the government in building varied and varying adult education programmes to meet the changing and multiple need of the working man.

The main point that I am trying to make here as I did at the start, is that in working on the Manual for adult education workers, we should take account of the specificity of each adult education situation and plan for a series of manuals for broadly similar situation rather than a single manual which will have to be at such a level of aggregation and generality that it will apply to no individual country or sector or group and be of little use.

## the institute

The other task of this meeting is to blueprint the Asian Regional Institute of Adult Education. The specificity and open endedness of adult education indicate very clearly the direction in which the Institute should be planned. The 1972 seminar report has suggested that the Institute should have three sections: (a) library, documentation and clearing house; (b) research; and (c) training. The first two section — clearing house and research are the essential infrastructure of any regional institute. That is where we start, with a service which tells us what is taking place in our region and other regions, what are the new developments, what are the bottle-necks and what are the break-throughs in adult education. Parallely there should be an ongoing programme of research which would be either cross national (such as adult education needs of urban slums in the region or the underlying

forces that make for effective or ineffective agrarian reforms and their relevance to adult education) or specially local (such as the development package for the hill tribes of Madhya Pradesh or the methodology of teaching school dropouts in Bangkok).

On the basis of this infrastructure of documentation and research the training programme of the Institute should be planned. Here the major question is whether there should be a single monolithic regional training institution for all of Asia and South Pacific or whether the Institute should be primarily concerned with promoting, financing and helping in the programmes within each country of the region. A second question is whether the training should be addressed to adult education as a component in existing or new development oriented training programmes, or whether we should develop self contained adult education training programmes. My own answers to these two basic questions are reflected in my view of the nature of adult education that I have tried to outline earlier. UNESCO's experience of regional training institutes — ASFEC, CREFAL, the International Centre in Prague and the Polyvalent Adult Education Centre in Cuba demonstrate the economics, the values of inter-action of different specialists and nationalities, and to some extent the efficiency of regional institutes when covering areas which have a minimum common characteristic — such as language. On the other hand in terms of buildings, their upkeep, staff and trainee expenses they are resource demanding and tend to develop vested interests and a certain degree of programme stagnation and rigidity, which is contrary to the genius of adult education. In Asia where we do not have a homogeneous region even in minimal linguistic terms, I am inclined to recommend that the Regional Institute should respond to the infinite specificity of adult

education and should be a centre for promoting, financing and helping in the programming of the many training efforts in the region.

### the stakes :

I believe that in adult education we are dealing with the educational wave of the future in our region. It carries within it the seeds of reforming and regenerating the entire educational profile of Asia — profile which is being blurred and defaced today, and of making the people not simply the object of development which they are today but the subject, which shares, participates and decides on what kind of development which is theirs and which will take place. Against these high stakes which adult education represents for us, let us turn to the humbler tasks entrusted to us — the Manual and Institute — and plan them to subserve the end purpose of Adult Education — which is a happy and productive person and a peaceful and just society.



## presidential speech

M.S. Mehta

As President of the national organisation of this country, the Indian Adult Education Association, I extend on its behalf our warm-hearted welcome to you, friends and colleagues, who have spared their time to come here from long distances to labour in the pursuit of a great objective an important aspect of social reconstruction which indeed deserve much more thought and attention than it actually receives. We are a small but devoted, fraternity which is engaged in exploring the means of strengthening the fundamental concepts of and building up appropriate Organisations to support the philosophy of Adult Education so that it occupies the place in the national plans of development which it should.

But we know what an uphill task it is for us.

You have assembled here for the two fold purpose of preparing a manual for the training of Adult Educators and also for drawing up a scheme for establishing, if possible, a Regional Institute for Adult Education to serve our countries in this continent. When we talk of a manual let us not forget the very wise words which the Chairman of ASPBAE has uttered just now. "The Institutions of formal education are the centres of *status quo*". The word manual usually denotes rules, regulations, principles and procedures. I do not believe you have such a manual in mind. I feel sure you are thinking of general guidelines which the leaders of Adult Education will develop from time to time. It may be that our proposed Manual will in fact, be the basis of a series of manuals and general suggestions for Adult Education. As it is, our educational system suffers from rigidity both in its contents and methods. The learner has to be tailored to a system which kills initiative, smothers personality and hampers the individual's free growth. It works under a condified system, as it were. Should we not devise a manual which will escape this evil? Adult Education, much more than the traditional school and college system, has to move away from all rigid forms and formulae it is to serve the purpose we have in view. It will not have a universal system to be used for all people in all situations in different countries. The very opposite should be our aim, method and programme.

In the triangle consisting of the teacher, learner and knowledge all the three are important and all of them have an active role to play. The methods, the approach and the purpose will vary from country to country, province to province and even from village to village and from

vocation to vocation. None of the three angles of the triangle should have a passive role. The learner and the teacher will be in a constant two way dialogue, and the local needs situation, environment and tradition of life and culture will determine the course and direction of the adult education programme, if it is to produce the desired result. Freedom, flexibility and adaptability will be the determining watch-word for the adult educators. For this reason it will be perhaps wise for us to give our proposed manual a different significance from what it ordinarily has in our dictionaries!

Adult education, as it is now needed, is expected to develop a comprehensive scope and a very wide purpose not only in contents and methods but also in its objective. Our endeavour covers at one end the illiterates, semi-literates and school leavers and at the others those who have had the benefit of a highly specialised, sophisticated education and have the constant need and desire to keep it upto-date. Adult Education may even have to take into account the learner's personal, social or professional problems and to seek their solution, it would respond to them as far as possible so that they become alert citizens, with happy family life and enjoy better economic and cultural conditions. A manual which will be helpful in a thousand different situations should be our aim and objective. Thus we should see to it that this expression, "Manual" for this reason does not mislead either the general public or those who are involved in adult education.

Training and Adult Education trainers are needed for all sections of society. As resources allow and as competent persons whose minds can grasp the purpose and philosophy of adult education are available, the programmes of this non-formal study process should be offered

to as a large number of people and to as many sections and vocations as possible. Without an extensive, imaginative and a varied scheme of Adult Education all our development plans are likely to give meagre return. Besides, quite a large proportion of the huge amounts of money which are being provided for primary education will continue to be wasted until the education of the adult parents is taken in hand on a wide scale.

I sincerely wish and hope that your discussions will result in producing a viable, strong and effective scheme for the establishment of at least one Institute of Adult Education for study, programming, research and training in this subject of most vital significance. It should be well equipped with literature, journals, documents, audio-visual aids and other material. It should act as an information centre and a clearing house of ideas. Its services should reach if possible, all member countries. It should continuously organise a series of workshops and seminars on various problems, facets and subjects relating to Adult Education and adult educators. Representatives of member countries should be regularly drawn to it for training, retraining and discussion purposes. It should be established and maintained with foresight and dynamic urgency as an act of faith.



The delegates were divided into two groups, one each to prepare the outline of a manual and to prepare a blueprint for the Regional Institute. The group Chairmen were Mr. A. C. Vizconde of Philippines and Dr. Amrik Singh, Director, South Delhi Campus of Delhi University respectively. Dr. Balwant Reddy, Professor of Economics, Staff Training College, Hyderabad and Dr. Elizabeth Sommerlad, Research Fellow, Centre for Continuing Education, Australian National University, Canberra, were the reporters of the two groups.

## recommendations

The Workshop made the following recommendations—1. The Workshop of the Asian-South Pacific Bureau of Adult Education recommends that an Asian-South Pacific Centre for Adult and Continuing Education be established somewhere in the South-East Asian region to advocate, assist and guide the cause of adult and continuing education in the context of life-long learning of the region. The centre should disseminate and diffuse information related to the activities of adult and continuing education through journal, newsletter, workshops, seminars and documentation work. It should also guide, assist and provide consultation to the member organisations and other interested groups in policy formulation, programme planning and development, education and training of personnel, implementation of programmes, evaluation and follow-up etc.

2. The Workshop recommends that in preparation of manuals for adult education priority should be given for manuals for functionaries in the intermediary level i.e. supervisors, trainers and those who are responsible for the preparation of the learning material.

The workshop suggest that persons engaged in preparation of manuals may take the following into consideration :

1. Scope and objectives of adult education.
2. Users of the manuals.
3. Adult education and programme of development.
4. Monitoring, assesment and evaluation.
5. Organisation.
6. Finance.
7. Follow-up programmes.

It recommends that manuals should relate the work of adult education with development programmes and should be frequently revised so as to meet the needs of the changing society.

## existing constitution to stay general body's decision

A special meeting of the General Body of the Indian Adult Education Association to consider amendments in the Constitution was held on July 25, 1974 in New Delhi. Dr. Mohan Sinha Mehta, presided.

Various amendments proposed in the constitution could not get the requisite 3/4th majority as laid down in the existing constitution. It was therefore resolved that the existing constitution would continue in force and elections at the Lucknow Conference would be held according to the present constitution. The ban on the holding of the election imposed at the Bombay Conference was withdrawn.

The meeting among others was attended by Dr. Malcolm Adiseshiah, Shri A.R. Despande and Shri B. Chatterjee.

## a look at the lucknow conference

As already published in the last number of this Journal, the annual conference of the Asso-

ciation is taking place in Lucknow on the 3rd, 4th, 5th and 6th November. Shri H.N. Bahuguna, Chief Minister of Uttar Pradesh is expected to inaugurate it. The Zakir Husain Memorial Address will be delivered on this occasion by Dr. M. S. Swaminathan. Dr. T.A. Koshy, Project Director, Council for Social Development will preside over the plenary session on "Formal and non-formal education programmes for rural women".

The theme of the Conference is "Adult Education in the Service of the Rural Poor".

About 200 delegates from different parts of the country are likely to participate in the Conference.

## development officer visits madhya pradesh

The Development Officer of the Association, Shri Virendra Tripathi visited Bhopal and Indore from July 19 to 23, 1973 to consider the possibility of establishing the Madhya Pradesh Adult Education Association.

Shri Tripathi had discussions with representatives of the Departments of Panchayat and Social Welfare, Tribal and Harijan Welfare, Education and Agriculture which are responsible for conducting adult and continuing programmes in Madhya Pradesh. He had also talks with representatives of a few voluntary organisations in the State. To coordinate the activities of these departments and voluntary bodies it was suggested that a state level association should

be established.

The need for a State Level Association was appreciated both by the Government Department and Voluntary Organisations. It was decided to call a meeting of the adult educators from different regions of Madhya Pradesh in September for establishing such an organisation.

## talk on adult education in afghanistan

Shri Sohan Singh, former Unesco Adviser on Adult Education in Afghanistan gave an illuminating talk on "Adult Education in Afghanistan" at the headquarters of the Association on July 6, 1974. He said that illiteracy rate in Afghanistan is about 95 per cent.

There are two types of literacy classes in Afghanistan: ordinary literacy classes and functional literacy classes. He said that a voluntary organisation "Women's Welfare Society" is doing an excellent work in spreading literacy among women in Kabul and Kandhar. The Government is also running a number of literacy classes in Kabul.

He said that many adults in Afghanistan attend primary schools alongwith the children. They also read magazines of children which contain useful information on agriculture, national integration etc.

The role of university library in spreading adult education is very significant. The library is open to public. Radio is also providing a useful role in providing information to adults, he concluded.

# from our correspondents

## **mysore**

### **continuing education courses**

The Institute of Correspondence Course and Continuing Education, University of Mysore is starting two-short term certificate courses on nutrition and Indian Philosophy in October this year. The duration of each course is three months.

Further information : Shri K.S. Muniswamy, Field Officer, Institute of Correspondence Course and Continuing Education, University of Mysore, Mysore 570005.

## **new delhi**

### **workers education review committee**

The Government of India have constituted a committee of 10 people under the Chairmanship of Shri G. R. Ramanujam

to review the workers education scheme and to evaluate its impact on workers, trade unions and employers. It will also evaluate the performance/achievements of the Central Board of Workers Education.

The Committee known as Workers Education Review Committee will make its recommendations within six months.

## **bombay**

### **foundation day of bcsec**

The 35th Foundation Day of the Bombay City Social Education Committee was celebrated in Bombay on July 18, 1974. Dr. Manohar Wankhade, Chairman, Maharashtra Public Service Commission was the Chief Guest.

Dr. Wankhade said that literacy was only the means to an end. The aim should be life long education of the people. He commended the work of the Bombay Committee.

Barrister M.G. Mane, in his presidential address said "Literacy today has become a vital and functional part of life and it aims at equipping the individual to overcome various problems of life".

Shri G. K. Gaokar, Social Education Officer of the BCSEC gave a brief account of the Committee's activities and of the new project of Literacy on T.V. being undertaken by the Com-

mittee in collaboration with the Institute of Communication, Arts and Bombay T.V.

Smt. Kulsum Sayani, Vice-President of the Committee, proposed a vote of thanks.

## **indore**

### **training course for university students**

The Bharatiya Vidya Pracharni Sabha, Indore, organised an adult education training course for university students from April 27 to 30, 1974. About 100 students participated.

## **bangkok**

### **aceid newsletter**

The Asian Centre of Educational Innovation for Development of the Unesco Regional Office for Education in Asia has brought out their first periodic publication entitled "ACEID NEWSLETTER".

The newsletter intends to give reports of innovative work in education being undertaken in Member States. It will also give report of the activities of the Asian programme of educational innovations for development.

Further information: The Unesco Regional Office for Education in Asia, P.O. Box 1425, Bangkok, Thailand.

# communication

## polyvalent education

### a counter response

That Mr. Deleon has reacted to my article is thrilling for I feel Polyvalent Education had not been getting the attention it deserved. Hoping for more reactions I was tempted to wait for them before "replying". However the intensity of Mr. Deleon's language prompts me to give what, I hope, will be an interim statement; my final position hopefully being stated in a later article after more views on the subject have come.

First, a brief point-by-point look at Mr. Deleon's objections: (1) More Shramik Vidyapeeths may "hopefully" enrich the personal lives of workers, but are *more likely* to become more vocational centres, because dedicated and enlightened Polyvalent teachers are likely to be in short supply and the others are likely to take a "bureaucratic", quantitative target-fulfilment approach and look upon their jobs as just a means to drawing a salary. The same can, very easily, be the case with the governmental administrative officers supervising and co-ordinating the work of all the Vidyapeeths in a State or the country. Before setting up more Vidyapeeths effort will have to be made to see how *real* Polyvalent Education can be ensured in them.

(2) and (3) I do not disapprove of the Polyvalent approach, but certainly fear the possibility that Polyvalent education may get routinized and

to that extent may perhaps cease to be *really* Polyvalent. Those who have read other writings of mine will be familiar with my belief that people regrettably tend to look upon teaching institutions as mere shops where one can acquire, *with the least possible effort*, a passport to a job, (which in effect means a wage packet) or to marriage, and that very few people think that intellectual, cultural and psychic needs of an individual have any significance or meaning, unless connected with his material or economic needs. Thus any talk of an individuals' "felt needs" invariably centres around his pecuniary needs. And surely both Mr. Deleon and I are familiar with some cases where voluntary adult education bodies show more interest in financial arrangements than in the course-content or implementation.

A psycho-cultural change is in our society so that parents, instead of telling their off-spring to consider earning a livelihood by hook or by crook to be the only virtue, would start exhorting them to look at the "higher things of life" and to value learning *per se*. Here life-long adult, and Polyvalent, education *also* have a role to play, since, if today's children are exposed to nobler socialization for their off-spring. However the main thrust shall have to be towards a change in the social environment, leading to cultural changes.

(4) (a) My point was that, and I quote from my article, "no one is going to allow a few Polyvalent Centres to serve a privileged few in a country where..." and by "privileged" I meant those who by chance found a Polyvalent Centre to cater to them. My article tried to emphasise that our politico-social ethos makes it a case of all or none, nothing else is likely to be tolerated by the "sovereign people" of India. Further for Polyvalent Education to really have a transforming impact on society it is essential that every-

one be exposed to it. It is in this context that I made my statement about "including *all* citizens" which Mr. Deleon has quoted and challenged. After all, he himself has been known to point out that our plan targets and financial resources for adult education are bound by the overall resource position of the country.

4(b) I referred to the note of caution against Polyvalent education being forsaken in favour of the adoption of a "*hollow* Polyvalent Centre structure" (perhaps my sentence construction was weak). In fact, my overriding concern about implementation not conforming to the ideals seems to have appeared to Mr. Deleon as an attack on *real* Polyvalency in education.

What I personally believe in is real living as "complete" men, instead of the materialistic and atomized existence that is the lot of today's man.

And now for a re-statement of what I consider to be the function of a real Polyvalent Centre — and here I quote from the draft of another article I am writing: "A Polyvalent Centre is one where all the varied educational needs — academic, technical or vocational, cultural, civic, spiritual, psychic and the like — of a human being are being met, *a different syllabus being framed for each individual according to his tastes, needs, aspirations and aptitude*. Such flexible educational opportunities which also look to the developmental needs of the community are made available to all those attached to a Centre *throughout their lives*."

Not everyone may agree with my view. So much the better, for, their dissent and the ensuing debate shall be good for the cause of Polyvalent Education.

Department of **Rakesh Hooja**  
Political Science,  
University of Rajasthan.

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# indian journal of adult education

theme : farmers training and functional literacy



मोहन उठ  
स्वैत में  
फवाइ डाल

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from the publisher

**We regret the delay in release of this number. But subsequent numbers will follow soon. The numbers on Farmers Training and Functional Literacy will also be available duly bound in a book form.**

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# not form but content

Traditional literacy teaching confers on man the abstract power of deciphering a symbolic code, and so it is concerned with *form*. Functional literacy, on the other hand, gives precedence to *content*. As stated in a recent Unesco publication: "Functional literacy training is a complex process of technical advancement, scientific acculturation and social and cultural integration, constituting a novel educational operation which contributes to changing and gaining mastery of the milieu".

As originally visualised by J.C. Mathur, the farmers training and functional literacy programme was to be an indispensable input in the High Yielding Varieties Programme, which was the most important single factor in ushering the green revolution. The concept rejected the isolation of adult education from economic advancement, and *vice versa*, and attempted to show that green revolution cannot become a factor in long term economic growth unless its import and implications are fully grasped by agriculturists. It rightly linked agricultural development with education and planned for integration of mass media with functional literacy.

The Farmers Training and Functional Literacy Programme was a forerunner of a concept subsequently developed to make adult education an essential input in all development programmes, the success of which depends on human resource development. The Task Force, appointed by the Planning Commission under the Chairmanship of M.S. Mehta, has recommended a 2 percent adult education component in all such projects.

The true meaning and implications of the concept of functional literacy are now becoming increasingly clear. The objective of traditional literacy is to read, write elementary letters and some basic arithmetic; it is seen as an isolated operation which is an end itself. Organizationally, the traditional literacy programmes tend to be diffused, catering for adults of both sexes, all ages and regardless of difference in vocation, socio-economic circumstances and interests. There is minimal emphasis on application of pliteracy to the learners' social,

economic and political existence.

On the other hand, functional literacy is seen as a training process built around a variety of learning situations in which the educational objectives are correlated to development programmes. This process is envisaged as preparing the frame-work for action by illiterate adults. The process is organised to facilitate the acquisition of integrated store of knowledge, skills and know-how leading to, as stated in the Unesco's Practical Guide to Functional Literacy, "recasting of modes of being and functioning".

## social objective

What the Farmers Training and Functional Literacy Programme did not include was equally significant. The objective of this Programme during the Fourth Plan was to quadruple the production of food crops by improvement in cultivation techniques, in particular, through the High Yielding Varieties Programme. The Experimental World Literacy Programme launched by Unesco, following the meeting of the World Congress of Ministers of Education on the eradication of illiteracy at Teheran in 1965, was taken up in 11 countries. India was the only country where the project had no explicit social objective. This needs to be viewed in the context of the criticism often made in responsible quarters that the benefits of rural development programmes have accrued mostly to the large landholders and that the gap between the rich and the poor has widened.

Like most other programmes of rural development the Farmers Training and Functional Literacy Programme is essentially elitist and to the extent that it helps progress of the rural elite it will mean deterioration of the masses. The fear is not that the programme excludes the weaker sections, indeed it may cover a very large number of them, but unless it makes them aware of their social and economic exploitation and engenders in them a will to change it, the Programme will only maintain the *status quo*. The rural poor may learn about the inputs necessary for the HYV Programme, but will not be able to secure the necessary credit and

other wherewithal to obtain them. That is, not unless they understand how the cooperative institutions and the Government machinery primarily serve the large landholders and how they can organise themselves to counter this trend.

It is unfortunate that while all the eleven countries which accepted the Experimental World Literacy Programme had a social objective of activating the masses, only in India was there no clearly defined social objective. Even in the land of the Shahinshah the objective of the Unesco sponsored functional literacy project is stated in these words—

“Functional literacy will not be confined to learning the elementary mechanisms of reading, writing and arithmetic, but will give adults of both sexes the general and technical knowledge necessary for the individual, vocational, social and cultural training which will make it possible to transform society through development.”

It is further specified that the Iranian Government would watch with care—

“the impact of these programmes on economic growth and social change in the two regions elected for the experiment, in particular, by measuring its effects on the behaviour, attitudes and qualifications of workers”.

This approach was endorsed by the Edgar Faure Commission which used the Iranian experiment as illustration of the kind of literacy programmes it was recommending. It declared that

in this manner “intellectual elements (reading, writing symbols) are integrated into technical, vocational and socio-economic components”.

The Farmers' Functional Literacy Programme in our country does not even take notice of the fact that if the masses remain culturally repressed they are bound to be economically inert. Unquestionably, the end result of this programme will be to obstruct the growth of critical capacity of the masses to identify their problems and to seek an option favourable to them. If learning is confined to vocational and technical skills and it does not acquire a socio-economic meaning for the masses the programme remains confined to form and does not acquire a real content.

## evaluation

Several evaluation studies of the Farmers Functional Literacy Programme have been attempted. These studies relate primarily to pedagogy and to learning and adoption of improved agricultural technology. It has been shown that a person who participated in the functional literacy programme was more likely to adopt to improved agricultural practices. However, with a couple of exceptions the evaluation was undertaken by agencies connected with the implementation of the Programme and the agencies did not ask some important questions, for example the following—

1. Did envisaged coordination among the Ministries of Education, Agriculture and Information and Broadcasting take place ?

2. What were the reasons for shortfalls in targets and how far was the indifference of State Governments, organizational deficiencies and insufficient stress on training of functionaries at different levels responsible for it ?

3. Was there a clear understanding about the methodology and whether instructional and learning materials were adequate for the needs ?

Answers to these questions are not forthcoming in the evaluation studies done so far. The district Project Officers were asked by this author to send their assessment of the success and failures of this programme along with their analysis of the causes and they have invariably reported that the Agriculture Department and ICAR treated farmers training as quite apart from the FFLP and similarly the AIR organised the farm broadcasts independently of the other two wings of the programme. The State and District Coordination Committees met infrequently and generally failed to establish coordination.

### targets

Shortfall in targets have been quite serious. Against the expected coverage of 1,000,000 during the Fourth Plan the actual achievement is less than 3,00,000. Looking to the unsatisfactory performance of field agencies in sending returns\* even this figure needs verification. In several States all projects sanctioned

have not been started. For example, in West Bengal out of 7 districts sanctioned, 3 had not been started till the end of the Fourth Plan. The field functionaries have been seriously handicapped owing to budgetary deficiencies. For example the expenditure on travel of Supervisors was expected to be met by State resources but States were reluctant to provide funds. There are several other examples of indifference of the State Governments, reflected in the lack of support provided by the District Education Officers. Due to frequent transfers of teachers in the rural areas trained teachers often found themselves posted in institutions where their training was not made use of and the programme was implemented by untrained or inadequately trained instructors. While a large majority of Supervisors were trained, most of the Project Officers were untrained. These organisational and training deficiencies must have had something to do with shortfalls in achievement of physical targets.

### materials

There is a perceptible lack of clarity in regard to methodology. One of the points highlighted in the reports prepared by Unesco on the functional literacy projects in other countries; for example, Iran, Tanzania and Mali, is the methodological clarity and linkage of instructional material with it. In a country like India, which is large and has several languages in which instructional material was to be prepared, the difficulties of doing so are obvious. However, a careful evaluation will perhaps reveal that one of the reasons

which hindered successful implementation of the programme was lack of methodological clarity. The experimental Jaipur Project has not concluded as yet and the entire Hindi speaking region is having to manage with one common primer, the *Kisan Saksharta Yojana—Pehali Pustak*, and five supplementary reading books brought out by the Directorate of Adult Education. One of the special features of functional literacy programme is that it is related to homogeneous groups. Naturally, for wheat production alone there can be different functional literacy materials relating to irrigated conditions in East UP and Bihar on the one hand, East, Rajasthan and MP on other and Haryana and Ganganagar district of Rajasthan yet another. Similar variations in the Hindi speaking area, as well as within smaller linguistic regions, can be easily identified. The Ministry of Education encouraged production of instructional material through State Governments but with very limited results.

The Farmers Training and Functional Literacy Programme of Government of India is being extended during the Fifth Plan in an enlarged form with due emphasis on consolidation. While there is still time, the possibility of undertaking a comprehensive evaluation, on the lines of the Committees on Plan Projects, should be explored. A decision is also necessary to add social, cultural and political education along with training in occupational functions. It is only then that the Farmers Functional Literacy Programme will rise above a mere form and will acquire a real content.

\* The interim report on the experimental World Literacy Programme prepared by Unesco leaves out serious blanks in the tables pertaining to India.

# social and educational requirements of new technology in agriculture

M.S. Swaminathan

by settled human communities has hence been the starting point for the evolution of culture and orderly Government. Ironically, the very centres of civilization, where the domestication of plants and animals took place in the past, are the areas which are struggling today to find an honourable equation between population growth and food supply. The two major contrasting systems of agriculture we see today differ in the size of farm, the proportion of work force employed in agriculture, the types of linkages developed between farm and factory, the extent of consumption of non-renewable resources of energy, management efficiency, per capita productivity and income and the extent of use of animal products in daily diet. Our need is an agricultural system where the benefits of a large human and animal population, robust soils, abundant sunlight, rich ecological diversity, availability of large quantities of organic wastes and a fairly extensive irrigation network are optimised in a manner that productivity is continuously increased without damage to the long term production potential of the soil, stability is imparted to the production as well as prices of food-grains and labour and land use diversified, so as to increase real income and purchasing power.

Food is a basic requirement in the hierarchical needs of man. The successful domestication of plants, animals, soil and water

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About 10 years ago, some foreign experts believed that Indian could never become self-sufficient in its food requirements. They predicted the outbreak of widespread famine and hunger in India on the basis of theoretical calculations of the year when the food needs of the poor nations would exceed the capacity of the

rich nations to meet them. Paul and William Paddock, for example, fixed this year as 1975. Some others felt that such a contingency would arise only in 1985. Our failure to achieve during the nineteen fifties and early sixties the anticipated results with the Community Development and the Intensive Agricultural District Programmes fanned the sentiments of the pessimists. It was widely believed that in our rural areas developmental action achievement were being impeded by the limited sights of our farming community. The progress in improving production was slow and largely took place through an increase in the cropped and irrigated area, rather than through any appreciable increase in productivity. The economic plight of the small farmer remained unchanged since his real income would rise only if productivity was improved and marketing organized so that the small producer got a fair share of the price paid by the consumer for a commodity.

### **new production technologies**

A silent revolution has been taking place in the minds of our farming community as a result of the new production technologies introduced through the High-Yielding Varieties Programmes, Intensive Cotton District Programme including hybrid cotton which was introduced into commercial cultivation for the first time in the world and the Cattle Cross-breeding projects. Obsession with destructive criticism has blinded us to the meaning and implications of the increase in wheat production from a little over 12 million tonnes to over 27

million tonnes in just six crop seasons beginning from 1967-68. There has not been much interest in studying how a small Government programme in wheat was converted into a mass movement by our farmers. It is not only in the Punjab or Haryana that wheat production went up dramatically but also in non-traditional wheat areas like West Bengal. While in the past it was difficult to induce farmers to take to a rat control operation, farmers took pains, in the wheat belt, to see that rats did not migrate from sugarcane fields to wheat. While in the past everyone knew that farmers were sitting over a large underground water resource in the Indo-Gangetic plains, it was only the introduction of high-yielding varieties of wheat and rice that provided the necessary motivation for them to take to the construction of tube wells—whether made of metal or of bamboo—on a large scale. The truth of saying “Necessity is the mother of invention” was proved to be true in the case of wheat cultivation, where farmers somehow managed to produce or get the seeds they needed, use diesel pumps if electricity was not available and get the requisite number of threshers and other implements as well as storage bins fabricated in record time.

The sudden and steep spurt in fertilizer demand is an eloquent testimony to the credibility of the new varieties and techniques. The concept that agricultural advance in India would suffer due to the limited vision of the farming community was thus disproved. The social tensions between those who had access to the inputs needed for adopting the new technology and those who did not

have similar access, only underlined the fact that those who have not derived economic benefit from such technology are equally anxious to take to the technology. The desire to change farming methods thus fanned both joy and sorrow in our countryside. This in turn generated considerable thinking and action on the part of Government, resulting in programmes for marginal and small farmers, expansion of credit facilities and more recently in integrated farmers' service societies on the lines recommended by the National Commission on Agriculture. The most important factor which will determine our agriculture future, namely, our human population. The principal characteristics of our population are the predominance, of youth, poverty, undernutrition and illiteracy. According to the projections of the Registrar General, we will have about 657 million people by 1981, over 40 per cent of them will be below the age of 18. Nearly 80% of our population lived in villages during 1971. We are thus mainly a land of youth and of rural people. Impressive statistics on poverty are available and there is also a growing awareness of the implications of protein-calorie malnutrition on national development. Many authorities now compare nutrition education respectively to the hard and soft-ware components of technology.

Although in terms of percentage, the number of literates rose from 24.03 in 1961 to 29.34 in 1971, the number of illiterates increased in absolute number during this period. Most of our agriculture is managed by illiterate peasantry and Mahatma Gandhi warned us forty years ago that unless there

was a marriage between intellect and labour in rural India, there would be neither agrarian advance nor rural prosperity. Our agricultural future will hence depend to a great extent on how successful we are in involving youth and the illiterate both men and women in rural transformation.

### **synergy in agriculture**

I would now like to turn to the application of three other important concepts in agriculture. The first of these is the concept of synergy in agriculture, one of the most fascinating scientific developments of recent years. Synergy is not a new concept, since this mechanism, which results in the product being something much more than the sum of the parts, has been the most potent tool involved in natural evolution. Symbiosis, or mutually beneficial relationships and co-ordinated functioning are essential ingredients of synergy. For developing high synergy cropping systems, an understanding of population behaviour and performance rather than merely of the characteristics of individual plants or animals, is essential. Prudent observers of nature in the past had devised biological systems based on the release of synergistic interactions.

Terrestrial and aquaculture systems can be devised, where each element would contribute significantly to the functioning of the whole, resulting in a profitable farm ecosystem. The Chinese have taken advantage of the possibility for raising pigs and ducks in conjunction with the culturing of fishes. In a 4.4 hectare Chinese farm in Malaysia, pigs, fish and aquatic plants were raised together. About 30 tonnes of pig

meat were produced per year, with the primary feed being the aquatic water spinach, *Ipomoea repens* which grew luxuriantly in the fish ponds fertilized by the pig manure. Besides the pigs, some 3000 kg. of fish were cultured in the small ponds. The main food for the fish was algae, which grew well in the enriched ponds. Ducks could complement a system like this, their wastes being added to the ponds.

### **harmony and natural balance**

The next concept I would like to deal with is harmony and natural balance. This involves the development of management concepts in areas like disease and pest control and the balanced growth of different components of a production system. "Prevention is better than cure" is the general motto in disease control and we know that through appropriate immunisation, and sanitary and quarantine measures the health of farm animals can be maintained at a satisfactory level. Depending upon the cropping pattern, water availability and marketability of produce, profitable mixed farming systems can be developed. Where feed grain availability is low, ruminating animal could form a good mix with cereal and millet cultivation.

### **economy through recycling**

The third main concept I should like to touch upon is economy and maximisation of farm income, a concept which is being used with great profit in diverse areas like increasing the efficiency of nutrient supply,

water use, energy release through recycling and effective use of all wastes and by-products, improved harvesting, storage, processing and utilisation. The major aim is to reduce waste in all possible ways and decrease to the extent possible the dependence on non-renewable resources for increasing production. An integrated nutrient supply system involves the development in each Block of an appropriate schedule of manuring with organic and inorganic manures. There is great scope for raising leguminous shrubs on bunds of irrigated fields or all along irrigation canals and rivers for providing green leaf manure. It would be wise to introduce pulses and fodder legumes in all rotations. Success in conserving cow dung and other wastes for use as manure will depend upon the availability of fuel.

### **village level cooperation**

A recent publication, entitled *The Careless Technology* points out, with the help of 50 selected case studies, that a high proportion of the development efforts in the developing countries have been destructive, especially of precious natural resources and delicate but ill-understood natural balances. The book demonstrates that time and again not enough forethought was given to the ecological consequences of developmental projects. However, the authors of the book also admit that most of these projects were designed by experts from the developed countries, often with limited knowledge of the client countries and based on the different and irrelevant experiences of their own countries. What is needed

is a close and detailed understanding of local eco-systems, and its application to local situations by those who are fully informed of the parameters of the problem. If development is not to be destructive, then the developing countries must take responsibility for understanding their own ecological needs, resources and patterns and planning their development accordingly. Ecology has to be a positive force in the poor countries, one which supports the economic growth we so urgently need, and not just a conserving force. This can be achieved when the people of each area participate, through Block and District Level Land Use and Crop Planning Forums, in the formulation of detailed land and water use plans for their areas. Land use planning at the Block level, assisted by guidelines on market needs and opportunities by a suitable authority at the State level and on inter-State crop adjustments and export opportunities by a Central agency, would alone result in a dynamic agriculture, where the profits of progress accrue to all sections of the community.

For an efficient adoption of the technology at the field level there is a need for the development by scientists of appropriate drought, good weather and flood avoidance codes for each agro-ecological area. Such codes would be of immense benefit to the developmental administrators as well as to Village Panchayats, Zila Parishads and other agencies who have to get projects translated into field accomplishments. It is obvious that tasks like recycling of all wastes, and land use planning based on an

appropriate admixture of agriculture, animal husbandry, fishery and forestry, require considerable understanding and cooperation at the village level.

The only approach to rapid economic development which can succeed is to optimise the advantages of our large population, vast numbers of whom are now neither participants nor beneficiaries of development activity. For example, let us take the case of the control of *Pyrilla*, a serious pest of sugarcane. *Pyrilla* is not only affecting sugarcane but is now becoming serious in other crops like wheat and jawar. The most economical and effective method of controlling this pest would be field sanitation involving the burning up of all trash after the harvest of sugarcane and the collection of eggs of the pest from the lower surface of the leaf during April-May. These tasks can be easily accomplished by even village school boys and girls. If such early steps are taken, the small population of *Pyrilla* that may still remain is likely to be attacked by natural enemies during the rainy season and the problem may come under control easily. If, on the other hand, simple steps like crop sanitation, removal of eggs from the under-surface of the leaves at the appropriate time and subsequent steps like attracting the nymphs and adults of this pest by light traps, are not followed, then the pest assume a serious dimension towards September as it did in some areas of the north India this year. Since the sugarcane plantation would be full grown at that time, it would be difficult to get into the field and spray with

chemicals. At that stage, the method of aerial spraying or use of power sprayers becomes the only choice left. Though inevitable, when the pest has assumed menacing proportions, it is obvious that making a habit of such a method in our country would be tantamount to by-passing our major strength, viz., our large population, and to increasing the already high cost of cultivation.

### **new technology**

The emerging agricultural technology is of two major kinds with regard to the ease of adoption. In one kind, as for example, the new technology of wheat cultivation, the economic benefits derived by a farmer by adopting the technology are not influenced by what his neighbouring farmer does or does not do. In other words, the technology is capable of successful individual adoption, in economic terms. In the other kind, the economic benefits conferred by the technology on the farmer will be proportional to the extent of co-operative action generated on the part of an entire village or water-shed community. Rice and cotton cultivation and prevention of disease epidemics in cattle are good examples. Even in the Punjab, with one of the finest farming communities in the world, the average yield of cotton is low, being only 368 kg/ha. In contrast, in the Arab Republic of Egypt where cotton cultivation is managed co-operatively without any infringement of individual ownership, the average yield is 780 kg/ha. Pest control and water management in rice are best done co-operatively in a village. In fact, if

this can be accomplished, even some of the fertilizer lost through leaching in drainage water can be recycled, by collecting such water in a pond at the lowest point and re-distributing it.

Co-operative effort is not only needed in the delta areas during the kharif season but even more importantly in the dry farming regions. While an individual farmer can increase the storage of moisture in the soil profile of his own field through tillage, mulching and other measures, the possibilities for collecting all the run-off water and using it for a crop life-saving irrigation later, can be realised only if there is group action in accordance with the topo-sequence of the farms.

To sustain high levels of biological productivity, we also need to generate a general awareness in the entire community of the crucial significance of conserving soil, water, flora and fauna. Like game and wild life sanctuaries, we need to develop "Crop Gene Sanctuaries" in those parts of our country where valuable genes are found in the primitive cultivars and native flora. Such a step can help to prevent the erosion of valuable genes. In contrast to soil erosion gene erosion is not visible to the naked eye and hence does not attract attention.

We also find that several basic changes in cultural practices may be needed to get the best out of the new crop varieties. For example, in dwarf wheats, sowing has to be shallow, first irrigation has to be given at the time of initiation of crown roots and population density should

be higher. In rice, traditional practices such as low seed rate under direct seeding, wide spacing deep planting and bunch planting under transplanted conditions and drying the field to promote the establishment of seedlings are all intended to retard luxuriant vegetative growth in the earlier tall varieties, which have a proneness for both excessive vegetative growth and lodging or falling down. In contrast, the new dwarf rice varieties need almost the opposite kind of treatment, if they are to reveal their full genetic potential for the yield.

It is obvious that to accomplish all these tasks successfully we need to develop educational and organisational procedure which would, on the one hand, make the literate better equipped to discharge the functions of gram sevak, gram sevika, credit agent, teacher and other agents change, and on the other, make the illiterate highly skilled and efficient partners in adopting the latest scientific advances. I do not propose to reiterate other obvious requirements like the timeliness of credit and input supply and appropriate pricing and marketing arrangements.

### **changes in educational outlook**

Having mentioned the extension needs of the new technology, I would like to turn to the social and educational infrastructure which is a prerequisite for the successful adoption of the technology. I shall deal first with the educational aspect.

What kind of education do

we need that would be relevant to our society, dependent as it is on agriculture as its major activity? And what practical steps can we take to change our educational system into such a one?

The changes required are of two kinds: at one end, we need to bring about a change in outlook, creating an awareness of biological surroundings, and a consciousness of the possibilities of synergy. This can be done only when there is an inundation so to speak, at every level of education, of materials that will create such a consciousness. At the other end, we need to give technical skills to illiterate and semi-literate adults, which will enable them to understand and use efficiently the new technological package. Between these two, there are a wide range of activities which can be applied at every educational level.

During the early years of childhood, before the child begins to receive formal education, and in primary school, the major emphasis should be on living in nature and with nature, learning about nature through direct observation, and using the materials provided in nature to develop scientific skills, aptitudes and habits of thought.

### **work experience**

Work experience at the upper primary and secondary level too can be effective if carried out in a different manner. This idea of introducing work experience into schools seems rather artificial and unnecessary in our context. At an optimistic estimate, about 70% of the children aged 6-11 are enrolled in primary schools.

If we consider children upto the age of 14, and take account of wastage and stagnation in education, then the number of children between 6-14 who are not in school may be as large or larger than the number of children in school. Most of these children are already working, not intend to gain work experience, though they are gaining it no doubt, but out of sheer economic necessity. In these circumstances, bringing work experience into schools seems redundant. Would it not be more meaningful to carry educative experience out to the work, where the children already are anyway? This means much more than open-air classrooms, or discussing arithmetic in terms of bags of manure or hectares sown or other agricultural operations. Of course, such activities are necessary and important. But it would mean much more. It would imply a profound change in the school programme, introducing such activities as allowing children to work in their own or others' farms for part or most of the day, planning for learning-oriented and not teaching-oriented education, and getting new kinds of teachers to deal with the new tasks.

Who is to teach work experience as conceived in this way? The traditional school teacher, who is mostly drawn from the white-collar class and has little practical experience of agriculture may not always be the most suited to this task. In fact, it has already been observed in areas where the new technology has spread that the technical knowledge of rural parents, who may be progressive farmers, is far ahead of the outdated agriculture

taught in the schools, even by qualified teachers. Why not allow such parents, or other local farmers, to teach part-time? Often even the children of farm families know more about the latest developments in agriculture than the non-agriculturist school teacher.

### **work projects for students**

Another useful adaptation of the idea of work experience is to give academic recognition, through marks, to real economic work projects, self-chosen by students and carried out by them in their spare time, either alone, or with the help of their families. A boy or girl, who can run a simple project such as a poultry unit or a kitchen garden, would have learnt much by way of independence, responsibility and initiative, as well by way of arithmetic, science and economics. It is needless to add that the conventional literacy skills of reading writing, and arithmetic will also be fully utilised in such projects. Of course, it means more time and effort on the part of teachers and administrators to identify and initiate such projects. Further, it requires the technical assistance of officials of agriculture departments and extension agencies. It is naturally much easier to provide artificial work in the classroom and call it work experience than to help children to engage in real work and to assess it as it deserves. Children become responsible when they are obliged to carry responsibility. The majority of children in our country are already working and carrying responsibility. It is up to us to devise an education that will encourage and support them

in their efforts by providing a place for such tasks. Here I would like to quote A.H. Maslow, the humanistic psychologist, speaking on the development of responsibility ;

“It looks as if one way to breed grown-up people is to give them responsibility, to assume that they can take it and to let them sweat and struggle with it. Let them work it out themselves, rather than over-protecting them, indulging them or doing thing for them”. It is time that we use this as a basic principle in education.

Yet another useful form of work experience would be the school project. Apart from the practical and economic value of the school farm, garden or dairy, it would develop another vitally necessary attitude, co-operative endeavour. Even if each student had his own plot, or animal, or pond, he would, in the course of work, learn without being asked to combine with his fellow students for certain operations, the need for certain activities to be undertaken by all at the same time, the economies of sharing and so forth. In this way, co-operative endeavour would become a necessity for the individual for the success of each individual's project would be inevitably linked to the performance of these joint operations at the right time and in the right way.

### **involving university students**

At the university stage, fewer people are involved but they need to be involved differently. Let me begin by quoting some facts. In 1969-70, about 3

million students were enrolled in higher education, about 2½ million men and ½ million women. Of this, only 1.6% of the men and 0.4% of the women were engaged in any kind of agricultural studies. Only 176 women were enrolled in agricultural universities. In a country with 80% of the population engaged in agricultural pursuits and living in the rural areas, it is sad that such a small fraction of men and women are engaged in studies which can contribute to rural development or agricultural productivity. It is specially sad that though women contribute equally to the labour force in agriculture, performing many of the key operations and the most of more tiresome ones, agriculture as a profession is not regarded as a suitable one for women at the higher stages of education. This reflects the gap between the educated classes, who are most drawn from the urban areas, and now-a-days also from the rural elites, and the rest of the population.

Apart from providing more opportunities for higher education and technical studies in agriculture, we have also to think of other practical ways in which the great majority of university students can be helped to become involved in the work of rural development and to acquire some understanding and sympathy for the problems of the greater part of the this country's population. An example of how non-agricultural colleges can participate is the good farm run by the staff and students of the Madras Christian College, in what was until 1965 a scrub jungle.

Making work-experience an

integral part of university education would help to generate a greater sense of self-confidence and self-reliance on the part of the student. One approach to achieving this aim may lie in making an in-built provision in each one of our developmental projects for students' participation. Student work should not be regarded merely either as social service or training but must become a distinctive and advantageous part of the project. If this approach is accepted by the project authorities, students can become a source of great strength and dynamism to the Project, if they are properly trained and deployed.

The traditional media of entertainment as well as the mass media of radio, cinema and television can also be harnessed to the cause. Even now many of the new crop varieties are known in villages at some places as "Radio varieties", since information on the new strains reached the illiterate cultivators through the radio. It is a happy sign that newspapers are increasingly assigning more space to items relating to agriculture and rural development. While the English newspapers play an important role in conveying messages to the policy maker, the language press, besides the radio and cinema, forms the most significant medium of conveying information to villagers. Several of our leading newspapers have now whole time agricultural correspondents and experts specialising in agricultural themes. Development journalism took to a new path when an integrated village transformation project was initiated in the Chattera village of Haryana State by the

Hindustan Times. Apart from its contribution to human happiness and welfare, this project is becoming one of the best documented accounts of rural change.

### **role of banks and companies**

Both banks and public and private sector companies can play a great role in combining their regular work with the art of communication. Banks can finance entire production programmes, as for example the production of a lakh of tonnes of sunflower oil or the production of a certain quantity of soybean in a suitable area, and thereby assure the credit and other infrastructure for the entire production chain and not merely for components of the chain. Similarly, pesticides firms can sponsor programmes designed to ensure pest-proofing of important crops in the poorest villages in their area of operation. All such projects will provide excellent educational opportunities for the students of the area, besides serving as demonstration of new techniques.

### **technical literacy for farmers**

The majority of our peasants are illiterate. Unfortunately, the proportion of illiteracy seems to be higher in areas such as the arid and semi-arid regions, where the scientific transformation of the rural economy requires a much greater understanding of the principles of economic ecology. Therefore, it is obvious that unless we seriously start programmes to impart the latest technical skills to illiterate peasantry by the method of learning by doing, we will not be able to

accomplish our goals. The Indian Council of Agricultural Research is proposing to set up a number of Krishi Vigyan Kendras to impart technical literacy to practising farmers, fishermen and others. These Kendras would select in each area such means of economic growth which are most likely to give major benefits to the poorest sections of the community. In other words, those who are setting up a Krishi Vigyan Kendra will first have to make a survey of the agricultural potential of an area and then identify those aspects of growth which could help to improve the purchasing power of the poor. For example, in an exercise done in the Union Territories of Pondicherry and Karaikal, where Krishi Vigyan Kendra has been approved for establishment, it was found that the following areas needed immediate attention, if the poor are to be benefited :

- (1) Improving the income and reducing the under employment of over 10,000 fishermen.
- (2) Improving the average per hectare rice yield to about 2,000 kg. as soon as possible from the existing 1,400 kg.
- (3) Introducing a scientific animal husbandry programme in order to produce more milk both for marketing in Madras city and for making milk powder.

A similar Krishi Vigyan Kendra in Punjab may deal with topics like tubewell technology, repair of implements and tractors and scientific multiple cropping.

Having analysed the most effective methods of improving the income of the poorest sections of the community, and identified the major thrusts, the Krishi Vigyan Kendra has to provide training which will be in the area of coastal aquaculture, which will help them to undertake fish culture in coastal estuaries, in addition to improving the techniques of fish capture. Similarly, the animal husbandry programme will impart skills in genetic upgrading, cultivation of nutritious grasses and legumes as well as the use of wastes enriched with urea as feed, health care through sanitation and immunisation and better processing and marketing techniques.

Even if we are able to provide the educational infrastructure needed for agricultural reconstruction, we would still have to develop a social organisation which can help small farmers to overcome the limitations arising from the small size of farm holdings, lack of capacity to purchase the requisite inputs and inability to get a fair price for the produce. To achieve this aim we will have to devise strategies to generate social synergy.

### social synergy

What is social synergy? Ruth Benedict, the anthropologist who first applied the concept of synergy in social sciences, says and I quote, "Societies where non-aggression in conspicuous have social orders in which the individual by the same act and at the same time serves his own advantage and that of the group ... Non-aggression occurs in these

societies, not because people are unselfish and put social obligations above personal desires, but because social arrangements make these two identical.

Cultures with low social synergy are those in which the social structure provides for acts which are mutually opposed and counteractive, and cultures of high synergy where it provides for acts which are mutually reinforcing ... In cultures with high social synergy, institutions ensure mutual advantage from their undertakings, while in societies with low social synergy the advantage of one individual becomes a victory over another, and the majority who are not victorious must shift as they can."

According to Abraham Maslow, "The high synergy society is the one in which virtue pays ... High Synergy societies all have techniques for working off humiliation, and the low synergy societies uniformly do not."

To a biologist like me, there is sufficient evidence in Nature to prove that symbiosis, or the process of mutual assistance and support, is a necessary ingredient for synergy. However, it seems that the very concept of synergy has been very little used, or even understood, by social scientists in its application to man. Ruth Benedict was one of the few social scientists to apply this concept to societies, and it has been later developed by Abraham Maslow, who is, significantly enough, not considered an orthodox psychologist. A very significant definition of social synergy is the one I just quoted. From this, it appears that there

is a close correlation between synergy and non-violence, a fact which should be of interest to us in the country of Mahatma Gandhi. Further, the high synergy society seems to be another name for what Gandhiji described as the Sarvodaya society. It is also evident that our society as at present organized is a low synergy society. What steps can we take to ensure that we move from this to a better state of affairs?

### **individual and social goals**

Individual goals have to be made to coincide with social goals. This can be done in many ways. The Communist countries have found their own approaches. Russia, China and Israel have all found their own ways of ensuring this merging of individual and social goals. Most of these methods are related to the practices of child-rearing and education. In Soviet Russia, for instance, the system of rewards and punishments in schools is such that the individual is rewarded only when the poor group succeeds. At every stage, the success and happiness of the individual is related to the success of the group in such a way that each individual strives to maximise the success of the group. Some of the approaches I described earlier, such as encouraging children and students to take up economic projects in a responsible way, and linking them with academic success, would be good examples of social synergy at work.

This is not however the only means of achieving the goal. In a free economy, it is possible to

conceive of a system whereby farmers could be motivated to produce what the nation considered necessary. This would involve a very complex set of arrangements including pricing, availability of inputs, technical knowledge, land ownership and a variety of other things. However, it is clear that slogans and appeals to the social conscience cannot work, except for short periods during national crises. 'Grow More Food' or 'Self-reliance' are not adequate as methods to persuade farmers even to grow anything leave alone to do so in an ecologically balanced manner. It requires a far more widespread and dynamic movement of society to bring about such changes. In other words, it requires a release of synergy.

I have been talking about individuals and society. It may be asked who is the 'Individual' whose interests have to be identified with the social interest? Whom is the new technology to serve? The first task is to identify the individual. I will begin by stating the obvious. The farmer of India, who must be served by the new technology in such a way as to release social synergy, has three qualifications. He is essentially a small farmer, poor and illiterate.

### **a technology for the poor farmer**

If slogans such as the transformation of rural life, or the achievement of growth with social justice are to be translated into reality, then the new technology must be such that it can be adopted by the small, poor and illiterate farmer. Do we have

such a technology? Yes, but as I explained at the beginning of this talk, its adoption particularly during the south-west monsoon season requires a certain degree of co-operative effort and a changed outlook. These in turn imply far-reaching changes in education and social organisation as prerequisites.

Let me quote a few encouraging examples of what I mean, before I close.

Here and there in our countryside, but unfortunately only rarely, we see striking examples of the economic benefit that can accrue to small cultivators by co-operative action. The Bhartiya Agro Industries Foundation at Urli Kanchan near Poona has sponsored a whole set of co-operative activities like lift irrigation, dairying, poultry and joint farming based on the concept of uplifting the rural poor through the latest agricultural and animal husbandry techniques. The work of the Kaira District Co-operative Milk Producers' Union, Anand, is too well known to need description. The Tudiyalur Co-operative Society has been providing total service to about 8000 cultivators in the Coimbatore district. The Syndicate Agriculture Foundation, Manipal, the Mahatma Gandhi Lift Irrigation Co-operative Society, Gaddipalli, Kerala Development Society, the Musahri Plan initiated at the suggestion of Shri Jayaprakash Narayan, Food and Marketing Centre, Jamshedpur, the Agricultural Institute at Kosbad Hill, Shri Shivaji Council for Education and Extension, Godegaon, the Samanway Vidya-peeth, Bodh Gaya, Kishore

Bharti, Hoshangabad, and several other organisations in different parts of our country are helping to uplift the economy of the poor. Various missionary organisations have been actively involved in educational and developmental work in the field of agriculture. The Aurobindo Ashram at Pondicherry runs a farm based on recycling principles.

I have always advocated about an agriculture in which the ecological advantages of the different parts of our country can be maximised and the hazards minimised through appropriate land and water use planning, in which high synergy crop and animal production systems are introduced, recycling procedures used to promote a high growth rate in productivity on the basis of renewable resources of energy, farm and factory are closely linked, maximum economy and efficiency effected in the use of all resources, export markets nurtured through continuous attention to the changing quality needs of the clients and a fair and remunerative return assured to the primary producer. This is an agriculture based on ecological awareness, in which synergy, harmony and economy are the basic principles, and of which recycling is a tool. These are in essence the principles on which Mahatma Gandhi developed most of his concepts of rural reconstruction, though he used a different language and a different set of examples which were valid at that time. We should not make the mistake of rejecting the principles because some of the examples used by Gandhiji forty years ago may be out of date in the light of modern science. On

the contrary, science and technology have in their search for a productive agriculture compatible with human growth and human welfare, uncovered the very same principles which Gandhiji arrived at by a different route. If we can take the steps necessary to evolve the kind of agricultural system based on the most advanced principles of biological science, we can probably claim to have developed a Gandhian Agriculture, because this would be an agriculture where Gandhian concepts become manifested in the form of an advanced rural economy, benefiting all sections of the community.

To achieve this, the tool has to be education, and the chosen method, co-operation. Social synergy has to be released by using appropriate educational and organisational methods as catalysts. In addition to official extension agencies, we have numerous workers belonging to the Gandhian and Sarvodaya movements, missionary groups, voluntary service societies and others, who are dedicated servants of the rural poor, struggling with zeal and devotion to transform the face of rural India. What they lack are the tools and the understanding of a modern agricultural technology which can help them to achieve their aims.

### **transferring technology to the masses**

The technology is now becoming available but the mechanism for transferring it to the illiterate and small users in an effective manner does not exist. Ironically, there is a global communication network which

makes the latest findings of science available almost immediately to research workers in any corner of the world; but what is urgently needed is such a communication network at the service of the poor farmer in our country. It is not only knowledge that is needed, but an approach which will be able to supply the right knowledge and tools to the right people at the right time and place. The worker on the spot, whether he is an agricultural officer, a teacher, a gram sevak or a social worker, must be able to identify the local problem or need which will act as a catalyst for promoting co-operative endeavour in that area — it may be lift irrigation in one place, dairying in another, pest control in a third, supply of farm machinery or fish fingerlings in a fourth and marketing in a fifth. In this network, the mass communication media, particularly the radio, television, cinema and the language press, have a very important role to play; so have the research and the extension worker, the education system and the drive for technical literacy.

Dr. Zakir Husain had explained in his Sardar Patel Memorial Lecture how we could tailor education to the needs of economic reconstruction. Our political freedom depends on rapid economic growth and this in turn depends on our performance in agriculture. The future of our agriculture in its turn depends on the success with which we can help the small and illiterate farmers to take the many small steps which alone can lead to a great agriculture. Science can only show the way; it is for us, the educated and the privileged class, to provide the will.

# where should agricultural education go from here?

Philip H. Coombs

Throughout the developing world agricultural education is today undergoing an important transition from an era of institution building to a new era in which consolidation, reorientation, and innovation will be

This paper is a summary of some impressions of agricultural education that my colleagues and I gained during the past two years in the course of conducting an international study of non-formal education for rural development. Since agricultural extension and other forms of farmer training are among the major non-formal education programmes found in the rural areas of developing nations today, we paid much attention to these in our investigative trips to developing countries in discussions with many national and international experts, and in reviews of a wide assortment of documents. Though we covered considerable ground, it should be emphasized that we saw but a small fraction of the whole and that the impressions given here do not apply equally to all situations. Indeed, any generalizations in this field must allow for many exceptions.

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priority needs. The ideas and actions of this critical transition period are likely to mould the future for a long time to come. Hence it is especially important now to re-examine critically the objectives, underlying assumptions, efficiency and effectiveness of existing modes of agricultural education and to debate these matters widely and candidly.

Enormous strides have been made in just a few years in many nations—including many of the poorest ones—toward creating an infrastructure for agricultural education and research. In little more than a decade, literally thousands of new institutions and programmes have been created—agricultural schools, institutes, colleges and universities, research stations, farmer training centres and extension services of various sorts. All this required not only a large investment of scarce resources but, even more, an enormous outlay of energy and dedication by a great many people.

In evaluating the performance of these new institutions one needs to bear in mind their tender age and to remember that comparable institutions in more developed nations took generations to achieve their present level of maturity—with plenty of room still remaining for improvement. One must also recognize the heavy handicaps under which these new agricultural education programmes have been obliged to operate: inadequate budgets, shortages of talent, the low prestige and rewards so widely associated with careers in agriculture and rural areas, and, in many instances, government development priorities and agricultural policies (including land tenure policies) that have impeded rather than promoted vigorous agricultural and rural development.

On the other hand, there are also major weaknesses within agricultural educational systems over which the managers of these systems, at least in principle, have a more direct and substantial measure of control.

## a framework for assessment

The analytical framework suggested below for assessing these weaknesses involves viewing agricultural education in any nation as a “knowledge delivery system” whose overall purpose is to help farmers achieve better knowledge and understanding and to change their behaviour and practices in order to improve productivity, income and general well-being—for themselves, their families and the neighbours.

This "delivery system" has a variety of interlocking components, each of which has particular functions essential to the effective operation of the system as a whole. Thus, for example, the staff development function is entrusted to the agricultural colleges and to other formal and non-formal training organizations (such as agricultural secondary schools and inservice training centres for extension workers). The crucial knowledge-generating functions—the keystone of the system—is entrusted both to agricultural colleges and universities and to separate research centres and field stations. The extension function that links the whole system to its ultimate clients, the farmers, is entrusted in many countries to a separate "extension service".

The system's communications arrangements, among its components and between the system and its agricultural clients, are crucial to its effectiveness. For example, researchers who are generating knowledge must not only convey their findings to farmers in understandable form, either directly or through the extension personnel, but also keep constantly informed of the farmers' evolving knowledge needs in order to set future research priorities intelligently.

The acid tests of the whole system's efficiency and productivity are what kinds of new knowledge actually get through to the farmer, whether he finds this new knowledge feasible and useful, and to what extent he uses it and succeeds in improving his performance. The acid test of efficiency and effectiveness for each component of the system is

how well it performs its particular function relative to the resource costs involved in achieving these results. A serious malfunction in any one important component, or a breakdown in any critical channel for communication, jeopardizes the effectiveness and productivity of the whole system.

### **the record of performance**

Applying these analytical concepts and tests of performance to agricultural educational systems, as they have operated in developing countries, one cannot escape the conclusion that in most instances efficiency and productivity are disappointingly low—certainly much lower than the architects of these systems anticipated and encouraged others to expect.

There is a wide consensus among well-informed and sympathetic observers that on the whole—allowing for notable exceptions—agricultural extension services in Latin America, Africa and Asia have had at best only a marginal impact on agricultural production and income, and this primarily for major export crops. Where relatively dramatic breakthroughs in agricultural production have occurred (usually triggered off by the introduction of high-yielding new varieties of seeds), the regular extension service has generally played only a minor role in the accomplishment.

There appears to be two major causes for this relatively poor record. The first is that agricultural education and research systems are not behaving as systems. There is no generally accepted, all-embracing concept of what agricultural education is

and should be, no overall planning of the system as a system, no mechanism to ensure that the system's various components are reasonably balanced coordinated, and in communication with one another, and no adequate means for critically evaluating its performance.

The extension wing has generally been blamed if the response and performance of farmers are disappointing. But this is too narrow a view of the truth. While extension services typically have serious weaknesses, including some of their own making, their unimpressive accomplishments often result from the lack of adequate backstopping from the staff-development and knowledge-generating components at higher echelons of the system, and from generally poor communications and relationship throughout the system.

A second major cause of poor performance by agricultural education systems is inadequate interaction with the larger strategies, plans, and needs of agricultural development. The knowledge delivery system is but one sub-system of a larger agricultural and rural development system. If other factors needed for effective development—such as good ecological potential, adequate supplies of labour, seeds, fertilizers, insecticides, water and credit, as well as attractive cost-price incentives and access to good markets—are weak or absent, then education and knowledge of new technologies cannot alone produce an upswing in production and income. The complementarity of education and other development factors seems obvious; yet many exten-

sionists and other agricultural educators have often acted as if they believed that education and technology alone could precipitate development in an otherwise static situation.

As long as conditions of fragmentation within agricultural education systems exist, and as long as this lack of complementarity between educational inputs and other essential factors and preconditions for development continues, it must be expected that investments in agricultural education and research will produce much lower returns than would be possible under better planning and management.

### **need for clear objectives**

The first requirement for the efficient planning and management of an agricultural education system is the setting of clear and compatible objectives, not only on a broad national scale but area by area, clientele by clientele, and from one period in time to another. If the overall goal is to help all farmers to improve their lot—poor subsistence farmers as well as better-situated commercial farmers—then there must obviously be a differentiation of specific objectives, research and extension methods to fit the widely varying needs and circumstances of different sub-groups of farmers and of different agricultural zones. Moreover, once agriculture in any area really starts to move, the knowledge needs of farmers will grow quickly, requiring the research and extension components to move even more rapidly to keep one step ahead of these needs.

Again, all this seems rather

obvious, yet time and again one finds evidence of agricultural systems whose specific objectives and priorities are not at all clear, or whose behaviour belies their proclaimed objectives, or whose objectives are much narrower than the situation warrants and may even be contradictory.

The lack of appropriate and board goals shows up in the often superficial criteria used by various components for assessing performance. For example, extension services may measure achievement by the number of farmers contacts made per month. But some extension services have no really vital and valid "message" for the farmers (either because the knowledge-generating components have not produced one or because the extension agents are ill-informed or incompetent); nevertheless, they go through the motions of telling farmers things they either already know or else are in no position to apply. In fact, on the basis of the acid test suggested earlier, and regardless of the number of farmers contacted, such a service has achieved nothing whatsoever.

Similarly, an agricultural college that assesses its progress primarily by the number of graduates produced each year is using an inadequate measure. The real tests are how many graduates actually take up posts in the agricultural development system, how well prepared they are to perform effectively in these posts, and what the college is doing to assist the further career development and to meet the continuing need for knowledge among its former graduates and other personnel already serving in the agricultural system. Most

agricultural colleges would score badly on these tests.

In other parts of the system, the adoption of narrow objectives has often proved self-defeating. For example, most researchers and agricultural experts have been single-mindedly concerned with boosting physical production of selected commercial crops and have met their targets and measured their success mainly in these terms. Often they have ignored the basic economic and logistical constraints such as glutted or inaccessible markets—to such a strategy. The farmer is interested in increasing his net income at minimum risk, and sometimes the best way to do this may not be simply to increase the yield per acre of a particular commercial crop that the extension service may be promoting. For example, some Asian farmers specializing in rice production today may soon find it more advantageous to diversify their crops if a continued rise in regional rice production lowers the market price. Is the extension and research system prepared to help the farmers do what is best for them, or is it so preoccupied with pushing up production of a particular crop that it is leading farmers to act against their own best interest?

Concern solely with boosting production has also frequently led extension services to concentrate on the most affluent and sophisticated farmers who are in the best position to try new production-increasing technologies. A good case can be made for this discriminatory strategy, in the short term, if the only object is to increase overall production.

as fast as possible. But from a slightly longer-term point of view, the consequences of such a strategy for the distribution of income and land holdings and for the rural employment and the general welfare can be detrimental and socially very disturbing (as can the premature introduction of sophisticated labour-saving farm machinery).

These consequences cannot be dismissed by agricultural experts as "somebody else's problem". For better or worse, agricultural development strategies have profound influence on the shape of rural development. If the broader public policy calls not simply for increasing production and agricultural income but also for promoting social justice and preventing the wide gap between the privileged and the disadvantaged from widening further, then agricultural policies and strategies—including the behaviour of extension and research services—cannot with impunity be geared to the simplistic objective of higher production at all costs.

### **identifying and correcting the principal points of weakness**

In their future efforts to strengthen and improve the performance of agricultural education systems, developing nations and the external agencies devoted to helping them should employ a broader systems strategy. The piecemeal approaches previously followed, where-by different groups of specialists independently evolved limited "projects" for different components of the whole system, should be abandoned. What

is needed is an appraisal of the performance and adequacy of each component and the critical relationships between them in terms of the system's total needs and objectives, viewed against the wider context of the whole agricultural and rural development scene. Such a comprehensive diagnosis is bound to yield a combination of priority actions required to strengthen the system at its weakest points.

In many countries the prescription resulting from such a system-wide diagnosis might include several of the following action guides:

1. Top priority should be given to broadening and strengthening the system's knowledge-generating capabilities, including in particular:

- (a) strengthening economic and other social science research in order to better understand the farmer's whole situation and to ensure the overall soundness and feasibility of technical recommendations coming from biological research ;
- (b) broadening the scope of biological research to include attention to all the various input and ecological factors farmers must consider in adopting new technologies ;
- (c) bringing research as close to the farmers as possible, making greater use of their lands and animals for adaptive research and local trials instead of using experimental fields and conditions that are unrepresentative of the conditions under which farmers operate ;

(d) strengthening the flow of feedback information from farmers to research centres in order to fit research to the most pressing needs.

2. High priority should be given to improving the knowledge and competence of field-level personnel in contact with farmers, particularly by :

- (a) providing more frequent and relevant inservice training.
- (b) improving the utilization of such personnel by, for example, relieving them of inappropriate clerical tasks, and
- (c) reinforcing their efforts and extending their reach by using mass communication media.

3. Greater attention should be given to involving farmers directly in the diagnosis of their own problems and knowledge needs, thereby

- (a) creating and answering to a genuine demand for pertinent knowledge ;
- (b) creating conditions for communication among farmers about improved practices ;
- (c) helping the farmer think of himself as an active partner in the development process, rather than as a passive recipient of the extension service's aid, and
- (d) lessening the self-defeating authoritarian character of many extension services.

4. The formal educational institutions dealing with agriculture must be assessed on their contributions to the whole agri-

cultural development process, which in many instances, will necessitate a number of reforms :

- (a) The excessively academic admission standards and programmes of agricultural colleges should be revised to ensure the recruitment and retention of students more qualified and motivated for work in rural areas and to reduce the high attrition of graduates into non-agricultural urban jobs.
- (b) Practical field experience in rural areas should be in the programmes of agricultural colleges, strengthening their research capabilities generally and especially in agricultural economics and sociology, and deploying a substantial portion of their total resources to the further education and refresher training of personnel already in the system, including those performing extension functions.
- (c) Agricultural secondary schools, in so far as they lack clear objectives and well-defined functions to perform within the system, should be transformed to make them more useful for agricultural development or eliminated and their facilities converted for other purposes.

The foregoing list of needed actions is only partial and illustrative ; obviously each country must make its own gnosis and come up with its own prescription. The important point is that all items on such a list should be seen not as distinct and separate measures but as a well-coordinated pattern of actions designed to improve the perfor-

mance of the knowledge delivery system as a whole and to promote the overall goals of agricultural development.

### **a large vision of the educational future**

This discussion has focussed on agricultural education as a means of helping farmers to improve their productive techniques and income and thus to contribute more effectively to agricultural development. But it must be remembered that agricultural development *per se* is only one aspect of rural development —though a vitally important one. Viewed in the large, rural development involves the transformation and modernization of the entire rural economy, including the creation and strengthening of many non-agricultural economic units in the fields of commerce, manufacturing, and various service trades. This is a prerequisites for generating wider and more rewarding employment opportunities and better living conditions for the expanding rural population.

Rural development also calls for improved health and diet, housing, broadened educational opportunities, and general elevation of the quality of the life for rural families. Finally, it calls for the recasting of old social and political structures, for a broadened base of local leadership, and for much greater participation by rural people in deciding their own affairs and improving their own conditions.

Accelerated progress towards these broader objectives will require a diversified, wide-ranging and well-integrated "rural learn-

ing system" that includes, but goes well beyond, agricultural education. This broader educational system must be a life-long educational system, capable of serving rural people of all ages and both sexes with a great diversity of learning opportunities pertinent to their immediate needs and longer-range prospects. Of necessity, it must be to a large extent a non-formal educational system, not only because a vast expansion of formal schooling as we now know it is not economically feasible for the foreseeable future in many rural areas, but also because formal schooling by its very nature is not well suited to serving many of the practical educational needs and clientele concerned.

This larger vision of a rural learning system has profound implications for agricultural extension, farmer training, and other familiar local forms of agricultural education, as they now exist. No one can be sure right now what specific changes must be effected in these educational models inherited from the past. But we can be virtually certain that older models will rapidly become obsolete unless they yield to the broad needs of rural development and of a changing agriculture.

All this is a practical necessity, not a utopian dream. If rural people are to contribute to their nation's development and to share equitably in its fruits, they must be provided more adequate opportunities to learn the essentials for self-improvement and for playing effectively their different roles in the larger process of rural development. This is the broader perspective that agricultural education requires as it enters a new era.

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# problems in diffusion of agricultural innovations and functional education programmes

N.K. Jaiswal and H.P.S. Arya

Scientific research in agriculture is moving fast and practically every month new practices, new seeds, new machinery and new perils to crops are coming to light. Numerous institutional and non-institutional communication sources are actively engaged in transmitting technical know-how to the farmers. Various extension methods have been employed to expose the farmer to new ways of modernising agriculture. Demonstrations, radio broadcasts, field days, meetings, groups discussions, fairs, films etc., are some of the methods of equipping the farmers with scientific knowledge of agriculture. In spite of these efforts in communicating the new technology, it has been estimated that only 20 per cent of the available technology have been adopted so far and that too by only 10 per cent farmers.

Farmers' training and farmers' functional literacy programmes have been designed to facilitate and expedite the process of the transfer of improved farm technology from its source or origin to the ultimate beneficiaries, i. e. from research stations to the farmers. Such programme for farmers are meant not only

for imparting the knowledge but also the skill for putting new ideas into actual practice. It has been found in this connection that knowledge gained through word-of-mouth communication cannot be retained much longer to put in actual practice. Hence, in view of the limitations of face-to-face communication through such communication media, it would be quite appropriate to analyse the importance of functional adult education in respect of bringing about desirable change mainly in the knowledge, skills and attitude of the farmers.

A literate farmer is less prone either to fall back on his memory or depend on the advice of his fellow member at the proper time for application of improved technology. Instead, he would be inclined to consult the literature and then act accordingly. Functional adult education programme, thus does not suffer from the problems of replications. Further, our efforts in agricultural production should not be directed only towards the immediate increase but also towards sustaining it. This could be achieved only when the farmers are enlightened of their roles as progressive farmers on the one hand and responsible citizens on the other. All these do put a positive premium on the importance of functional

adult education.

The past evaluation studies on farmers training and functional literacy programme have however, indicated that these two programmes are not effective to the desired extent for diffusion of farm technology among the farmers. Any attempt to analyse the causes and factors relating to the effectiveness of these programme must be preceded by an analysis of different groups of factors which act as barriers to transfer of farm technology to the farmers. The present paper therefore, attempts to (1) analyse the process of transfer of farm technology; (2) identify the different factors which act as barriers of transfer of farm technology; and (3) study the role of farmers training and functional literacy programme in tackling some of the barriers in this process.

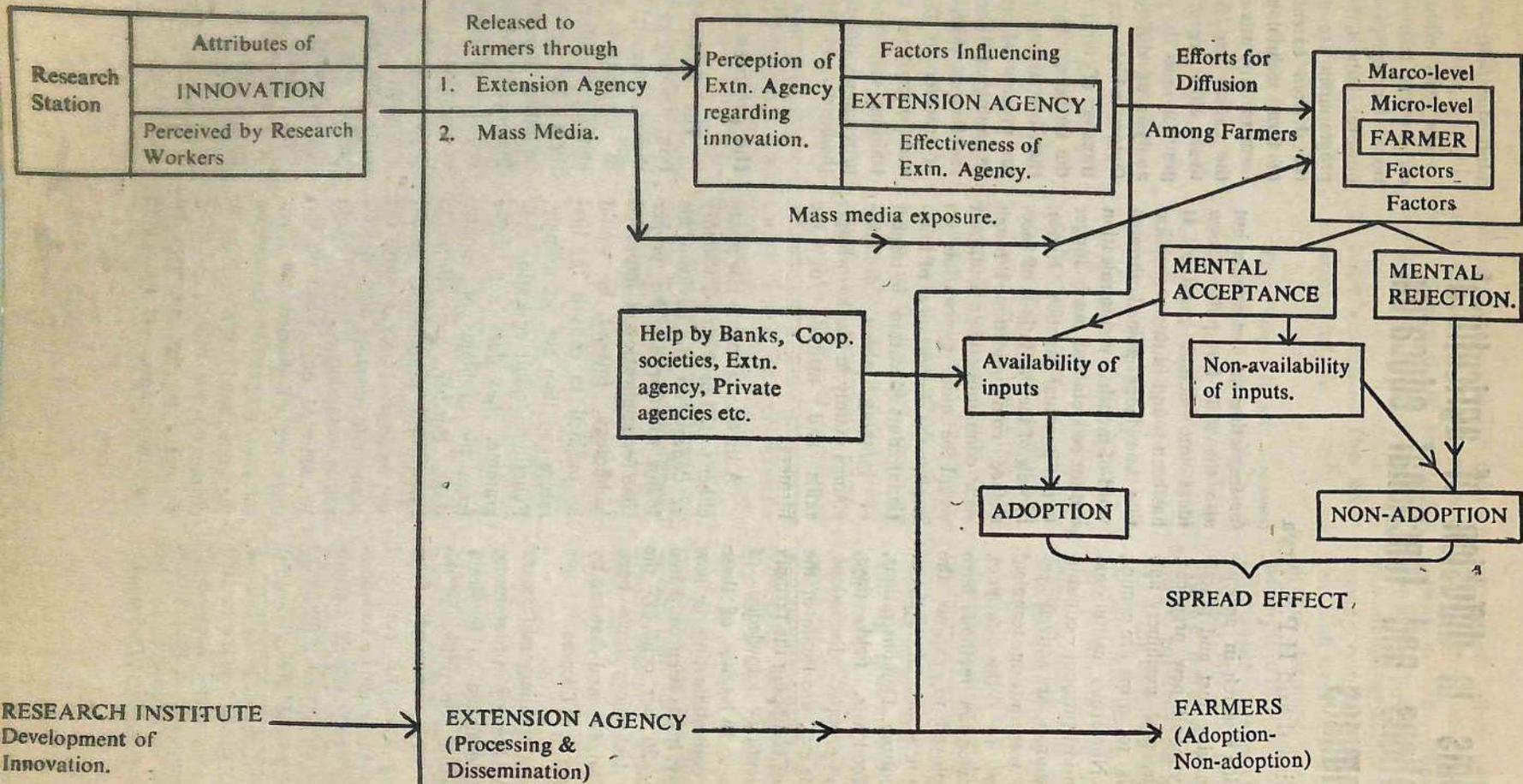
## II

### the process

The process of transfer of farm technology seems to have three segments, viz. (a) release of innovation from research stations; (b) efforts to popularise them by extension agencies including Farmers Training and Functional Education, and (c) response of farmers (acceptance or rejection). Each segment has its own group of factors interacting each other and simultaneously with the factor of other groups which ultimately affect the process of transfer of technology. Hence, a piecemeal study of a few factors or a group of factors does not provide the complete and true picture of the barriers to transfer of farm technology.

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## TRANSFER OF FARM TECHNOLOGY



To understand in a simple way the process of transfer of farm technology can be diagramatized in a comprehensive model that has been presented here.

The process starts from the research station whence an innovation is released to the farmers for adoption. Though in some cases it is directly communicated through mass media like radio, television and newspapers, due to various limitations with regard to the use of mass media in our country, the improved farm technology is mostly communicated to the farmers by individual and group methods through various extension agencies and persons engaged in the task of farmers training and functional literacy programmes. These persons are the first-hand receiver of the communication regarding the improved technology. They process and treat the message in the way that it may be easily understandable to the farmers.

The attributes of the innovation which moves from the research station to the field may not be understood in the same way by the field level personnel, as understood by the research scientist who developed the innovation. There are various thematic factors (factors related to the attributes or the theme of the innovation) which affect the process of farm technology. Further, the personnel of extension agencies, including those of the farmers' training and functional literacy programmes, apply various methods and approaches for communicating the innovation to the farmers for motivating them to adopt the

innovation. There are various factors related to the effectiveness of these methods and approaches which form another cluster affecting transfer of technology.

When the innovation is communicated to the farmers, it reaches them in their contextual situations which govern their behaviour in each and every aspect. The factors associated with the contextual situations (macro-level factors), such as agro-climatic conditions, form the third cluster of factors affecting the adoption of the innovation by the farmers. Lastly, it is the individual farmer who is to adopt the innovation. He is again influenced by many psycho-social and physical factors (micro-level factors), such as financial position of the farmer, which ultimately affect the adoption of innovation by him.

If all the factors are favourable, the farmer mentally accepts the innovation and tries to adopt it. At this stage, he is fully motivated to adopt the innovation. But, this is not the end of the process. Still the adoption depends upon the availability of required inputs at the proper time. If these inputs are available, the practice is tried on a small scale. If he is satisfied with the results, he adopts it fully. The rejection or non-adoption of the innovation is due to the barriers in the different stages of transfer of technology.

### III

#### the barriers

To understand clearly about the barriers to transfer of new

farm technology, the various clusters of factors can be discussed in the following sequence :—

#### thematic factors

Thematic barriers to adoption are those factors which are associated with the innovation (or the theme) itself. These include: high initial cost, low level of profitability, incompatibility, non-adaptability, complexity, complex consequences, non-divisibility, low level of communicability and time lag between adoption and achieving the results.

*High initial cost* : High initial cost of the innovation is one of the important factor governing the rate and extent of adoption.<sup>1,2</sup> Seed drills were not adopted by the farmers because they involved high initial expenditure. Similarly, hybrid maize was not adopted due to heavy investment on inputs in comparison to the local variety and that too without much surity of yields.<sup>3</sup>

*Low level of profitability* : The farmers are not impressed by 5 to 10 per cent of increase but it has to be 50 to 100 per cent. Before the advent of high yielding varieties, the adoption of local improved varieties was very low, because they were able to give only 10 to 15 per cent increase in yield over the traditional varieties.<sup>5</sup> However, adoption to a large extent is determined by the adopter's perception of profitability and not by its objective profitability.<sup>4</sup> A survey of farmers' perception surprisingly revealed that cultivation of High Yielding Varieties

of paddy and wheat led to a farmer in a loss of Rs. 459.00 and Rs. 299.60 per hectare respectively on the basis of current prices. How can one expect the adoption of this innovation by other farmers of this area if they also perceive the profitability in the same way.<sup>5</sup>

**Incompatibility:** Compatibility is the degree to which an innovation is consistent with existing values and past experiences. In a study of diffusion of innovation in U.S.A. it was found that a farmer who had already adopted hybrid maize was familiar with the concept of hybrid vigour and was more likely to adopt hybrid hogs and hybrid chickens.<sup>6</sup> Similar observations were made in case of adoption of hybrid sorghum.<sup>7</sup> Poultry farming in Indian villagers could not be promoted with much success because of its incompatibility with the vegetarian habits of our farmers, and with their prejudices against keeping the poultry birds.

**Non-adaptability:** Adaptability is the degree of tolerance for different variation in the agro-climatic conditions. The programme of hybrid maize failed mainly due to its non-adaptability in odd agro-climatic conditions in many areas.

**Complex consequences:** Wilkening and other have indicated that adoption of improved practices is determined by the farmers perception of its consequences.<sup>8</sup> Continuous use of fertilisers and canal irrigation is claimed by farmers to produce salinity in soil. Such type of perceiving lead a farmer to reject the practice. Likewise, introduction of heavy ploughs require strong draft power which was not available with the farmers.

**Complexity:** Several studies have indicated that complexity of farm innovation was more highly related (in negative direction) to their rate of adoption than any other characteristics of the innovation.<sup>9,10</sup> Compost making prac-

tice, where it was suggested that there should be a layer of waste material of about 9" "with an alternate 3" of cowdung with regular sprinkling of water to aid decomposition and then turning the same to another pit at a given time, could not be adopted even on Government farms because of its complexity.<sup>3</sup>

**Non-divisibility:** It has been reported that the visibility of an innovation was particularly influential on its rate of adoption in a less developed society.<sup>11</sup> The tardiness in promoting soil conservation practices was associated with difficult demonstrability of the innovations.<sup>2</sup> These studies indicated that non-communicability is a serious drawback of innovation in its spread.

### **factors related to extension agencies**

Several research studies suggest that the extent of promotional efforts made by extension agents is directly related to the rate and extent of transfer of improved farm technology. The efforts of extension agents including farmers training and functional literacy staff, are directed to explain to the farmers the relative advantage of an innovation over the idea it supersedes. Although the extension agency works as a channel of transfer of new technology, it is also a first-hand receiver of the innovation. The extension agents may not perceive the relative advantage of the innovation in the same way, as perceived by the research workers who release the innovation from the research station. It is the perception of extension workers and teachers and trainers of farmers' training and functional literacy programmes regarding the characteristics of innovation which largely determines their efforts to convince the farmers to adopt the innovation. Further, there are certain barriers which come in the way of proper working of extension agents and those enga-

ged in farmers training and functional literacy programmes and which distort the desired goal achievement.

**Undue emphasis on short-run effect:** Kivlin and others<sup>12</sup> in their study of the third phase of the Indian Project on the diffusion of innovations found that radio farm forums were significantly more effective than the literacy classes in imparting the knowledge and adoption of improved farm practices. But, this was only a short-run effect and would hardly solve the second generation problems of modern agriculture. The programmes of farmers training and functional literacy may not be able to produce short-run effect but it would produce long-run impact as the literacy is indispensable if the results are to be sustained.

**Lack of Motivational Approach:** Traditional approach towards literacy programme was to make the individual able to read, write and solving simple arithmetic exercise only, but new concept has given an extra importance to motivational aspect of the individual to develop himself. The extension programmes sometimes lack in motivational aspect which is nothing but moving back. Hence, every lesson to the farmers should consist the motivation towards betterment. Without it the results and interests in the Programme cannot be sustained.

**Lack of widespread participation in the programme:** Several studies have indicated that adoption of improved agricultural practices are confined mostly to big cultivators and the other farmers in lower socio-economic strata, who constitute the majority of the farming community, were ignored.<sup>3, 13, 14</sup> Nearly 70 per cent of the benefit of the extension programmes were observed to have accrued to the elite group.<sup>11</sup> Only 10 per cent of the farmers could adopt the modern technology in agriculture although more than three decades

have been invested so far on this problem.<sup>3</sup>

*Planning inadequacy* : Planning inadequacy on the part of extension agency and government is a serious barrier in adoption of complex innovations. Systematic planning according to the needs and available resources at the macro-level and micro-level is necessary for success of any extension programme. While making a plan for teaching farmers in respect of high yielding varieties, planners should consider the availability of resources in terms of fertilisers, seeds, irrigation, pesticides, etc. Inadequate planning may lead to job tensions in extension workers and frustration among farmers. Planning is done to avoid the barriers and to stimulate the promoting factors. Hence, planning should consider all possible factors starting from the thematic factors to the farmers' related factors.

*Lack of Competent Trainers* : The programme of functional adult education is very difficult and complex. The whole approach centres around a functional combination of imparting adequate knowledge and skill to the learners, i.e. the farmers. The knowledge of the trainers should, therefore, be commensurate, with the skill in using the knowledge in a practical situation. Thus, it is quite essential that the trainers should be such as to deliver the goods most effectively and efficiently. They should be given in-service training in order to lessen the gap between job requirement and job performance.

*Ineffective use of extension methods* : Functional literacy is one of the extension methods by which improved farm technology is communicated to the farmers for its adoption. Simultaneously, it combines various other extension methods to achieve quicker and sustained results. It is the skill of the persons engaged in these programmes in using these methods which affects the effectiveness of transfer of technology.

Demonstrations have been regarded as the most potential tool for the promotion of improved practices.<sup>15</sup> But, the demonstrations are not properly conducted and utilised for educating the farmers. There is evidence that even the farmer whose land serves as a demonstration plot often does not know the details of the new practices laid out in this plot and the actual economics involved in it.<sup>18</sup> Similarly, a lot of extension literature distributed at the common gatherings does not serve the educative role. It has also been observed that technical articles of serious nature published in the supplements of the newspapers are not read by 90 per cent of the readers.<sup>15</sup> Carelessness in selecting and using the extension methods leads to wastage of money, labour and time.

*Lack of coordination among various development departments* : Since introduction of an innovation leads to the requirements of several inputs in terms of seeds, fertilisers, pesticides, irrigation, credit etc., a close coordination is essential between the various sources and agencies to supply the respective inputs in proper quantity at the proper time. Extension of package of practices can only be possible through well coordinated organisation. Coordination of various extension agencies is also necessary to avoid confusion and duplication of work. Lack of coordination between the Adult Education Department, Agricultural Information Bureau, Community Development Department and the Extension Education Divisions of Agricultural Universities has been reported by several authors.<sup>15</sup> Different field workers of these organisations go to the same village almost for the same purpose. In addition, a few private agents and bank field workers visit the villages for more or less the same purpose. This creates confusion and duplication of effort. Sometimes, the recommendations are also contrary to each other. A proper coordination is, therefore, essen-

tial to avoid such wasteful expenditure on duplicate efforts and to delineate the specific role of each field workers.

*Lack of missionary zeal* : Lastly, extension work needs missionary zeal, enthusiasm, and service orientation of the agents. Community development programme was started in India with a missionary zeal and with great enthusiasm, but failed to sustain it after a little progress.<sup>16</sup> A diminution of dedication among extension agents often serves to hinder achievement of the desired level of success of extension programmes designed for transfer of technology.

### **macro-level factors related to farming community**

Macro-level situational factors refer to those related to the socio-economic system of the farmer as well as his bio-physical environment system. Therefore, the factor related to these system will affect his behaviour towards externally introduced innovations. The factors which may affect as barriers to adoption of improved practices are: unfavourable agro-climatic conditions, lack of transport and communication facilities, lack of economic and educational infrastructure, unfavourable Government policies etc.

*Unfavourable agro-climatic conditions*: The extent of diversity of weather and climate in India is greater than many other areas of similar size in the world. Apart from the spatial diversity of weather and climate, there are variations from year to year and region to region. Even more complex variations are found in soil types of different regions of the country and even within one region. The ecological factors determine what different types of production are to be and which species can thrive in the light of existing climatic, soil and biological conditions. Due to these reasons innovations suit-

able for one region are found irrelevant for the other region.

*Lack of transport and communication facilities:* Lack of transport and communication facilities are physical barriers for the movement of input supplies as well as for the agricultural produce. Timely supply of input on the one hand and timely movement of agricultural produce from farm to the consumers on the other necessitates adequate and cheap transport facilities. This is one of the main reasons why the new technology is not reaching to the interior regions of a state like Uttar Pradesh.

*Lack of Economic Infra-structure:* Most of the innovations in agriculture need high inputs, money in the form of credit or subsidy is a must for their actual adoption on the field. Many useful agricultural implements like pumping sets, disc harrows, threshers, sprayers and dusters are beyond the capacity of our farmers to purchase. Hence, if we really want to introduce such types of innovations we will have to provide an effective economic infra-structure in terms of co-operative societies and rural banks.

*Governmental policies as a disincentive:* Modern agricultural development on the positive side is really a function of Government policy and not a 'gift of nature'. Rapid growth depends upon quality of the policy decision. The formulation of sound agricultural development policies require careful discrimination in identifying the variables that are strategic now and the ones that will become so in the future.<sup>18</sup> The policy regarding ceiling on agricultural holdings, for example, has produced an obstacle in adopting new agricultural technology in respect of mechanisation of agriculture. Further, pricing policy, Government's taking over of wheat market and levy on agriculture producers also had some adverse effects on adoption of improved technology. According to a survey in U.P. it

was found that recent Government policies have discouraged the farmers to develop their agriculture.<sup>2</sup> One of the progressive farmer commented that he would sell all the sugarcane of his fields for fuel and not for sugar because the price of sugarcane fixed by the Government was too low. The survey further indicated, that the price fixed by the Government for the purchase of agricultural produce was about the same as three years back whereas the price of other commodities had increased from two to three times.<sup>5</sup>

*Lack of adequate emphasis on agriculture in the plan outlays:* About half of the total national income (45 per cent) of India is generated in the agricultural sector. About 70 per cent of the country's population derives its income wholly or mainly from agriculture and about 76% of India's exports are of agricultural origin.<sup>19</sup> Hence, agricultural development is crucial for nation's rapid, balanced and sustained economic growth. But it is unfortunate that only 12% of the fifth plan budget has been allotted for agriculture sector.

*Social Factors:* Social structure, values, norms and sanctions play important role in controlling and directing an individual's behaviour. For example, farmers of Bundelkhand spent most of their savings on court cases for which much of their valuable time is also wasted. Further, the values, norms and sanctions of the society become a barrier in adopting even to the profitable innovations. Brahmins still hesitate to adopt plant protection practices and high-caste farmers do not want to adopt vegetable farming.

### micro-level factors

There are certain factors which are directly concerned with individual farmers and which play an important role in deciding about the adoption of im-

proved practices. The barriers to adoption of improved practices connected to the individual farmers are: unfavourable attitude towards innovation, lack of knowledge about the innovation, illiteracy, lack of economic resources, unfavourable farm conditions, and other unfavourable social and psychological factors.

*Unfavourable attitudes and lack of knowledge:* This has been established by many scientists that unfavourable attitudes towards innovation and lack of knowledge about the innovation are negatively related to the adoption of improved practices.<sup>4, 21</sup> The farmers cannot adopt innovations which they do not know completely.

*Illiteracy:* Illiteracy was found to be a major obstacle in communication and adoption of improved farm practices.<sup>22, 23</sup> The scope of communication for and with the illiterates becomes limited. Education does not only facilitate communication but it also creates better and quicker understanding, achievement, motivation, aspirations and progressiveness in the individual, resulting in favourable response to improved farm technology

*Lack of economic resources:* Financial position of the farmers also decides the adoption of improved farm practices.<sup>24, 25</sup> Lack of economic resources not only reduces the chance of adoption but also creates unwillingness to invest in farming. One study shows that poor farmers when supplied with loan for adoption of improved technology in agriculture, utilised it for other non-productive purpose.<sup>26</sup>

*Unfavourable farm conditions:* Small farmers have been reported by many scientists to adopt less improved farm practices than the big farmers.<sup>22, 27, 28</sup> Further, conditions with regard to type of soil and its fertility, irrigation and drainage conditions and scattered holdings are the impor-

tant barriers to adoption of improved farm practices by majority of Indian farmers.

*Unfavourable social and psychological factors:* Several studies have indicated that social participation of the farmer is significantly associated with adoption of improved practices.<sup>27, 28</sup> Values like traditionalism,<sup>29</sup> conservatism<sup>28, 30</sup>, fatalism,<sup>21, 30</sup> low level of aspirations<sup>24, 30</sup> lack of change-proneness<sup>30</sup> and lack of risk taking willingness have been reported as main psychological barriers to adoption of new far technology.

### the 'barrier-complex'

From the discussions of the previous sections, it can be concluded that diversified sets of factors act as barriers to transfer of technology. All the factors which have separately been diagnosed above as being responsible for low level of adoption of improved agricultural technology, do not act independently or in isolation. They interact each other to form a barrier complex. This complex of resistances, with manifold intensity and strength act as impediment to transfer of farm technology from Research Station to the farmers. Since the pattern of the barrier complex varies from one innovation to another and from one farming community to another, any programme aimed at transfer of farm technology must take into account the micro-level and macro-level factors related to the farmers along with the quality of the extension approach and the characteristics of the improved technology.

A piecemeal approach to a study of the factors responsible for transfer of technology and adoption through any programme like farmers training or functional education etc. are not adequate and more comprehensive study is needed, in which the process of transfer of technology

and adoption can be studied in its totality.

## IV

### farmers' training and the barrier complex

The discussions presented in the preceding section, leads to the conclusion that the functional educational programmes must take into account the diversified barriers to the spread of farm technology in a farming community. The farmers' training programme should not be taken as the act of merely passing information about the improved farm technology to the farmers, rather it should be viewed as a part of total extension programmes. With regard to the thematic barriers the designers of farmers' training programme must be careful in selecting such innovations as the content of training which meets the immediate need of the farmers and are compatible to the macro and micro-level factors related to the farmers. Lack of adequate knowledge of the extension agents (which includes trainers in the farmers training and functional literacy programmes) was found to be one of the significant barrier to the process of transfer of farm technology. Therefore, immediate steps are needed for improving the knowledge and skills of the persons engaged in extension and farmers' training programmes. It is essential that these personnel must be convinced about the utility of the innovation before they start advocating it to others.

Lack of coordination between different functionaries was found to be another barrier. It is, therefore, imperative that the farmers' training and functional literacy programmes cannot be successful in isolation. Better coordination is essential among different programmes of development directed towards the farmers. An integrated approach in respect of different development programmes is necessary

for serving their cause of development.

Since the macro-level factors affect the adoption of innovation to a great extent attempts are being made to create social and economical infra-structure in the rural areas. One of the social infra-structure is the farmers' training centres itself. Attempts should be made to educate farmers through various educational programmes for optimum utilisation of these social and economic infra-structures. The limitation in the macro-level factors must be taken into account while motivating farmers for the adoption of agricultural innovations. The difficult position regarding the supply of the majority of farm inputs in the market must be communicated to the farmers in the right perspective so that they may not be frustrated when they make efforts for the adoption of the innovation.

The discussion in the preceding section points out that the socio-psychological and economic factors related to the individual farmer are strong impediments to the adoption of farm technology. It is, therefore, necessary that attention must be paid to the individual differences among the group of farmers who are participating in the farmers' educational programmes. In other words, such programmes should be problem-oriented in which each participant should feel that his own individual problems are given due attention. It hardly needs to be emphasised that farmers' training and functional literacy programme are essentially an extension programme and the principles of extension education must be kept in mind by their planners.

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# nontraditional study programme in agriculture

John C. Snider

*The University of Missouri — Columbia, College of Agriculture in cooperation with the Extension Division, is developing a Nontraditional Study Program in Agriculture. It will be the first such program of its kind in agriculture in U.S.A. The reasoning behind this new program and its operational plan are presented in this article and seem to have relevance for the Indian agricultural universities and colleges—Ed.*

The idea of carrying the classroom beyond the campus is not a new one among the land grant institutions. This is especially true in agriculture because from the very beginning the results of experiment station research were taken directly to the people who most needed it — farmers and their families. Agriculture has changed considerably since the early days of the land-grants and so has the educational content serving the needs of modern day farm families. The educational process itself has evolved and expanded to include the functions of research, teaching, and ultimately extension as need are identified and articulated.

## new concern

Over the past several years, a new concern has been expressed by Americans, especially, those engaged in full time farming or agribusiness. That concern calls for educational programs which carry degree-granting credit right to the agriculturalist and his/her family

wherever they may reside. The University of Missouri, College of Agriculture, is hearing this call and is consequently developing a Nontraditional Study Program in Agriculture. Although the program is still in its formative stages, the philosophical assumptions on which the new program will be based are quite clear. They are (1) Lifelong learning is a concept that has new appropriateness today and requires new patterns of support. (2) continuing education should be strengthened and made more available to adults interested in the various academic areas of agriculture. (3) The needs of some students for new options should not deny other students the option to stay within the traditional academic framework. (4) The College of Agriculture should design the Nontraditional Program so that it is related to the whole process of University curriculum development. (5) The program should be considered a part of the normal process of the University rather than an ancillary activity of the total program. (6) Systems of quality control should be built into the instruction and evaluation aspects of nontraditional study whenever possible.

Building on this philosophy, the College of Agriculture has begun implementing its innovative program on a pilot basis in a 13 county area in the north-western part of the state. Initial planning for the program began in July, 1973, and first applications were distributed eight months later in March, 1974. It is anticipated that first enrollments will occur in June, 1974.

## plan of operation

The plan of operation is delineated into the following categories: admissions, competencies, educational contract plan, faculty, time/space, financing and evaluation.

*Admission* of applicants will be based on several criteria: (1) A candidate should have completed at least 30 semester hours in higher education or the equivalent thereof to be placed in the program. It is recognized that certain relevant *life experiences* may be equivalent to formal study and therefore will be considered. In addition, the *CLEP* (College Level Examination Program) and certain *credit by examination* endeavours may be applied to the candidate's record for consideration by the admission's committee.

Applicants will be interviewed by the committee before final acceptance is determined. Interviews will be conducted either at the campus or by travelling teams which will schedule times and places throughout the pilot area. Interviews will include (1) assessment of all pertinent educational experiences that will be granted credit, (2) responsibilities of both parties in fulfilling requirements,

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and (3) the development and signing of an Educational Contract Plan.

Competency based education is a system of education which is applicable in agriculture today. It is a system that allows for individual attainment of prespecified levels of task-appropriate skills, attitudes, and knowledges. The system is based on three assumptions; (1) that the knowledges, skills, and attitudes requisite to given agriculture related tasks can be identified, (2) that the conditions for the attainment of those knowledges, skills, and tasks can be arranged for each individual student, and (3) that the above can be monitored and certified.

*The Educational Contract Plan* is developed by the faculty and student once the needed competencies are identified. The contract spells out the student's entire program, including the competencies to be mastered and the conditions to be arranged for the attainment of those competencies and ultimately completion of the Bachelor of Science in Agriculture Degree.

*Faculty* will consist of two classifications: (1) the regular College of Agriculture faculty and (2) other state and local leaders who are not directly associated with the College of Agriculture but who are indirectly associated because of their background and training, their business and professional experiences, and their interest in the Nontraditional Study Program.

The regular faculty will be classified as *Faculty Advisors* and the others described will be titled *Faculty Mentors*. Examples of *Faculty Mentors* might be Area Agronomy Specialists (Extension

Service) willing to serve as Faculty Mentors for students with major interests in agronomy who live and work in the same area and who are enrolled in the Nontraditional Study Program. An other example might be an established businessman who had expertise in forestry or economics or engineering, who would appreciate the opportunity to serve as Faculty Mentor for University of Missouri Nontraditional Study Program students from his hometown. Faculty Mentors will also serve as liaison between the Faculty Advisor and the student.

*Time/Space* requirements depart from the traditional. For instance the concept of time assumes new dimensions. Employees of a farm implement dealership cannot necessarily complete their Independent Study course in Agriculture Economics in a 15 week period of time. Job responsibilities might require 22 week for completion. A homemaker, on the other hand, might master a rather engaging competency in horticulture by meeting all conditions defined by her Faculty Advisor within a period of 60 days. Hence, because of the varying needs and interests of the clientele groups that will be enrolling in the program, very flexible time options are necessary.

*Space* is another concept that depart from the traditional. The notion "the state is our campus" becomes very real. Physical resources for instruction will include, in addition to the University of Missouri campus, area Extension facilities, other college campuses, public vocational-technical schools, farms, agribusiness, local libraries, etc. Space

becomes very relative to the individual student's needs and the constraints under which he or she must function.

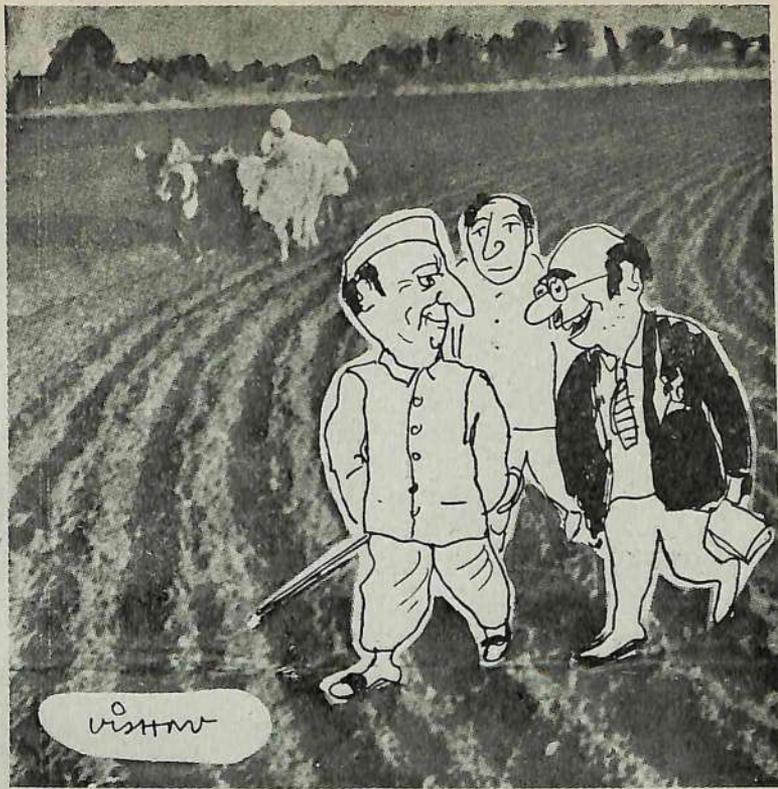
*Financing* this type of program will hopefully not cost anymore per student than the "traditional" academic programs. Fees for the nontraditional program students will be comparable to those paid by traditional program students. In association with the University, the Kellogg Foundation is providing additional funds to assist in initiating this "first" in agriculture. Their assistance will allow for innovation in areas where fixed or traditional budgets currently lack flexibility.

*Evaluation* will consist of two types: (1) process and (2) product.

*Process* evaluation will consist of continuous appraisal of the action and interactions of the decision-makers involved; i.e., faculty, administrators, and students. *Product* evaluation will consist of two levels: (1) the evaluation of individual students on the basis of competencies attained, and (2) the overall effectiveness of the program at the end of each academic year.

## the hope

The program herein described is the beginning of what hopefully will become a functional program of the University. It will require much in the way of testing and modification. It will require the involvement of faculty and administrators alike who are interested in exploring additional ways in which higher education can best serve its clientele and indeed its constituents. It is believed that the program will complement and supplement the many fine existing programs of the University of Missouri, College of Agriculture.



*“One school of thought holds that the green revolution is purely an invention of the press . . .*



*“Here we teach them to sow what they reap . . .”*

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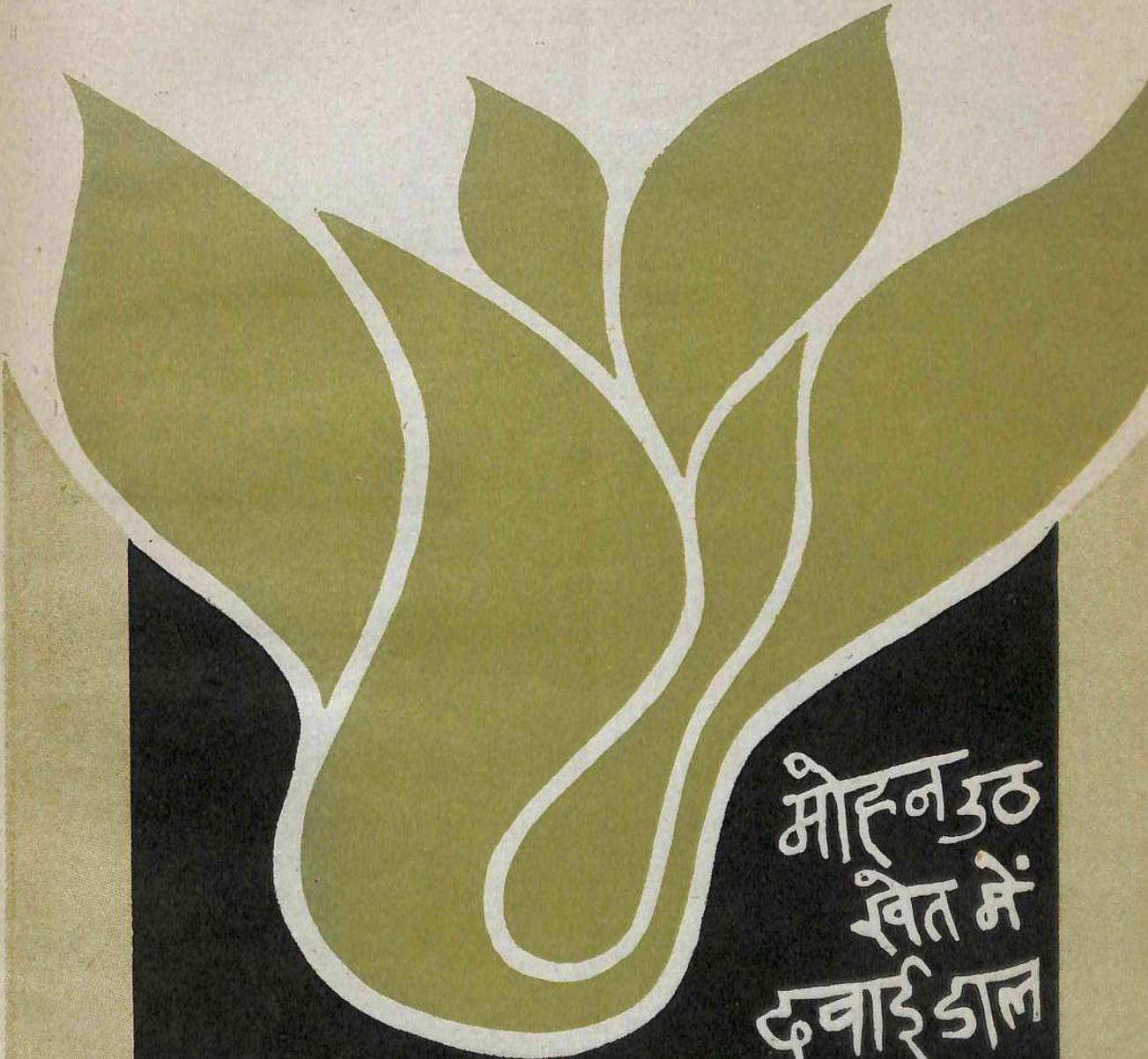
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# methodology or androgogics of farmers' training

J. C. Mathur

Everybody recognises that training adults is not the same thing as training the young people. Still, in India as well as other developing countries the teaching techniques employed in training adults, whether farmers or workers or women, are hardly different from those adopted for children. It is true that in the teaching of literacy during the last four decades various methods have been evolved and some tried with success. But they are not generally based upon adult psychology. When it comes to training that involves the communication of subject matter and information then the usual approach is the curriculum. The curriculum is divided into parts arranged in an order ranging from theory to practice. Generally, it is believed that first the basic theory should be conveyed

and on that foundation the practices of skills that are to be taught could automatically follow. While recognising that the aim of adult education is to form attitudes, to give information and to teach skills, these objectives are generally approached in no way different from those for young people. Perhaps the only difference is that in the case of young people sometimes the emphasis on the play-way is also noticed.

But the time has come to emphasise that pedagogies for adults particularly in the developing countries (where the environment of learning is not charged as much with the automatic learning process as in advanced societies) have to be specialised. What is the justification for this kind of pedagogics? In the first place, adults are men doing some

jobs. The concept therefore of preparatory education is quite irrelevant. Moreover, with the brain cells having been set already in the case of an adult, the scope for learning by rote and for the exercise of the faculty of memory is inevitably limited. An adult should not be expected to learn things as a child does, willingly or unwillingly. The adult faculty for assimilation and his urge for curiosity are aroused in the face of practical problems whether of his family or his society or his place of work. In such a situation his personality gets mobilised. Consequently his faculties are enlivened and even the unutilised cells in the brain are activated. Finally, an adult finds the class room atmosphere irksome. It is not merely a question of discipline. It is a question of subjecting oneself to forced childhood as it were. Sitting in a class room and being instructed as if he were on the threshold of life is an experience that no adult relishes.

## androgogy

There are several other sociological and psychological grounds on which the science of pedagogics for adult learning is being built up in several advanced countries in the world. In fact, a new term is now gaining currency, *Androgogics*. Dr. Adams, a Venezuelan adult educator has tried to differentiate and underline the priorities as well as the approaches that are necessary for adult teaching. In India the entire adult education movement in the past was so much inspired by the ideology of the thirties for bringing about dramatic results by galvanising

the people that such things as methodology appeared insignificant. We have, however, paid a heavy price for it. Adult Education has hardly made an impact even though the efforts go back to the first Congress Governments in 1936-37. Now, the time has come to consider the special elements of adult pedagogics. In so doing, however, the temptation to prescribe uniform principles for all kinds of adult learners will have to be resisted. Indeed the very idea of organising mass adult education on a uniform pattern for the whole country or for the entire state or a district is misconceived. Adults function in groups based on professions or neighbourhoods or like interests. Therefore, both the organisation as well as the methodology of teaching will have to revolve around this kind of groups.

## **motivation**

One of the primary objectives of farmers' training is to enable the farmer to become investment-oriented and a highly productive unit in the society. Motivations among Indian farmers initially resulted from the introduction of a new technology that could make dramatic difference in the production potential. By new technology I mean not merely the new seeds which are of course the outstanding feature in the current break-through, but also include ground water exploitation, water management, multiple-cropping, crossbreeding of cattle, the new lines of improved poultry, new methods of storage etc. It covers the whole range of agricultural technology embracing the use of new skills, new machinery and new inputs.

Another motivation today has come from the desire to have good prices. This course followed from the conscious policy of Government to give remunerative and more than remunerative prices to farmers during a critical period of Indian agricultural development. From the farmers' side it also means the desire to know the 'ropes' of getting the new prices; how to avoid the clutches of middlemen, how to get at the market, what kind of transport to use, how to hold back the stocks and so on. A further motivation is to get at the investment sources. This includes of course credit and credit not merely from cooperative societies but also from banking institutions. There is a variety of resources for farming and there is also now a variety of sources for those resources. The farmer in several parts of the country is keyed up to seek information and to learn the ways of using these resources and of manipulating them and somehow or other getting at them.

## **the instructors**

It is in this background of the new motivation, that the definition of the teacher or instructor or educator has to be completely revised in the context of farmers' training and education. The farmers' educator is not just an instructor who holds classes. He is also not the school master who on a part time basis agrees to take farmers' classes in the evening.

Educators for the farmer are now drawn from many ranks. For example, the research scientist who hitherto was satisfied within the walls of his laboratory

is gradually becoming the farmers' guide and instructor. Therefore, he has to learn and know about Androgogics. Agricultural engineers who were only demonstrating and selling or fabricating agricultural machinery have now to become teachers themselves for enabling the farmers to use and maintain the machinery.

Agents of various credit institutions are no longer concerned only with complying with instructions from above for giving credit to viable debtors. The concept of supervised credit had come long time ago but it is becoming, a reality now. Supervised credit implies that the functionaries who are responsible for giving credit have to know and to watch the uses to which the credit is put. Therefore, they have to learn sometimes to guide him and to answer his questions, even to initiate him into the use of more paying practices that would enable him to return the loans and to take more loans and to open his own deposit accounts. Likewise secretaries of marketing committees are no longer to be concerned only with organising orderly auctions. They have to see to the interests of farmers and if they are to do so effectively, they must be in a position to impart to them some of the methods of holding back the stocks, storing them and watching price trends and knowing, in other words, their interests in the tricky grain markets. Those who have to sell seeds, fertilizers, etc., have not only to publicise their commodity but also to teach beneficiaries how to use them. Personnel of these categories are therefore as much instructors as the extension agents or extension

officers whose responsibility hitherto has been to communicate what is supplied to them by others.

All this has to change and therefore the methodology of training adult farmers is a matter of concern to the vast spectrum of personnel in different positions who are all becoming members of a new fraternity of educators.

In the light of the experience gained so far, particularly in India, the principles explained below would seem to be desirable in the methodology of educating adult farmers.

### **problem identification**

The first principle is that of problem identification which involves the problems that arise from the application of new technology by farmers, cattle breeders, poultry raisers or any kind of persons engaged in farm occupations. It arises also from the particular conditions in a local area. These may be topographical, or may relate to soil conditions, climatic conditions or economic conditions, etc. The problems could also be due to economic and governmental regulations which sometimes come upon the farmer like an avalanche. The identification of problems of these kinds and others should be the first step before an educator or instructor or a media man who thinks of approaching a group of farmers. In this context a uniform curriculum for a large area would not hold good. For every area and group of people a new list of problems has to be drawn up which could be the basis of the local curriculum.

### **correlation**

The second principle is the principle of correlation. This is not a new word. Several decades ago, Mahatma Gandhi, who in his own right was one of the greatest teachers had popularised the use of correlation in the context of basic education for children. That principle is far more relevant for adults than for children. What Mahatma Gandhi meant by correlation, that is to say, relationship between learning and doing or picking knowledge through doing is something which should now be thought of afresh. For adult farmers this principle is indeed germane to the starting of the learning process. A farmer would not be interested unless the learning is more or less directly related to the doing and earning process.

But this is not the only implication of correlation for farmers' training. Correlation here also means to establish links between various operations of the farming process. These operations are like different limbs. A doctor who tries to treat different limbs without pre-judging the relationship of these with the other organs of the body is sure to run into trouble. Similarly, the principles of correlation would imply that the man responsible for water management should be well aware of the requirements of fertilizers : the person responsible for promoting pesticides of a particular kind has to be conscious of its impact upon genetics and so on.

Another implication of correlation is that a farmer is concerned with several agencies. Some are that supply credit,

some that give inputs, some that provide guidance, adaptive research and so on and the principle of correlation implies that before approaching the learner these different kinds of agencies and their role in specific farm operations should be identified and in the communication of information and skills the material provided and the emphasis given by these agencies should be borne in mind.

### **participational demonstration**

Next we come to the principle of participational demonstration. Participational demonstration is different from the kind of laboratory demonstrations to which scientists and educators have been long used and to which plentiful references are made in text books on education. Participational demonstration implies demonstration at the place of work of the learner. It implies also demonstration of a kind in which the learner would actually be trying out the operations upon which the demonstrator (he may be a scientist or an extension agent or a supplier of input) places emphasis. Participational demonstration cannot be successful if the level of the demonstrator is, from the professional angle, poor. That is one reason why in the fifties the V.L.Ws were not effective demonstrators. It is only when scientists from institutions like IARI and Agricultural Universities went out into farmers' fields and guided demonstrations that the participational demonstration concept became a reality. The same thing happened when in IADP as well as Indo-German and Indo-Japanese Projects, scientists of high level

came forward to involve the farmer on his own land. Participational demonstration is perhaps one of the essential components of adult pedagogics.

This kind of participation is different from that by the young learners. Correction here is to be of the minimum. Correction comes out of discoveries of mistakes by adult learners. That is why in participational demonstration do's and don'ts are not the right approach. It is the doing by the demonstrator, the avoidance of mistakes by him, sometimes in a stage-managed manner, which would carry conviction with the farmers.

### **uptodateness**

The fourth principle, for want of a more precise expression, I would call the principle of uptodateness. This implies fast communication between research and training. Many new names have been used for this. Sometimes it is called adaptive research, sometimes field problems units. But the basic thing is that the instructor whoever he be, has to be up-to-date.

In the case of young learners it is possible sometimes to do without being uptodate because certain basic aspects of life are to be understood by youngsters, aspects which never grow stable and which are the foundation of human personality. But here we are considering people whose personality has already been formed. Therefore, if the instructor wants to carry conviction with the learner he must himself be up-to-date. He should be reading latest journals. He should be having discussions with scientists,

he should be carefully scanning newspaper columns for the latest reports. He should verify the practices by writing directly to authorities. Above all he should keep his own collection of circulars of Government departments containing new instructions for farmers.

How few instructors including extension agents do so? They are sometimes ignorant even of the circulars given by the Directors of Agriculture or have to ransack their papers in order to find them. There are many extension workers in India who are indifferent to farm journals both foreign and Indian. They do not have time for them, or they don't find time. But communication by such people would be ineffective because the farmer is looking for and getting at new information through the radio and through films. They are living in the environment of new media in which communication is rapid. Word travels fast. Gossip is not merely the gossip of scandals. Gossip is of novelty and therefore the curiosity of human minds infects farmers also and he gets to know things. If the instructor is unaware of new things he would be hardly effective in his task.

### **equality in communication.**

Another principle no less important is the principle of equality in communication. What does this imply? It implies an environment of equality between the instructor and the learner. This is the commonest weakness whether of the person taking a class or of a person explaining in the farmers' fair some

new exhibits to visitors or of the supplier of inputs. However, the person who least observes this principle of equality in communication is the professional teacher and government Extension Officer. Both of them tend to treat the adult farmer as a somewhat inferior person mentally. This attitude has to be given up. Inequality is a great barrier in communication.

But perhaps this is also true of the relationship between the media and the receiver of the message of the media. Often we hear radio talks addressed to farmers that are patronising in tone that do not take into account the fact that the farmer is a man of wisdom and experience, that he may be deficient in some recent knowledge but he is not to be treated as a child. He has to be addressed as a person to whom suggestions should be made rather than instructions given. Again, those who prepare posters and other kinds of audio-visual material have also to bear in mind the principle of equality in communication.

Perhaps one of the reasons for the success of the wall newspapers of the Indian Information Ministry is that the wall newspaper approaches the adult citizen in his own right, and not as somebody inferior to whom information is to be conveyed. Wall newspaper is almost the symbol of adult equality and gives to the reader the experience that the reader of one of the national newspapers might get.

### **continuing self-study**

The last principle to which I would like to refer is the principle

of continuing self-study by learners. Unless this principle is introduced right from the beginning much of the impact of farmers' training camps, demonstration courses, etc. would be lost.

I have observed several examples of this omission. I visited a centre in a part of India where young farmers had been given a course of about two months and seemed to be quite excited about it. There had been several courses of this kind. I asked the principal of the Centre if he had kept in contact with the former pupils of his courses, whether he could give me a list of the alumni and their addresses. I was disappointed to see that no such attempt had been made. It had not even been thought of. This is true of many centres that were started during the fifties that ceased to be the starting point of an emblazoning trail.

But the question is not merely of keeping in contact with alumni. The more basic implication of this principle is that learning is a life-long process for a farmer as for any other professional man. So long as he is at the plough or the tractor or in the cattle yard he will have to continue to recharge his battery, so to say, through practising over and over again the new skills and securing access to new information. Even with the best of intention and resources it is not possible for us in India and for any other developing country to have a network of instructors for all the millions of farmers for all times. They should therefore be enabled to keep the cycle going once they have been initiated into a training course. This can be done in two ways.

It can be done by putting the farmer learners on the mailing list of addressees for receiving new material. It may be a kind of correspondence course. It may lead to a special bulletin containing columns that will answer questions by farmers. It may mean reservation of special columns in national newspapers. It may provide also for sale of books on subsidised prices. It may also provide for special kind of gramophone records containing talks by top level researchers on problems of special kinds of diseases or pests. It may also mean film strips given to individuals who might afford to have their own slide viewers.

Another way of acting upon the principle of continuing self-study by learners would be to persuade them to form themselves into groups. Small groups are not only useful in the initial process of learning, they are also important in the subsequent process of self-learning and self-study. Adults can learn best by talking to one another. This is an effective way of defreezing the cells of the adult brain. Discussion groups have a psychological basis. But there is also a practical basis. These need not be merely discussion groups. They could be discussion-cum-production groups. They should be useful to the farmer in enabling him to get at the latest government circulars and also to reach to offices and centres from where he can get his inputs. In these groups elaborate forms of banking and other credit giving institutions could be examined and understood by participants in any credit programmes. Continuing self-study thus can take various forms but it has to be planned

at the same time as the initial training programme is planned.

### **mass media in instructional methodology**

The consideration of 'Androgogics' for farmers would not be complete without a reference to a new factor that is making a profound impact upon instructional methods today—practically all over the world, and more so in developing societies. I wish to examine the role of mass media in instructional methodology for adult farmers. Radio, television and films have all been used for carrying information. But their use specifically for instruction of adults has hardly been attempted for farmers in India. Using media to assist the adult literacy instructor seems a long way off. Some indirect experience is however available, for example of the impact of the media on the kind of language used in programmes for farmers and its relevance to literacy-teaching.

All India Radio uses local dialects in its programmes for the rural people, broadcast from its regional stations. Apart from encouraging local folk songs and other forms, this facilitates communication and understanding. In Central Asian Republics of the Soviet Union and in Azerbaijan, Soviet authorities during the great drive for literacy in the early thirties used the local dialects for the first step towards literacy by the rural people. Standard Russian equivalents came as the second step. This put less strain upon the adults in the learning process. The experience in Ethiopia on the contrary, has been that non-Amarrhic speaking groups of farmers could

be introduced to Amarrhic without much difficulty if the instruction is on matters related closely to their work. The commercial Indian film which as entertainment is spreading fast in rural areas uses the standard form of Hindi though a little simplified. The entertainment film is, however, far removed from instructional ones. Communication is undoubtedly easier with the dialect, initially. When new technology has to be communicated fast, the use of the dialect for sentence-formation would be preferable. In literacy teaching also, the Russian experience seems relevant.

Another influence of mass media on instructional methodology for adults has been that the instructor can choose from a variety of patterns of presentation that the communicator has demonstrated with success on the radio, T.V. etc.

In 1968 UAR had a television literacy project in which both academic and broadcasting expertise was used in transforming the subject matter of the national literacy programmes into television scripts, bringing in all the audio-visual aids to put across the lessons to the learners (illiterate workers and peasants), in a useful and interesting manner. Films, slide dramatization, cartoons, puppets, etc. all were used. For teaching Arabic to women inside their homes, UAR sound radio had in March, 1969, radio programme of 15 minutes duration, broadcast 6 times a week and directed towards individual listeners. The programme included songs, sound effects and explanations of the various components making up compound

Arabic letters.

A Unesco survey by John Maddison gives an account of an earlier experiment of televised literacy lessons in French in Ivory Coast. The 75 minutes broadcast was given by a team consisting of an elementary teacher from France and an Ivory Coast educator. The broadcasts were live. On a felt board was pinned copious visual material and a strip of thick paper  $45 \times 9$  cm on which were written words, phrases, complete sentences not exceeding 20 letters spaces or signs. Drawings on white cardboard or straw, made in black ink often write colour wash background for emphasis, photographs cut out if the background was too prominent. The purpose of the illustrations was to make the written words and sentences and the reading or grammatic problems easier to grasp. A dozen texts from the books were illustrated by a short silent film accompanied by a synchronised reading of the texts.

In Mexico, Radio TV and mass literacy for adults have a common course. Radio TV lessons are for self-learners. Each campaign lasts about six months, 90 kinescope films or Videotapes and 114 radio tapes were used for the campaign. Text-books are provided free by Government. In USA for approaching the illiterates or semi-illiterates in the midst of a highly literate society and a well-developed audio-visual system the attempt has been to use the TV camera to project the image of a carefully selected instructor who could make full use of the visual capabilities of the TV. The course was planned to present content in

small learning units of gradually increasing difficulty at a slow pace with frequent repetitions and other tricks the Algerian National Broadcasting Company has been able to enrich the literacy programme of the National Literacy Centre in Arabic.

### **animator**

Media programmes for adult learners often use the dialogue method which stimulates discussion among groups of listeners or viewers. This has led to the appearance of a new educational auxiliary, an animator or group-leader who though not a professional instructor is able to encourage lively participation by members of the group. Participation in discussion stimulates self-expression and in turn conscious efforts at assimilation. The group leader conveys to the radio or TV station the views and queries of the group. Reference to these in subsequent broadcasts fosters self-confidence among members of the group who have also a sense of achievement as they progress with the programme.

The greater the attempt to transform the environment of the classroom into that of a committee the greater the chances of success with adults.

Communication through the use of a multi-media approach is a national necessity in countries with limited resources seeking lasting results. Programming by media calls for planning at the same time as the planning of farm production. The complementary role of sound radio, television, film, filmstrips and other aids for a single series of lessons would be possible through a systems approach.

# farmers functional literacy project in india

N. A. Ansari

## introduction and coverage

The Farmers Functional Literacy Project (FFLP) or the *Kisan Saksharata Yojana* is an integral part of the Farmers' Training and Functional Literacy Project jointly undertaken by the Ministries of Agriculture, Information and Broadcasting and Education and Social Welfare. The FFLP aims at improving the efficiency of farmers engaged in the cultivation of High Yielding Crops. The programme provides well organised courses to the illiterate farmers, which would permit them not only to get literacy skills, but also agricultural information, which could be immediately used by them. Thus, the FFLP is directly related to a high priority sector of national development.

Started in 1967-68 in 3 districts, the functional literacy component of the integrated project progressively moved to 10 districts in 1968-69; 25 in 1969-70; 60 in 1970-71; 80 in 1971-72 and 106 in 1972-73. By the end of quarter ending September 30, 1973, 1,43,913 illiterate farmers had passed the functional literacy classes. Another 1,35,520 adults were report-

ed to be currently enrolled in the functional literacy classes.

Although, the progress both in relation to the districts covered and adults made literate has been considerable, there are some districts where the programme is still in its initial stages and preliminary steps like finalising the base line survey, identifying areas for operational purposes and the selection of personnel are being taken. Thus, although the Fourth Plan target in relation to the number of districts to be covered has been achieved, namely, 100 districts, the achievement in respect of the number of adults to be made literate is much below the target. Information from the concerned districts is still being collected and effort is being made to get accurate and complete figures.

Qualitatively a number of measures initiated since early 1970 have greatly helped in disseminating the understanding of the concept of functional literacy among the workers at different levels and in improving the methodology of the programme. Some of these measures started with the quick survey of 10 functional literacy districts in April, 1970, and followed by 4 Regional and National Workshop on functional literacy between August, 1970 and January, 1971. These culminated in the produc-

tion of the Hand Book on Farmers' Functional Literacy Project, which served as a comprehensive guide to the functional literacy workers by various levels. This Hand Book is now being revised in the light of the experience gained in the implementation of the programme.

## administration

The Directorate of Adult Education which serves as the technical and academic wing of the Ministry in matters relating to adult education provides advise and guidance to the State Governments and organisations implementing the FFLP. At the state level, an officer of the rank of Deputy Director looks after the implementation. Generally, the District Inspector of Schools is responsible for the implementation of the programme at the district level with the help of the supervisors and teachers at the field level. With a view to ensuring the proper functioning of the Project, Government of India has conveyed its sanction to appoint full-time Project Officer at the district level in place of part-time officers, 34 Project Officers have so far been appointed. Similarly, full-time supervisors are being appointed in place of part-time supervisors. The remuneration of the functional literacy teachers has now been increased from Rs. 20/- p.m. to Rs. 40/- p.m. and it is hoped that suitable teachers would be available.

## orientation and training

Before March, 1971, the Department of Adult Education of the National Council of Educational Research and Training

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organised orientation courses for District Officers incharge of the Project and conducted training programmes for the supervisors. The Department also assisted the State Governments in the organisation of training programmes for functional literacy instructors by sending peripatetic teams of trainers to different States. In addition to these orientation and training courses, four Regional Workshops on Functional Literacy were organised during 1970-71 at Hyderabad (Southern), Jalgaon (Western), Delhi (Northern) and Pusa (Eastern). These Regional Workshops were followed by a National Workshop on Functional Literacy Project held at New Delhi in January, 1971.

Among other recommendations, the National Workshop suggested that a batch of 3 to 4 key persons may be selected by each State Government, who would serve as a team of key resource personnel for conducting orientation and training courses for the teachers and supervisors. These Training Cells would be responsible for organising all training programmes within the State. The training of the key resource personnel was, however, to be organised by the Central Directorate of Adult Education in collaboration with the Regional Colleges of Education and other voluntary agencies engaged in adult education. The criteria suggested for the selection of key resource personnel were that (a) they should, preferably, have an agricultural/rural background; (b) they should be connected with some training or educational institution; and (c) they should be sufficiently senior persons having experience and standing in the field of adult education.

In connection with the Orientation Course for the key personnel a Committee was set up by the Directorate of Adult Education to prepare the syllabus of the Course. The Committee consisted of representatives of the participating Ministries of Agriculture, Education & Social Welfare, Information and Broadcasting and other organisations such as ICAR, Central Institute of Education, voluntary organisations and the Directorate of Adult Education. The draft course outline, prepared by the Committee served as the basis of these orientation courses.

It would be desirable to mention some details of the draft course outline. The outline was divided into three parts. Part A dealt with introductory remarks. These remarks were based on the experiences gained in this country as well as in other countries covered under the Experimental World Literacy Programme and contained in UNESCO documents and other publications in this field. These also included criteria for identification of the key personnel and their role in relation to other participants in the Functional Literacy Programme. Part B dealt with the course contents. It consisted of four units dealing with Farmers' Training, Agriculture, Radio Support and Functional Literacy. List of lecturers, resource personnel, topics suggested for group discussion and training materials were also prepared. Part C dealt with the plan of the Orientation Course, including details relating to the duration of the Course, methods of training and time schedule etc.

Prior to March, 1971, the

Department of Adult Education (now the Directorate of Adult Education) organised 9 Orientation and Training Courses for supervisors and District Level Project Officers from different States of the country. About 200 officers in these two categories participated in the courses. In addition, eleven peripatetic teams of officers from the Directorate were deputed to assist the State Governments in organising training courses for their functional literacy instructors. In pursuance of the recommendation of the National Workshop on Functional Literacy Project the Directorate in collaboration with the Regional College of Education, Ajmer, Farmers Training Institute, Durgapura, Jaipur, and Literacy House, Lucknow, has so far organised four orientation courses for key personnel in functional literacy which were attended by 55 participants from the State/Union Territories of Andhra Pradesh, Assam, Bihar, Gujarat, Haryana, Himachal Pradesh, Madhya Pradesh, Mysore, Orissa, Punjab, Rajasthan, Tamil Nadu, Uttar Pradesh, West Bengal and Delhi. Orientation Courses in this series are proposed to be organised shortly so as to cover the remaining States and Union Territories.

Follow-up action has been initiated by requesting the State Governments and Union Territories for whose key personnel orientation courses have already been organised, to ensure that the training courses for supervisors and instructors are organised with the assistance of the key personnel. Organisation of Refresher Courses for key personnel, Regional Workshops and the Second National Workshop on Function-

al Literacy and preparation of a Manual on Training and Orientation have also been planned.

## materials

With fourteen major languages in the country, the reading and teaching materials for Functional Literacy Project have necessarily to be produced in the regional languages. These materials were produced under the overall direction and guidance of the Directorate of Adult Education and are published every year by the respective State Governments in requisite number of copies for the projects in those states. Such materials include more than 75 books published as reading materials and 18 as teaching materials in 10 different major languages of the country. Functional Literacy materials are now available in the languages of all the States/Union Territories in which the FFLP is in operation.

The Directorate of Adult Education, in its role of providing leadership and direction in this field by producing model books, had directly produced these materials in Hindi and Punjabi languages. As regards the other regional languages the Directorate had provided guidance to the regional teams, consisting each of a writer, a local agricultural expert and an adult educator. The production of these materials was organised through a writers' workshop. The manuscripts produced in the Workshop were also scrutinised and approved for the Project by the Directorate before their final publication by the respective State Governments. At present, this Directorate is directly responsible for publishing and supplying

the Hindi materials. Besides these books, some of the Hindi Speaking States are planning to have the materials of their own emphasising the local conditions prevailing in those States. The Punjabi materials produced by the Directorate were passed on to the authorities of the State of Punjab for their revision and reprinting according to their local needs. The Directorate has so far published 83,000 copies of the *Kisan Saksharata Yojana* Supplementary Readers in Hindi and has supplied them to all the Hindi speaking districts where the FFLP is in operation.

The *Kisan Saksharata Yojana Pahali Pustak* prepared for this purpose is to be used right from the start of the classes and is to be covered in about 4 to 5 months. After the completion of the First Book, the set of five supplementary readers on high Yielding Varieties of Crops is to be used for the remaining period of the functional literacy course under a supervised reading programme. These materials are revised from time to time on the basis of the comments and suggestions given by the teachers working in the field and observations made by the staff of the Directorate. Thus, the *Kisan Saksharata Yojana Pahali Pustak* in Hindi, prepared by the Directorate in 1968 has been revised four times. In this revision, an attempt is made to minimise the difficulties felt by the teachers in handling these teaching materials and also those felt by adults in using them. A Teachers Guide in Hindi has also been prepared. It is encouraging to note that the need for the suitable teaching and reading materials and sound follow-up programme is being

felt by many States and they are also taking action in this direction.

Besides, the Directorate of Adult Education is also preparing the problem-oriented curricula and instructional materials for functional literacy participants in a few selected areas. The programme for the preparation of such materials for the Jaipur area has already reached on advance stage and will be made available for use in about 3 to 4 months time for its field testing and evaluation before it is recommended for general use.

## evaluation

The Evaluation of Functional Literacy was to be an integral and indispensable part of the Joint Project from the very beginning. It was conceived as an important tool, enabling to test the accuracy in relation to the objectives set and, in accordance with the experience gained, to adjust the programme for making it more effective. Evaluation was to be an on-going process, planned and executed along with the project itself. From the outset there were the two major concerns of evaluation namely, to study the impact of effectiveness of the project and to feed back important information for decision making. The ultimate purpose of evaluation was not so much to describe results as rather to derive guidelines for future planning, by presenting, as fully as possible, the alternatives in problem-solving.

With this background, a Pilot Evaluation Study was taken up in Lucknow District towards the end of 1969 with the following

objectives : to find out the attainment and use of literacy skills; to assess the impact on changes in agricultural production; and to assess the effectiveness of the teaching learning situation.

The study brought to light evidence of the success of functional literacy in as much as it developed literacy skills of varying degrees of utility, disseminated knowledge of improved agricultural practices, raised the adoption rate of these practices and effected certain attitudinal changes. However, it was an ex post facto study which was conducted after the programme was over. It was, therefore, felt that a study may be taken up following an experimental design at three points in time which will indicate the impact of the programme as well as will provide feed back for programme improvement.

Such a study was started in the year 1971 in Jaipur district in which the impact of all the three components (Farmers' Training, Farm Broadcasting and Functional Literacy) was intended to be measured jointly as well as separately at three points in time, namely : before the programme was started; during the operation of the programme and after the programme had finished. The data collection for the first phase of the study was completed in February, 1972 for all the three components taken together as well as separately.

A comprehensive study of the organisational, administrative and communication aspects of FFLP and its socio-economic impact on the farmers has been planned for taking up in Udaipur district. The draft design and

research instruments for the study have been prepared for being tested in the field before the investigation is taken up. This study will identify and describe the organisational structure of the machinery responsible for implementation of the programme and will also identify factors which impede or promote programme implementation. Among other objectives, the study will determine the extent to which the concept, messages and decisions with regards to functional literacy are understood and communicated both horizontally and vertically. It will also assess the socio-economic impact of the programme with respect of changes in agricultural production level of social participation, income, and standard of living. Preparations for starting the field work have been finalised and the field work will begin shortly.

Other matters connected with evaluation which deserve a passing reference are as follows :

- (i) Printing of the Technical Report of the Pilot Evaluation Study of Functional Literacy in Lucknow District.
- (ii) An evaluation Report on operational aspects of Farmers' Training and Functional Literacy Project in India.
- (iii) Socio-economic impact of Functional Literacy Programme (report of quick assessment study in three districts in India--Kolhapur (Maharashtra), Bangalore (Mysore) and Agra (U.P.)).
- (iv) A paper in Literacy and Development with special

reference to agricultural development in India.

Recently, the Directorate of Adult Education has constituted an Advisory Committee on Evaluation of Functional Literacy which will provide technical support and advice to the staff entrusted with the Project in carrying out various evaluation proposals in the coming years.

### **feed back and field contact**

A system of feed back has also been contemplated. Based on the Evaluation studies and field observation by Directorate staff a number of communications have been issued from time to time to the State Governments and the District Project authorities stressing the need for streamlining the administrative and financial procedures and initiating necessary steps for the appointment of full-time supervisors, full-time Project Officers, setting up of Coordination Committees, Organisation of Orientation and Training Programmes for different categories of personnel conducting base-line surveys before initiating the Project, and Production and Distribution of Instructional and follow-up materials. Discussions also take place with the functionaries dealing with the Project at different levels where various issues of mutual interest are sorted out. A plan of field visits by the officers in the Ministry of Education and the Directorate of Adult Education on regular basis to the different Districts has been chalked out and it has further been emphasised that joint tours of officers from the concerned Ministries may be undertaken with a view to strengthening the

much needed integration, particularly at the field level.

In addition to the FTL News issued by the Ministry of Agriculture, a quarterly Adult Education Newsletter is being brought out by the Directorate of Adult Education. This newsletter is a vehicle for disseminating new ideas and achievements in the fields of adult non-formal and continuing education. For the benefit of the workers in the field, a selected list of bibliographical references on Functional Literacy in India consisting of 100 entries has been brought out by the Documentation Unit of the Directorate of Adult Education.

At the instance of the Ministry of Education & Social Welfare, the Films Division, Government of India, produced a film entitled Farmers' Functional Literacy (Kisan Saksharata Yojana). This is a black and white film of 30 minutes duration and depicts the contents and methods followed in the scheme. The film, which is primarily motivational in character, conveys the general idea about the FFLP. This film is soon being dubbed in different regional languages of the country and will be made available in sufficient number of prints in 16 mm for exhibition through the Field Publicity Units of the Ministry of Information & Broadcasting.

### **the reporting system**

One of the major deficiencies of the FFLP has been the inadequacy of information on different aspects of the Programme. Some forms for Progress Reporting being used earlier, were not being received back from the districts concerned. In order to collect

the statistical and other relevant information, therefore, a simplified form for the Quarterly Progress Reports was prepared early last year and sent to all the field agencies. A consolidated progress report on the working of the Projects for the entire country is compiled by the Directorate of Adult Education on the basis of the Quarterly Progress Reports. Copies of these reports are sent to the concerned officers in the Central Ministries, State Governments and District Inspectors of Schools. It is hoped that the reporting system will improve further, and we shall be on a more sound and firm footing in respect of information on the progress of the FFLP in the country.

### **undp (sf) support**

The UNDP (SF) support to the functional literacy programme during its first phase ending June 1972 included (i) one printing press (ii) six book mobiles, (iii) 4-man months of experts on evaluation and materials preparation and (iv) 16-man months of fellowships. The fellowships have been utilized by deputing two teams abroad—one to Iran and the other to Tanzania and Ethiopia. These Inter-Project study visits have proved useful in sharing each other's experience of the working of the Project under different socio-economic situations. The expert on materials preparation, Mr. C. Bonanni, joined in March 1971 and left in December, 1972. The experts on evaluation Mr. Marion T. Hedegaard and Dr. J.A. Ziolkowski joined the Project in July, 1970 and March 1972 and left in May, 1971 and March, 1973 respectively. Work done

by these experts has been valuable and follow-up measures are being taken on the lines suggested by them.

### **deficiencies**

Two major deficiencies in the field of functional literacy are, more or less, generalized all over the country. (1) In spite of several attempts to clarify the concept of functional literacy, the functional literacy activities still resemble the old-fashioned literacy drives, without linking literacy with promotion of agricultural knowledge and skills. In other words, there is still a lack of understanding of what functional literacy really means, that it is not merely a literacy programme aimed at acquiring a rudimentary knowledge of the three Rs' but an educational effort closely linked with the development process. (2) There is a lack of integration between the three components of the Programme, viz., agriculture, education and broadcasting. Although, the whole programme is a tripartite one, the facility of Farm and Home unit broadcasts of the A.I.R. are not yet available in all the districts. It is evident that without integrating all these parts, without a deeper involvement of agriculture and of extension workers, the literacy cannot be functional.

The Farmers' Functional Literacy Programme will continue during the Fifth Five Year Plan not only in the High Yielding Varieties Programme areas, but also to support other programmes such as dry farming and development of small and marginal farmers. The FFLP would be extended to 200 districts by the end of the Fifth Plan.

# farmers functional literacy programme— organisation and structure

H. R. Gugnani

The Farmers Training and Functional Literacy Project in India has three components; Farmers Training; Functional Literacy; and Farm Broadcasting. It is a central scheme fully financed by the Centre but implemented through the State Governments. The implementation of each of these three components of the programme is the direct responsibility of the concerned Ministries, i.e. the Ministry of Agriculture for farmers training, the Ministry of Information and Broadcasting for farm broadcasting.

## vertical coordination

An Inter-Ministerial Coordination Committee, at the National level, consisting of the representatives of participating Ministries and other technical agencies coordinates the work of the three Ministries; reviews periodically the progress of the joint project in terms of its overall objectives and gives guide-lines for future course of action.

Coordination at the top level

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is not enough. In the federal set-up of India, both agriculture and education (though not broadcasting) are state subjects and hence both the farmers training and functional literacy programmes are being implemented by the State Governments, even though the funds for these programmes are being provided by the Central Government. Accordingly the co-ordination amongst the State Agriculture Department, the State Education Department and State level officers of the Ministry of Information and Broadcasting is no less important than the coordination at the Central level and this is achieved through the Inter-Department Coordination Committees set up at the State level in the States implementing the project. Similar coordination links in the districts covered under the project and down to the block and village levels where the farmers training centres and functional literacy classes are located have been established by the formation of district level, block level and in some cases even village level coordination committees. This vertical coordination is reflected in the appended Chart.

## horizontal coordination

Apart from vertical coordination, the programme also envisages horizontal coordination of the functional literacy component with farmers training and farm broadcasting components at the working level i.e. among the functionaries of all the concerned components. Several linkages and joint working points have been identified and established for the functionaries of these departments such as the following:—

- the concerned technical officers of the Agriculture Department should be closely associated in the training programmes for project personnel;
- the officers of the Agriculture Department should keep the supervisors and teachers in-charge of functional literacy programme posted with the latest information about the National Demonstration scheme and such other programmes. The functional literacy personnel should also avail themselves of the opportunities offered under these programmes;
- the extension literature production by the Agriculture Department should be done in consultation with the personnel in the field of adult education and functional literacy in order to suit the literacy levels of the neo-literate adult farmers;
- the officers in charge of adult education and functional literacy should associate their counter-parts in the Agriculture and Information departments in the evaluation of the functional literacy programme;

— in preparation of the teaching and reading materials related to the functional literacy programme, the officer in charge of the Farmers training and farm broadcasting should be closely associated;

— All India Radio should be actively involved in programming timely announcements about the location and running of functional literacy centres in the districts as also the enrolment drives launched by the Education Department. For this purpose the officer in charge of functional literacy programme at the district level should keep in constant touch with the Farm Radio Officer of the Farm and Home Unit of the concerned Radio Station.

— the constant contact with the concerned Farm and Home Unit should also help the officer in charge of functional literacy programme to plan the timing of the special programmes for adult learners so that these are beamed at the commencement of the class and are thus used by the teachers for initiating discussions in the class. The close contact between the concerned officers of the programmes should facilitate the timely broadcasts of the information sought by farmers on the various problems referred to by the Farm Radio Officers.

The above list is only suggestive; officers at the State and district level are expected to identify many more points of such linkages and establish them effectively.

## organisation and administration

Started initially in only three districts, the functional literacy programme has been progressively expanded to 107 districts at present. These districts are spread all over the country in different States, varying from one to 12 districts in each State. For programme operation in these districts, the Central Ministry of Education provides funds to the State Governments on the basis of about Rs. one thousand per class per year. The Directorate of Adult Education, the Technical Wing of the Ministry, provides technical and professional support to the programme in the form of (i) materials, media and methods; (ii) training and orientation programmes; (iii) evaluation work; etc.

*At the State Level*, the State Education Department\* of the State Government implements the programme in all the functional literacy districts under its jurisdiction, through the existing district-level administration machinery for education at its disposal. In one or two States, the State Education Departments have entrusted the implementation of the programme to voluntary organisation. A few projects are also being directly implemented through Agricultural Universities. Thus, apart from the Central cash grants, the State Governments also bring in their own existing infrastructures towards the operation of the

\*State Development Department in Kerala and Department of Social Welfare & Panchayati Raj in Madhya Pradesh.

programme. The role of the State Education Departments is :

— to identify a State-level-officer in charge of the programme in the State as a whole ;

— to ensure overall supervision, control and coordination of the programme in all the districts covered under the programme including the timely release of funds to the District Education Officer/Functional Literacy Project Officer in the State ;

— to participate in the inter-departmental coordination committee meetings and to take follow-up action on the recommendations ;

— to prepare progress reports of the programmes in the State as a whole, from time to time and send the same to the Central Ministry of Education ;

— to arrange for the production of suitable reading and teaching materials in the regional language and to ensure their distribution to the classes in all the functional literacy districts in the State ;

— to collaborate with the Central Ministry of Education and the Directorate of Adult Education in all administrative and technical matters relating to the implementation of the programme.

*At the district level*, the District Education Officer is responsible for the actual implementation of the programme in his district. He is assisted by a whole-time Functional Literacy Project Officer and six part-time supervisors (or two whole-time supervisors). The

selection of villages for the location of classes is done on the basis of an initial survey. After the selection of sites for location classes, problem survey of the selected areas is conducted to determine the instructional requirements of the learners.

The accommodation for holding classes is expected to be made available free of charge by the village community or by the State Education Department and this may be a school building, community house or any other local institution or even a private house donated by the owner. For each functional literacy class, a suitable teacher, generally belonging to the same area, is engaged on a part-time basis on payment of Rs. 40 per month. The project staff, at the district level, ensures the supply of necessary equipment for the smooth running of the classes, e.g. petromax, lamps, kerosene oil, primers, follow-up materials, slates and note books; instructor's kit, etc. The classes are held for about 2 hours every day, generally, in the late evening for men and in the afternoon for women.

For sixty functional literacy classes in each district there are either six part-time supervisors (i.e. one supervisor for ten classes) or two full-time supervisors in lieu of six part-time supervisors. The part-time supervisors are paid honorarium at the rate of Rs. 50 per month. The duration of the functional literacy course is about nine months and the new batches of learners are enrolled in the classes every year.

### implementation

The district is the administra-

tive and programme unit for the purpose of implementation of the scheme. Therefore the success of the scheme largely depends on the selection of the districts. *The criteria for selection of districts* is following :

- It should be High Yielding Varieties programme district covered under the Farmers' Training Programme of the Ministry of Food and Agriculture.
- It should be within the reception range of a radio station.
- It should have a need for functional literacy.
- It should be in close proximity to an Agricultural College, a Research Station or an Agricultural University.
- There should be an Extension Training Centre.

Keeping in view the above mentioned criteria, and the importance attached to the selection of the districts for the success of the scheme, the preliminary selection is done through joint consultation among the participating Central Ministers and with the advice of the concerned technical/professional institutions and other knowledgeable persons. The districts thus selected are then suggested to the concerned State Governments for their consideration and approval.

*Establishment of Functional Literacy Centres* : In each of the districts selected for the implementation of the functional literacy programme, about 60 centres for running 60 functional literacy classes, with an approximate enrolment of 1,800 adult farmers (i.e. an average enrolment of 30 adults per class) are

started in the selected villages in suitable blocks or areas of the District. The selection of the Blocks and villages is at the discretion of the State Government who are expected to do this keeping in view the finding of initial surveys of the areas. However, it is not necessary to restrict the number of Centres to 60 only. This number could be increased within the ceiling of the Central grant to the extent possible and with additional resources from the State Government and local administration or public cooperation.

*Initial Surveys* : After the selection of the area for the introduction of the programme, a village survey schedule is to be completed for each village with a view to selecting the communities for inclusion in the functional literacy programme, identifying instructors, locating classes, planning the supply of equipment etc. A proforma for this purpose has been designed.

The initial survey is done by functional literacy instructors, school teachers and such other workers as may be available at village level. In case of large villages, the area is generally broken up into Mohallas, Thanas, Panas etc. In some cases it is necessary for the persons collecting the data to make a few house visits and record the information on the spot.

Every instructor or every worker collecting the data is supplied with a copy of instructions written in clear terms as well as a copy of the proforma. In view of the simplicity of the proforma it is not necessary to train the workers in this regard.

*Location and enrolment :* On the basis of the findings of the initial survey, the location of the functional literacy centres is decided. The village community or concerned Department of the State Government provide the necessary accommodation for the functional literacy classes. As this is a scheme for the benefit of the village community, due publicity is given before actually launching the scheme and this occasion is utilized for an enrolment drive for the functional literacy classes. The publicity-cum-enrolment drives are organised under the overall charge of the District Education Officer and the Functional Literacy Project Officer and the Supervisory and Teaching Staff of functional literacy classes, with the cooperation of conveners of Charcha Mandals, Panchayat Samities, Village Level Workers and other local institutions. Such drives are launched before starting of fresh batches of the classes every year. The support of the concerned station of All India Radio is taken for publicity work and enrolment drive.

*Teachers:* For each functional literacy class, a suitable instructor is engaged. The teachers may be drawn from the following categories in order of priority:

Teachers who are also farmers.

Educated farmers.

School teachers living in the same village.

Teachers having agricultural qualification.

School teachers having agricultural background.

Students of agricultural schools and other institutions.

These teachers are part-time

and are paid an honorarium of Rs. 40-50 per month for about two hours of instructional work each day.

Apart from their usual teaching assignment, the teachers are responsible for maintenance of proper record of their respective classes (e.g. attendance registers, names and residential addresses of the farmers enrolled/passed out of the functional literacy classes, results of the tests administered to learners etc.) and such other records as are necessary for the evaluation of the scheme, and for proper reporting of its progress.

*Supervisors:* There are six part-time supervisors in the ratio of 1 for every 10 classes. The ratio of 1 : 10 is only suggestive and may change in accordance with the local conditions. The supervisors are responsible to the Functional Literacy Project Officer and through him to the District Education Officer. The part-time supervisors are paid a monthly honorarium of Rs. 50.

The role of supervisors is considered as very crucial to the success of the programme. He is not merely to go round and inspect the classes, but should be able to give guidance and on-the-spot advice to the instructors in regard to materials, methods and agricultural information on latest practices, etc. In view of his role, therefore, the supervisors are fully exposed to agricultural practices and have proper orientation and training course with a thorough agricultural bias. He should preferably be a person with agricultural qualifications and background.

*Functional Literacy Project Officer and his role:* The whole-time Project Officer is the key person in the programme, at the district level, working under the overall control of District Education Officer or District Social Education Officer of the district. He ensures establishment, supervision and running of functional literacy centres; organises training programmes for literacy teachers; arranges distribution of reading materials and sends periodical progress reports. He is also expected to issue periodical newsletters which may serve as a forum of exchange of experiences and information within the district. He establishes working arrangements with the other two components of the Project, viz. farmers' training and farm radio broadcasting and enlists the cooperation of not only of the concerned officers of the agriculture and information departments at the district level, but also other appropriate institutions related to horticulture agro-industries, as well as voluntary organisations and workers. He also enlists public participation and the support of the local people as well as organisations with a view to involving the community in the Programme. He is responsible for preparing and furnishing periodical reports on the progress of the Functional Literacy Programme both in terms of quantitative and qualitative achievements.

*District Level Officer :* At the district level, the District Education Officer or District Social Education Officer is in overall charge of the programme. He lends administrative support to the whole-time Functional Lite-

racy Project Officer in the day-to-day implementation of the Programme and other allied fields, such as libraries, reading materials, training of adult education personnel, etc.

*State Level Officer* : At the State level an officer of an appropriate status is assigned the work of this scheme. He is responsible for the overall supervision, control coordination of the programme in all the districts covered under the

Functional Literacy Project in the State.

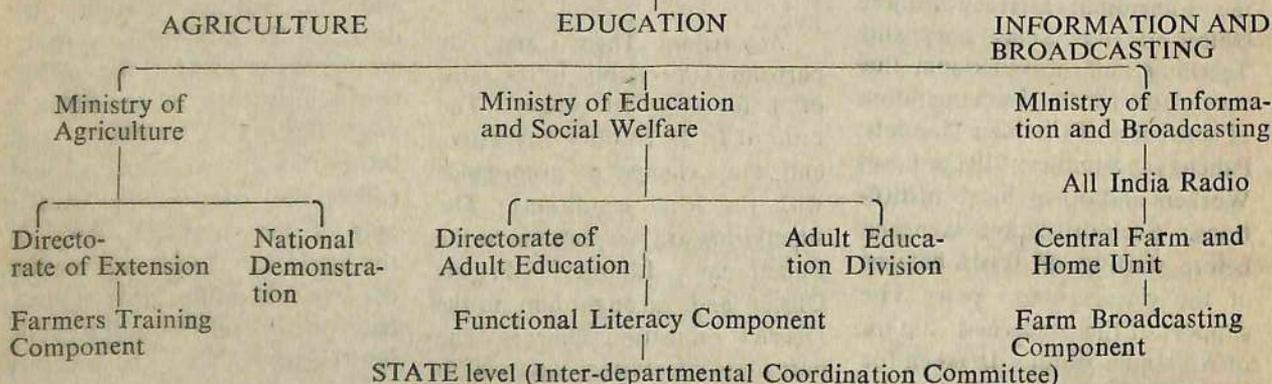
### finance

The programme is fully financed by the Central Government through release of grants to the State Governments who are responsible for implementation of the programme in their respective States. An annual grant of Rs. 66,600/- is provided to each Functional Literacy district to cover the cost on (a) the salary

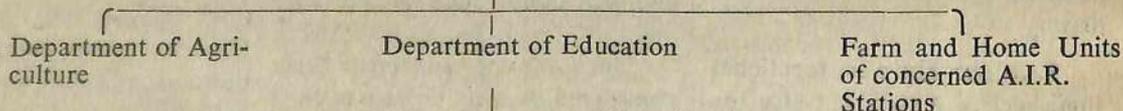
of full-time Functional Literacy Project Officer; (b) honorarium for part-time teachers/supervisors; (c) training of teachers/supervisors; and (d) class-room equipment. The Central grant is released to the State Government who in turn place the requisite funds at the disposal of the district level officers for meeting the day-to-day expenditure. The above-mentioned district grant i.e. Rs. 66,600/- is meant to cover the cost on 60 Functional Literacy Classes.

## Farmers Training and Functional Literacy Project

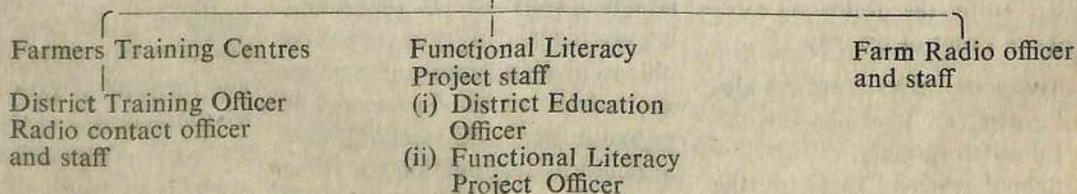
### NATIONAL level (Inter-Ministerial Coordination Committee)



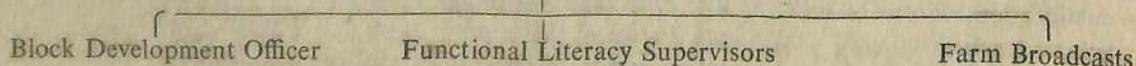
### STATE level (Inter-departmental Coordination Committee)



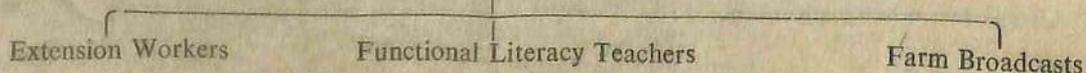
### DISTRICT level (Inter-departmental Coordination Committee)



### BLOCK level (Block level Committees)



### VILLAGE level (Village level Committees)



# raising literacy standards— what standards—and for whom

Malcolm S. Adiseshiah

## for whom

UNESCO's recent publication, *Literacy 1969-71*, tells us that in 1970 out of 2,287 million adults, 1,504 millions were literates and 783 million were illiterates. (1) The first group to whom literacy facilities should be made available is this group of 783 millions who are the farmers, the agricultural labourers, the rural women and youth, the industrial workers and artisans who sustain the social fabric of the third world. The UNESCO publication also estimates that by the end of the Second Development Decade, 1980, out of 2823 million adults, 820 millions would be illiterates. (2) Through the decades, the percentage of illiterates keeps dropping from 44.3 per cent in 1950 to 39.3 per cent in 1960 to

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(1) *Literacy 1969-71*—UNESCO Paris 1972 p 17.

(2) *Ibid* p 19.

34.2 per cent in 1970 and 29 per cent in 1980. But because of the continuing increase of population and the faster rate at which it increases in the third world, the total number of adult illiterates keeps increasing. It is to redress this scandal that all literacy programmes should be directed. We are scandalised by the millions who are dying of physical starvation in the Sahelian drought. We should be equally conscience stricken about the even greater number of millions who are dying of intellectual starvation.

A second group to whom literacy programmes should be directed is the dropouts and pushouts from the formal school system. UNESCO defines literacy as the reading and writing and arithmetic skill acquired during the first four years or primary schooling. (3) It also reports that 60 per cent of the

(3) *Literacy 1967-1969*—UNESCO Paris 1970 p 15.

434,806,000 (4) school age (5 to 9) children drop out or are pushed out before Standard 5 of the school. (5) They drop out because of the massive poverty in which the majority of people live in the third world. (It is more than a tragic coincidence that according to the World Bank Study (6), 60 per cent of the people in Asia, Africa and Latin America live below the poverty line of their countries and 60 per cent of the children drop out or are pushed out before grade 5). Dropping out of school, a boy works with his father in the field, farm or factory to bring in a little more food or a girl stays at home to cook the family meal and/or look after the baby in order that the mother may go out and earn a little to supplement the husband's meagre wage. The boy or girl is pushed out because the content of the literacy that they are taught being totally irrelevant to their life and world drives them out of the school's ambit. Further the rules of the school game—admission tests, home work, terminal exams as well as the hours of schooling against the illiterate home which most first generation school entrants live in ensures that they are pushed out of the school. This is the second group—the dropouts and pushouts—who constitute in the third world the majority of primary school age children compared to those in schools for whom literacy programmes should be urgently developed.

(4) *Statistical Year Book*—UNESCO 1972 p 27.

(5) *A Statistical Study of Wastage at School*, UNESCO—IBE 1972 pp 78-81.

(6) R. Mc. Namara: *Address to the Board of Governors' World Bank*, Nairobi pp 10-17

A third group for whom literacy programmes need to be devised is the neo-literate group. This is one of the main, and for many like me perhaps the only, advantage of the formal school system. After imparting the basis of literacy skills in the first four grades—the other six or seven grades are aimed at sustaining, improving and enhancing the individual's literacy equipment and standard. In the UNESCO literacy estimates referred to earlier, what is of significance in this connection is that between 1950 and 1970, the numbers of both literate and illiterate adults have increased by 600 millions and 83 million respectively.<sup>(7)</sup> These 600 million adults who have become literate, who for short hand may be called neo-literates, face a very real danger of reverting back into illiteracy unless there are programmes to keep them literate, to raise their literacy standards and to keep them moving from one cultural level to another. Here the quantitative explosion of the printed word, the high cost of all forms of publications and the growing professionalisation of much that is written and published acts as a decelerator as far as promoting reading habits and raising literacy standards for their group are concerned.

Finally the clientele to whom raising literacy standards should be insistingly addressed is the educated elite in every country including the industrially advanced countries. The UNESCO estimate is that 65.8 per cent of the world's adult population is literate but within this literate

group there is growing and frightening illiteracy of various kinds. There is moral illiteracy from which the top 10 per cent of the educated elite suffer which makes them imperviously inviscibly ignorant about the growing gap between the rich and the poor in their countries. While on the one hand they, the rich, grow richer, the poor majority grow poorer. This inequality which has become a form of inequity does not only rouse their conscience, but makes them plan and operate a social system which builds individual and social injustice into it. And then there is the adult literate majority which suffers from social illiteracy, not knowing what it means to be a responsible member of society which is in process of change and mutation; where adherence to status quo involves the use of violence to resist change and which calls forth counter violence; and where the selfish pursuit of personal and corporate profit leads to the pollutions, and environmental destruction and imbalances which are poisoning the city, countryside and the planet. There is also the growing scientific illiteracy of the educated adults which makes for the sway of emotion and the downgrading of reason and wherein the control over life which science and its applications in technology makes possible is unknown and, where known, is misused. The illiteracy of this educated group is thus wide ranging and tragic, wide ranging because they deal with all sections of living—political, social, economic, aesthetic, cultural, scientific and educational—and tragic because the powers of decision and action in every society are concentrated in this group.

## what standards

In defining the standards of literacy for these four groups of adults, I shall suggest three principles from which the appropriate pedagogic methodologies and operational and programmatic instrumentalities may be worked out.

The first principle for raising literacy standards is the principle of life long continuing education. The literacy learning principle involved here has a time reference and a space reference. The time reference is that of literacy learning in childhood, youth, adolescence, adulthood and old age. One of the reasons why literacy standards have been kept low is that learning has been limited in time either to 7 or 12 or 15 years of one's life for a fortunate few, or to a few months of so called literacy classes for the vast majority who missed the first path. This time limitation of learning involves the negative consequences of learning by rote, memorising, copying, cribbing, repeating and learning enough to get by for the immediate purpose. On the other hand if learning is continuous and life long there will be learning being acquired and programmed to different stages of life. Such learning has also a space reference. Literacy is not taught or learnt only in a school or an adult literacy centre. It is learnt anywhere where a learning experience is to be had—in the home, the school, the college, the hospital, the club, the co-operative, the trade union, the cinema, the newspaper, the library, the church, the mosque or the temple. In this widely diffused learning system, literacy is acquired as life is lived in

(7) Literacy 1969-71 p 18 (8) Ibid p 17.

varied and varying situations, and reflects its qualitative standards.

A second principle is the package principle under which literacy is learnt as part of skills package. The package may be a bunch of skills on how to apply NPK to cereal production, or how to run and service a pump-set, or make simple nutritious food for infants or lactating mothers, or how to run a co-operative or a village panchayat, or how to organise the urban poor or landless labourers to fight for their rights to minimum living conditions, on how to vote, how to visit a museum and so on. Under this principle there will be no literacy primers as such, no literacy classes per se. The literacy skill will be learnt as a part of learning a group of skills. And so what is needed is to introduce programmed material into all forms of skills acquiring that is going on at all times, in all places and for different segments of life and people. Such literacy learning then ceases to be an abstract chore; it is functional to some part of life which is continuously changing, growing and maturing. That is how literacy learning standards can be continuously upgraded, improved and be made real. It is the only way in which the literacy skill can reach out to the school dropout or pushout, because it is part of what he or she is really doing in his or her young life. It also is the only way in which all illiterate adults can be given and acquire the needed skill in an accelerated and improved manner.

A third principle is that of disaggregation. The problem with traditional schooling as with literacy classes, text books and

primers is that they are at such a level of overall generality and aggregation that there is no desire to learn from them and what is learnt fits no particular situation confronting the learner. There is here a real problem. All learning involves a degree of abstraction from real life, and the higher the learning, the higher the level of abstraction. But it is not the degree of obstruction that is at issue in literacy learning and in improved standards of literacy learning. It is the relevance of the abstraction and the whole learning process and learning content. This can be met only by disaggregating literacy learning to every specific situation and it is only in making literacy learning conform to the infinite specificity which the learner faces in life that the standard of literacy can be continuously and constantly raised. Disaggregated literacy learning is the pathway to rising literacy standards.

### **some programme suggestions**

In light of the comments on the magnitude of the problem and some principles for dealing with, a few programmatic suggestions are made for raising the general standards of literacy.

First the target group of illiterates, semi-literates, neo-literates or technical literates but social and moral illiterates must be defined as precisely as possible. This is the starting point.

Second an evaluation of existing literacy materials and literacy programmes for that target group must be made in order to identify the instances where standards were rising and the causes for them and those where literacy

attainments were stagnant, leading to reversion to illiteracy and the causes for them.

Third on the basis of such evaluation, there should be graded programmed reading materials and books developed for each target group. For some target groups research will be needed on the use of wall pictures, cut-out pictures, flash cards and flannel graphs, maps and models and radio and T.V. including Satellite instruction so that they make a coherent and graded programme of learning for them.

Fourth each target's literacy programme must have attached to it a library or at least a graded book collection, with a reading room where the members of the group can continuously learn and learn how and where to learn.

Fifth the main thrust in literacy teaching, training, research publication and planning should be grounded in the varied and various ways of literacy in which the individual child, adolescent or adult is involved or is preparing to be involved in real life. Literacy is the cross roads of the pedagogue and the practitioner.

Finally for the technically illiterate, there is needed a constant flow of books, films, journals and all resources of mass media on such themes as social justice, responsible citizenship, the environment, the role of sports and physical education, the aesthetic value of arts, science and technology as expressed in daily industrial and agricultural life, air and space travel, accompanied by a statutory regulation of individual and social action and behaviour.

# farmers' training and education

N. Perumal

In the agricultural annals of India a bold techno-administrative and political decision emerged in 1967 that led to the import by India of 18,000 tons of short duration wheat seeds from Mexico. These promising varieties coupled with entirely new set of farming practices brought into focus the need for a planned, systematic farmers training and education. Thus, Farmers Training for the first time reckoned as an essential input in agricultural production. Centrally sponsored programme was launched to make available this input in the selected 100 high-yielding varieties programme districts. It has secured the active participation and cooperation of the All India Radio to meet the needs of majority of illiterate farmers through the 46 Farm and Home Units, the support and participation of agricultural scientists through the National Demonstration scheme of the ICAR. The functional literacy programme of the Ministry of Education and Social Welfare, taken up in all the 100 Farmers Training Districts, is also an integrated part of this major effort. Thus, the farmers training and functional literacy project emerged as a joint effort of the Ministry of Education, Ministry of Information and

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## main features

The success of the present strategy of agricultural production depends, to a great extent, on our ability to involve a large number of farm families, big and small, in the intensive agricultural production effort and convey the latest technical know-how in agriculture in the quickest possible time to the farm families. The Centrally Sponsored Scheme of Farmers Training and Education launched in the year 1966-67 aimed at achieving this objective has been extended to cover 100 districts during the Fourth Plan period in a phased manner.

The following are the main features of the scheme:—

1. It is a joint effort of the Ministries of Agriculture, Information and Broadcasting, Education and Social Welfare and the Indian Council of Agricultural Research at the National Level with the participation of UNDP AND UNESCO.
2. The farm family namely—the farmer, the farm women and their grown up children engaged on the farm, is treated as a unit and dealt with in the matter of education and training.
3. The training is taken to the farmer and demonstrated on farmers' fields in their socio-economic environment to familiarise the proven innovations and to create higher credibility among the participants.
4. The training and education is a continuous process designed to provide indepth knowledge and understanding and to develop skill necessary for the efficient use of inputs such as seeds, fertilizers, pesticides, implements, land, water and sunlight in the context of rapidly changing technology and also mobilisation of local resources.
5. It provides ample opportunities for the identification growth and development of local leadership through the conveners of Charcha Mandal organised in 100 farmers training districts at the rate of 300 per district.
6. The scheme has an inbuilt coordination arrangement at the district, State and National levels to provide continuous guidance, direction and support by all concerned.
7. It operates in 21 small farmers and 18 marginal farmers project areas, 25 intensive cattle development projects, 2 DPAP districts and 27 fertilizer promotion districts.

The various components of the training show the versatility of the scheme to suit the requirements of the farmers in varying situations in which they are placed.

## non-institutional training

*National Demonstration* : The focal point of the farmers' education is demonstrations organised on farmers' fields. In each farmers' training district, there are normally 15 National Demonstrations to be conducted by the specialists seconded by the Indian Council of Agricultural Research or the State Government and cover all important crops in rotation.

*Secondary Demonstrations* : Since the National Demonstrations are too limited in scope and coverage to take care of the needs of the entire district, other scientific demonstrations conducted by the State Government, input suppliers and voluntary organisations also serve as venue for farmers' training in the district. Both in case of national and secondary demonstrations, farmers within walking and cycling distance participate in these demonstrations at the time of important crop operations. The date, time, venue and item of operations to be carried out and the specialists available for consultation on field problems are announced in advance through radio. The specialists are present at the time of the demonstrations and answer queries raised by the farmers witnessing the demonstrations.

*Peripatetic Training*: In order to link up organised demonstrations and other educational efforts in each district, there is a peripatetic team of trained and experienced field personnel supported by a specially designed and fully equipped audio-visual-cum-exhibition van for holding training camps on high yielding varieties of crops. The farmers

from local and neighbouring villages are invited to participate in these training camps. The team specially deals with the dissemination of information of High Yielding Varieties Programme through films, filmstrips, crop specimen, samples of inputs and other audio-visual media. It also provides required extension support to the National Demonstrations and other field demonstrations in the district. In the training camps organised for farm women, stress is laid on high-yielding varieties cereals, domestic storage of food-grains, balanced food and nutrition, home preservation of fruits and vegetables, etc.

*Farmers and Farm Women Discussion Groups* : Farmers or Farm Women Discussion Groups are organised in the villages to serve as a continuing medium for imparting the latest farm and home development information to their members and encourage the adoption of improved practices through group discussions and group decisions. The groups are closely linked with the demonstrations. They have also been provided with low cost transistorised radio sets at reduced rates and are supported by weekly special broadcasts. The listening groups at the village level thus establish a two-way communication channel between the farmers on the one hand and the specialists and the radio on the other.

*Conducted Tours of Farmers* : In the context of fast moving developments in agriculture where extensive areas are brought under high yielding varieties and Multiple Cropping Programmes and where farmers are evincing

keen interest to see the progressive farms and exchange views with fellow farmers on current agricultural programmes, the progressive farmers have been provided opportunities for visits to other progressive private farms and advanced agricultural institutions within or around the district. Such conducted tours are a built-in element of the farmers training programme.

## institutional training

*Specialised subject-matter training* : Rapid advances in modern agriculture have given a lead to certain area specialisation. Such specialised needs of farmers are met through specific subject-matter training courses conducted at the Agricultural Colleges/Universities, Research Stations, Farmers Training Centres, etc. where expertise and physical facilities are readily available. These courses generally are of 5-day duration based on the need of specific subject-matter area and local conditions. Since farm women have come to acquire their responsibilities, specially in relation to domestic storage of foodgrains, seed selection, methods of cooking high yielding varieties cereals, etc. they have been enthusiastically responding to the institutional training facilities.

*Training of conveners of charcha mandals* : Specialised 3-day training courses for conveners of farmers, farm women discussion groups (charcha mandals) have been introduced since 1970-71. The conveners in these courses are trained in the subject-matter area such as development of leadership qualities, role of leaders, acquiring techniques of

holding group meetings and group discussions etc.

## quality and content of the programme

The main objective in designing the programme content has been to improve the skills and efficiency of the farmer in carrying out his day-to-day farm operations in the cultivation of the high yielding varieties of crops. The broad outlines of the syllabi and other activities were worked out and sent to the State Governments and the Farmers Training Centres for adapting them to local needs. The evaluation team constituted by the Government of India made several suggestions regarding the programme-design. The UNDP Evaluation Mission made its own observations after an intensive field visit. The Group Dynamic Specialist of the UNDP has brought out two studies on the working of Charcha Mandals. The evaluation cell of the Directorate supported and guided by an Evaluation Expert of UNDP has brought out one experimental study report on Jaipur District (Rajasthan) and an ex-post facto study report on Tanjore District (Tamil Nadu). The remaining 3 ex-post facto study reports and an integrated report of all these will be completed by December 1974. This was also one of the important items for discussion in the National Conference held in 1970. Meetings held at the regional level and at the State Headquarters also periodically go into the details of field activities. In short, the quality and content of the programme is kept under constant review in order that it responds fully to the needs of changing technology.

## training

Being new effort involving

several agencies, it has been necessary to orient the functionaries at the various levels. Initially, orientation training of the trainers was organised by the Government of India in the Farmers Training District, Agra. Later, the effort was spread out. The training of the field functionaries is now being continued at the three Extension Education Institutes in the country; so far 21 training courses have been organised covering 331 staff members.

Special training in the handling of audio-visual equipment is organised regularly for the State level Information Officers; workshops at regional levels are also held particularly for the members of the peripatetic teams. 12 such courses have so far been organised in which 131 officers participated. A week's training for the Radio Contact Officers has also been organised by the Farm and Home Unit of the All India Radio. In addition, field visit by the staff of the Farmers Training Centres to some of the successful farmers training districts has enable fuller acquaintance with the various training methods and techniques adopted successfully in the implementation of the programme.

## coordination

Farmers Training and Functional Literacy is an integrated and coordinated project at all levels. Coordination Committees have been set up at the National, State and District levels. In certain Farmers Training Districts, such committees have also been set up at the block level. The Inter-Ministerial Coordination Committee at the National level generally meets once in a quarter and deals with important policy matters and decides broad approaches in programme execution. The Coordination Committee set up at the State and District levels provide overall guidance in implementation of the programme at the field level.

## achievements

It could be seen that the problem of farmers' education is being met through a variety of efforts. Being a new venture it has taken time on the part of the State Governments, Government of India and other participating agencies to gain experience and raise the level of the activities to its full swing. The achievements of the programme during the Fourth Five Year Plan may be listed as follows:—

(i) During the period under review 13,215 National Demonstrations have been organised and in each demonstration at least 250 farmers participated by seeing important crop operations and hearing the scientists;

(ii) 38,495 peripatetic production-cum-demonstrations camps were conducted in which 13,32,706 farmers and farm women participated and directly benefitted from the training camps;

(iii) 6,961 specialised training courses were organised involving 1,40,619 farmers and 67,880 farm women during this period;

(iv) 23,984 conveners of *charcha mandals* were trained in the organisation and servicing of Farmers Discussion Groups and in the mechanism of group dynamics;

(v) Through the conducted field visits 12,000 farmers had the opportunity of visiting and seeing the successful farms of progressive farmers, national demonstrations, Government farms, research stations, Central Institutes and Agricultural Universities, etc.

(vi) 110 Kisan Melas were organised and in each Kisan Mela at least 5,000 farmers and farm women participated;

(vii) In the 96 farmers training districts, 19,435 farmers discussion groups and 4,176 farm women discussion groups have

been formed and 3,71,128 farmers and 78,757 farm women have been regularly discussing their problems, listening to the broadcasts, writing questions and receiving answers and sending literature.

Thus, the farmers training and education has become *sin qua non* in the process of modernising Indian agriculture. This programme will continue to function in 100 existing districts as a Centrally Sponsored programme during the Fifth Plan and will bring in its fold additional 50 districts extending its benefits to a large number of willing farmers both small and big in an integrated manner.

### feed back

The progress in the field implementation of the project is constantly kept in view through a system of quarterly progress report received from each of the Farmers Training Centre. The progress report reflects not merely financial and physical achievements but also provides an insight into the type of problem being encountered in the field and how these are being attended to. The training effort in the district is supervised by regional and State officials. Senior officers of the Government of India and UNDP specialists also occasionally undertake field visits. Several suggestions of the UNDP Project Chief Adviser and Group Dynamic Specialist made during their visits to the Farmers Training Centres have already been considered and implemented. At the Central level, meetings of the State personnel incharge of the training programme are periodically held for exchange of ideas and experiences and iron out difficulties.

### farm broadcast

The Ministry of Information and Broadcasting has been working in close coordination with the Ministry of Agriculture in

providing educational and informational support in the Intensive Agricultural Districts and Intensive Agricultural Areas through the setting up of Farm and Home Units at All India Radio stations located in these areas. The main function of these units is to provide factual and technical information and utility announcements for the benefit of the farming community and extension personnel in these areas.

As a participating Ministry in the Farmers Training and Functional Literacy project, the Farm and Home units of All India Radio have been completely geared for providing intensive radio support to the project. Thirty-two Farm and Home Units established in consultation with the Ministries of Agriculture and Education and Social Welfare are regularly putting out Farm and Home programme bearing on Farmers Training and Functional Literacy efforts. Each of the stations puts out an half-an-hour hard-core programme in the evening. Twenty of them broadcast special morning programmes of short duration and nine stations broadcast afternoon programmes of 5 to 10 minutes mostly dealing with topical hints and information designed to assist farmers increase production. These broadcasts also include the home component designed to assist farm women improve their living standards.

The programmes are designed to provide variety in presentation such as talks and interviews, discussions and documentaries in addition to providing the vital information such as weather reports market reviews, etc.

The intensity of the radio programmes in supporting the Farmers Training and Functional Literacy Project can be assessed from the fact that during the period January to December, 1973, All India Radio broadcast a total of 3,172 programmes on Farmers Training, 826 on Func-

tional Literacy, 3,384 on the Home and 922 on National Demonstrations. Several stations also put out special programmes on Farmers Training simultaneously with the field programmes taken up by the Farmers Training Centres. The response to these programmes is reflected in the number of letters received from individual farmers during the same period of January to December, 1973, amounted to 89,431. Charcha Mandals sent 21,514 letters to the radio stations. In all, answers were provided to 1,27,936 questions raised by farmers. Quite encouraging coordination was developed between radio stations and farmers training and functional literacy centres and National Demonstrations staff.

To improve the quality of broadcasts, Workshops were organised involving the Farm and Home staff and personnel from the farmers training and Functional Literacy and National Demonstrations schemes.

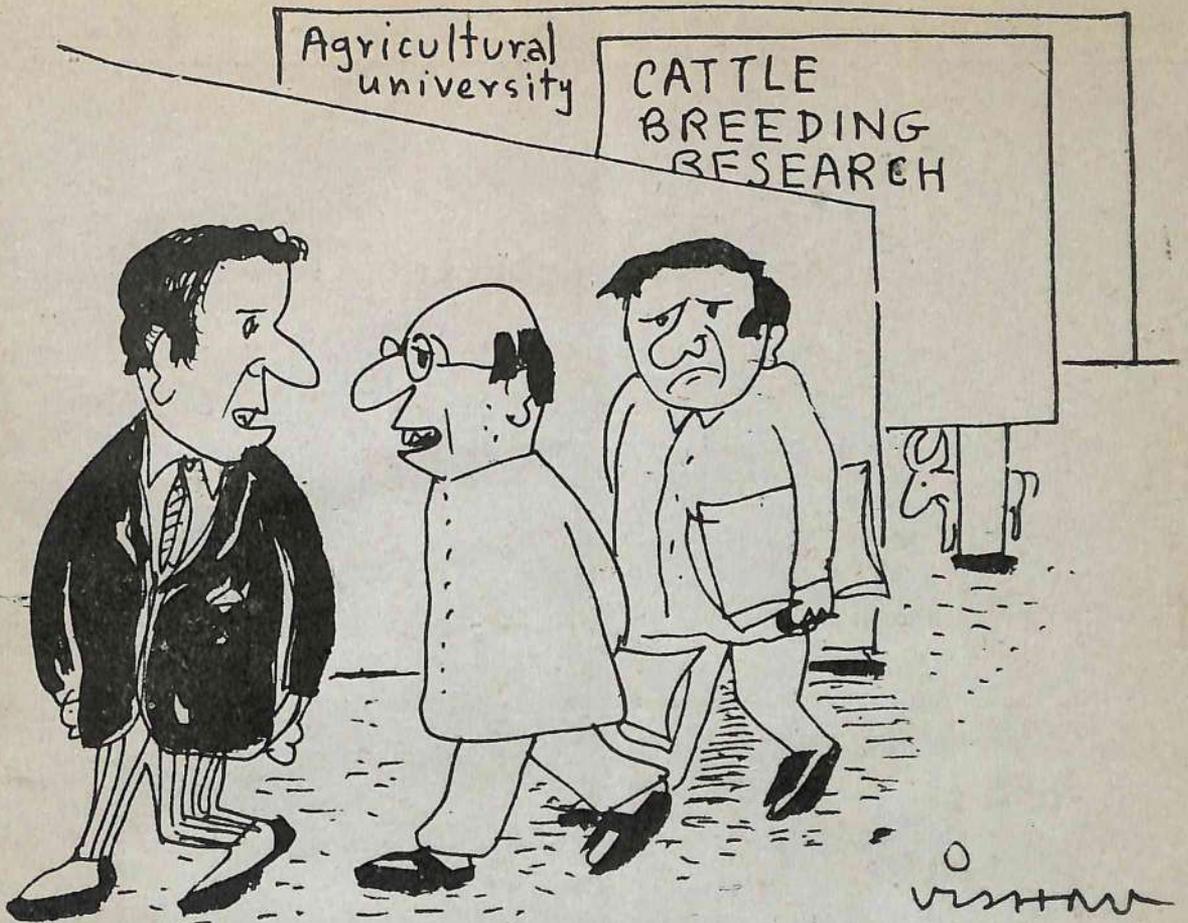
### fifth plan

During the fifth Plan the Farmers Training and Functional Literacy will continue to be located in the same district with closer cooperation between the agricultural functionaries and educational functionaries at the field level resulting in enrichment of reading material in this process. Even though the ICAR will be withdrawing the National Demonstration from some of the districts, in the remaining districts, they will play an increasing role touching upon the entire economic life of the farmers facilitating better participation in the Functional Literacy area. The AIR will have the Farm and Home component in all the stations in India which will ensure better information and communication net-work. The Satellite Television Instructional Equipment that will be taken up in 2,400 villages opens a new vista for an unlimited opportunity for adult education.

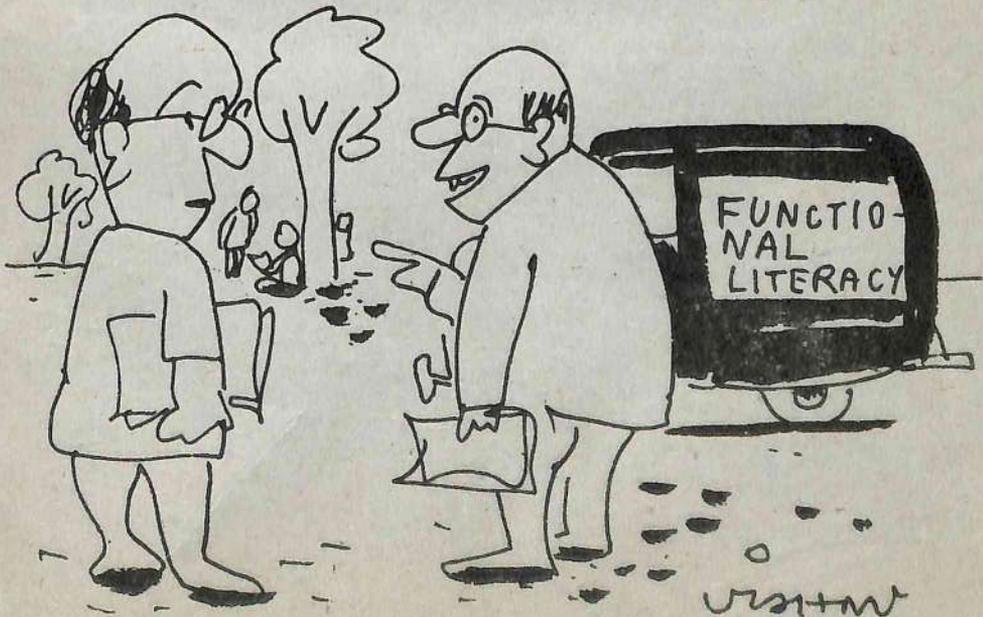
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PROGRESS OF FARMERS TRAINING PROGRAMME DURING 1969-70-1973-74

S. No	State	Specialised short courses for Farmers		Specialised short courses for Farm women		Specialised courses for conveyers of discussion Groups		Production-cum-demonstration training camps		Farmers Discussion Groups		Farm Women Discussion Groups	
		Courses	Participants	Courses	Participants	courses	Participants	Camps	Participants	Groups	Participants	Groups	Participants
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1.	Andhra Pradesh	44	11054	198	5480	158	1435	2375	61116	2201	44156	487	9326
2.	Assam	11	2222	12	271	17	132	726	24701	561	11441	134	2683
3.	Bihar	226	5416	59	1579	69	871	771	21076	996	19885	93	1887
4.	Gujarat	287	6091	77	2179	71	759	1706	60871	1269	18195	89	1218
5.	Haryana	202	5809	126	3346	79	1465	3878	125275	925	17264	321	4899
6.	Himachal Pradesh	47	1334	1	40	—	—	101	2325	199	3552	18	341
7.	Jammu & Kashmir	34	1159	—	—	15	358	115	3949	—	—	—	—
8.	Kerala	159	3910	105	2796	63	1220	1389	57825	1016	19200	359	6160
9.	Madhya Pradesh	195	5893	117	3067	69	1061	915	33067	1089	20120	294	5660
10.	Maharashtra	496	11288	105	3378	145	1669	2568	98842	1897	35972	127	1918
11.	Meghalaya	18	282	N.A.	163	9	225	34	850	13	400	N.A.	278
12.	Karnataka	255	6062	188	5575	107	1491	3082	109706	1569	33155	481	10439
13.	Orissa	475	17382	279	7240	61	1009	1056	30224	588	12127	105	2173
14.	Punjab	457	19279	171	7348	78	2005	3188	86785	1616	29993	405	5838
15.	Rajasthan	160	4807	139	4654	51	1089	3021	80524	855	12599	191	3659
16.	Tamil Nadu	305	8167	251	6725	139	2572	4034	108793	1380	28652	655	13591
17.	Uttar Pradesh	434	13709	321	11051	302	3777	6550	319929	1649	37019	204	4350
18.	West Bengal	201	14209	22	694	27	665	1626	72364	1034	15907	57	921
19.	Delhi	50	1362	45	1248	12	138	591	14404	210	4350	74	1488
20.	Goa	32	526	14	296	13	117	89	5766	161	3161	30	588
21.	Nagaland	58	2371	—	—	30	601	55	2180	32	1123	—	—
22.	Arunachal-Pradesh	—	—	—	—	—	—	43	380	12	200	—	—
23.	Pondicherry	50	1247	30	750	19	425	582	11754	157	3260	—	1340
24.	Tripura	—	—	—	—	—	—	—	—	—	—	—	—
TOTAL		4701	140619	2260	67880	1534	23084	38495	1332706	19435	371128	4176	78757



*"Your predecessor's report was a 'sanitary-inspector's' report. He regretted that academic inbreeding was all he could find only because I'd chosen my own kith and kin for staff appointments . . ."*



*"We accept them as being functionally literate once they are able to sign their names unaided . . ."*

## IAEA New Publications

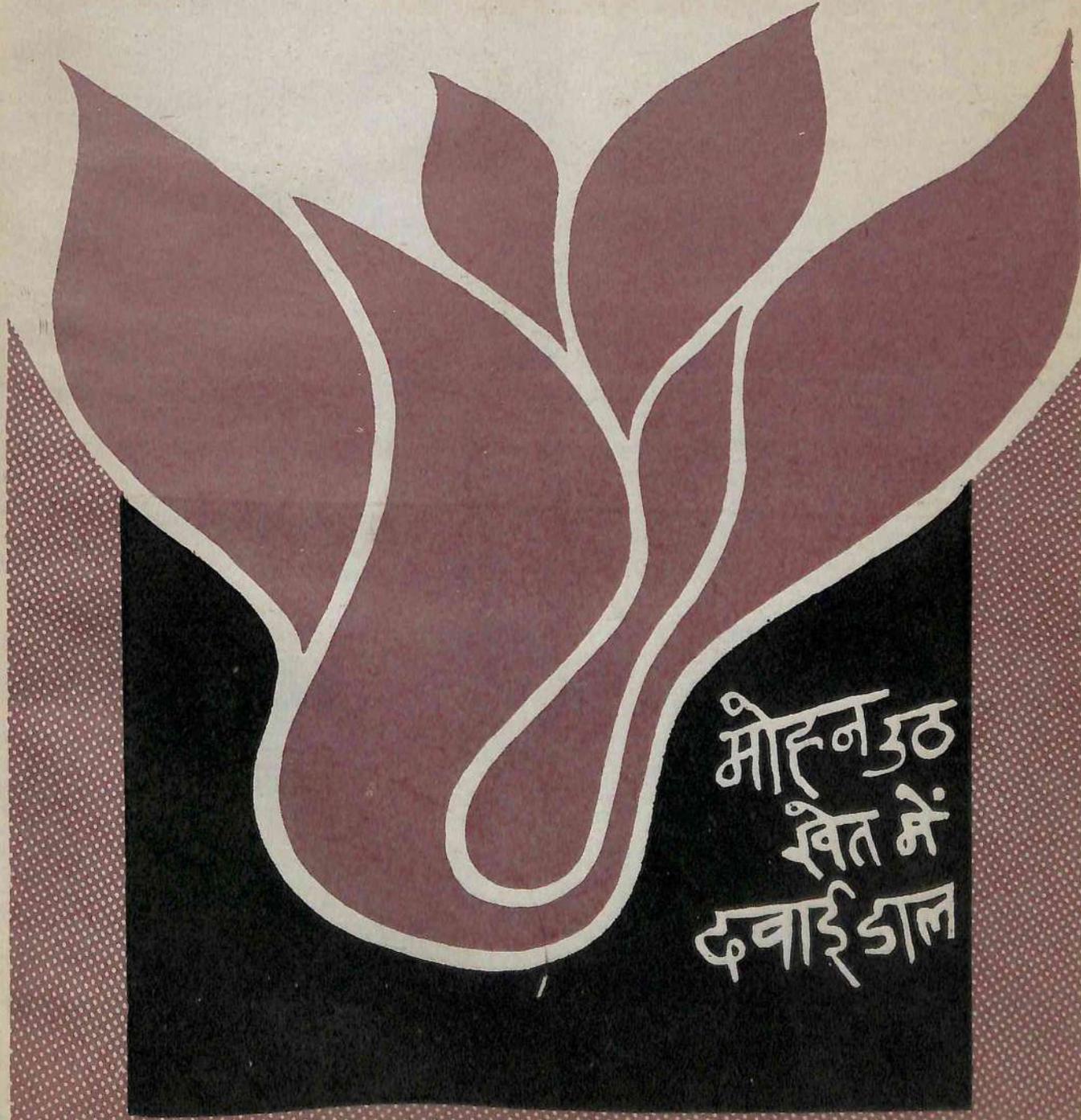
1. On to Eternity—Vol. III, 1974	Rs. 6.00 \$ 2.00
2. A Literacy Journey—C. Bonanni, 1973	Rs. 8.00 \$ 3.00
3. Adult Education for Women, 1973	Rs. 6.00 \$ 2.00
4. Adult & Community Education : An Indian Experiment— S.R. Mohsini, 1973	Rs. 10.00 \$ 4.00
5. Adult Education in India—A Book of Readings—Edited by Anil Bordia J.R. Kidd and J.A. Draper, 1973	Rs. 50.00 \$ 10.00
6. Adult Education for Farmers—J.C. Mathur, 1972	Rs. 12.00 \$ 5.00
7. Manual for Adult Literacy Teachers—N.R. Gupta, 1971	Rs. 10.00 \$ 2.75
8. Adult Education in the Seventies, 1970	Rs. 5.00 \$ 1.75
9. Adult Education and National Integration, 1970	Rs. 3.50 \$ 1.25

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# indian journal of adult education

theme : farmers training and functional literacy III



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# a review of fflp-1969-74

## origin and concept

One of the recent innovations of significance to developing countries is the concept of linking education to development, particularly for increasing production. The Farmers' Training and Functional Literacy programme, initiated by the Government of India in 1968, was an effort to translate this concept into practice. The project is a joint enterprise of three Ministries viz., the Ministries of Agriculture, Education and Information and Broadcasting, with assistance from UNDP/FAO/UNESCO in the form of experts, equipment and awarding of fellowships for training. It is an integrated project with three components: Farmers Training, Functional Literacy and Farm Broadcasting. The Ministry of Agriculture provides the farmers training and field demonstration facilities; the Ministry of Education provides functional literacy training, and the Ministry of Information and Broadcasting relays special types of farm-broadcasts through the All India Radio for the benefit of participant farmers.

The basic idea underlying the project is that there is direct correlation between physical and human ingredients in agriculture, between inputs such as new seed varieties, fertilizers, water and credit, and the upgrading of human resources (training, infor-

\*Based on Farmers' Functional Literacy Project, published by the Directorate of Adult Education, Ministry of Education and Social Welfare, Government of India, New Delhi, June 1974.

mation, literacy and agricultural know-how). In other words, this was an integrated, multi-faceted approach to the Green Revolution.

As the training and educational efforts were to be combined with the availability of physical inputs, the programme was launched in selected districts covered by the High Yielding Varieties Programme (HYVP). The use of High Yielding Variety seeds required the application of large dosages of fertilisers, carefully planned farm operations, and adoption of improved and scientific practices. The farmers education and training programmes would provide these essential inputs. The joint project was to cover about 100 such districts during the Fourth Five Year Plan (1969-1974).

## the concept of functional literacy assumed

- that literacy is not an end in itself, but has meaning only as a component of a larger scheme, composed of physical as well as educational inputs;
- that a programme of functional literacy has to help the farmer in his life and work, individual behaviour and community action, and in understanding and using complex technologies;
- that adults involved in improved farming practices would be interested in literacy if it comes to them as a part of knowledge necessary for their agricultural betterment and increased income; and

— that functional literacy curriculum is a composite one including reading, writing, numeracy, socio-economic knowledge, agricultural know-how, and practical experience.

Thus functional literacy is much more than literacy; it is in reality a method of training for development purposes, a comprehensive non-formal educational programme, an opening to continuing education.

## project expectations

The overall expectations from the programme during the Fourth Five Year Plan (1969-1974) were:

- (i) that the Farmers' Training component would train about 5 million farmer families in 100 H.Y.V.P. districts;
- (ii) that the functional literacy component would make about one million illiterate adult farmers functionally literate in these same 100 districts; and
- (iii) that the farm-radio broadcast component would establish 7 new stations and 47 'Farm and Home Units' in the existing radio stations to relay special types of farm-broadcasts for the benefit of farmers' discussion groups and functional literacy classes.

The specific expectations from the functional literacy component were that—besides the elementary knowledge of socio-economic aspects of agricultural modernisation, as well as the know-how for improved agricultural practices, and the awareness for changes in rural areas—it would in practical terms enable the farmers;

- (i) to read and prepare their own input cards ;
- (ii) to write simple letters ;
- (iii) to complete simple application forms for loans ;
- (iv) to keep simple accounts of farm operations ;
- (v) to read and understand labels on fertiliser bags and pesticides packages ; and
- (vi) to read and make use of simple extension bulletins, rural newspapers etc.

In other words, the programme was expected to enable farmers to perform efficiently all those functions which were necessary for them in the HYV programme. Since development

programme necessarily implies economic change, which, in turn, calls for behavioural adaptation to new techniques and standards of work and output, the functional literacy programme was also expected to prepare the participants to acquire the capacity to adapt themselves to change, as well as to take an active participation in the socio-economic change and in the life of the environment.

#### resources

The financial resources for the execution of the programme were provided in each Ministry's plan outlay in the Fourth Five Year Plan : (i) Rupees 6 crores in

the Ministry of Agriculture for the Farmers' Training component : (ii) Rupees 2 crores in the Ministry of Education for Functional Literacy component ; and (iii) about Rupees one crore in the Ministry of Information and Broadcasting for the farm broadcasting component. In addition, UNDP assistance to the joint programme amounting to about one crore was channelled through F.A.O. and UNESCO/UNDP, in the form of experts, equipment and training fellowships.

#### coordination

At the national level, coordination of the programmes bet-

**Table 1**  
**State-wise achievements under FFLP**

S. No.	State <sup>1</sup>	No. of districts.		No. of adults made literate	No. of f. l. classes functioned	No. of adults currently enrolled	Nos. trained.		
		Sanc-tioned	Started.				Lea- ders	Su- per vi- sors	Pro- ject offi- cers
1	2	3	4	5	6	7			
1.	Andhra Pradesh	8	5	3,898	94	2,878	83	5	2
2.	Arunachal Pradesh	1	—	—	—	—	—	—	—
3.	Assam	4	3	4,034	155	4,804	166	19	2
4.	Bihar	6	6	5,184	260	7,598	317	18	4
5.	Delhi	1	1	2,427	60	1,765	60	2	2
6.	Goa, Daman & Diu	1	1	—	NA	874	—	—	—
7.	Gujarat	6	5	7,059	224	7,030	234	21	2
8.	Haryana	5	3	5,592	90	3,030	60	—	—
9.	Himachal Pradesh	1	1	1,960	60	1,542	48	1	1
10.	Jammu and Kashmir	1	—	—	—	—	—	—	—
11.	Karnataka	7	7	11,044	354	10,390	434	48	5
12.	Kerala	4	4	—	224	7,422	—	—	—
13.	Madhya Pradesh	5	4	5,766	223	6,167	107	14	1
14.	Maharashtra	12	12	39,868	972	33,771	566	162	4
15.	Meghalaya	1	—	—	—	—	—	—	—
16.	Nagaland	1	1	NA	NA	NA	NA	NA	NA
17.	Orissa	4	4	12,142	240	7,719	235	22	4
18.	Pondicherry	1	—	—	—	—	—	—	—
19.	Punjab	7	5	8,040	236	6,238	246	23	4
20.	Rajasthan	5	4	2,930	214	5,360	188	21	2
21.	Tamil Nadu	7	5	18,552	300	10,645	300	28	2
22.	Uttar Pradesh	11	11	19,400	790	17,665	716	70	10
23.	West Bengal	7	4	3,479	240	7,109	240	21	4
		106	86	1,51,375	4,736	1,42,007	4000	475	49

ween the concerned Ministries is sought to be ensured through an Inter-ministerial Coordination Committee, consisting of representatives of the participating Ministries, UNDP/FAO/UNESCO and other technical agencies. This Committee is expected to meet regularly and review the progress of the project in terms of overall objectives and give guidelines for further course of action.

Coordination at the central level by itself is not adequate. Since agriculture and education are state subjects, and both the farmers training and functional literacy programmes are implemented through the State Governments, coordination at the state level is sought to be achieved through Inter-departmental Coordination Committees constituted on lines similar to those of the national committee.

Similar coordination committees are expected to be set up down to the grass-root level, where the farmers training centres and functional literacy classes are located, through the formation of district-level, block-level and in some cases even village-level coordination committees.

In addition to coordination at these committee levels, there are certain special areas where the function of the three ministries have to ensure the closest possible operational coordination. These are :

- the organization of training programmes for the functional literacy personnel ;
- supply of upto date information on agricultural practices and related matters, to functional literacy workers ;

- production of extension literature to suit the level of neo-literate farmers ;
- evaluation of functional literacy programmes ;
- preparation of teaching and reading materials related to the functional literacy programme ;
- maximum use of the medium of the radio in giving publicity to the literacy programme, location of classes, enrolment drives, etc ; and
- synchronising of the Farm and Home Unit programmes with the functional literacy classes.

### trargets and realisation

Against an outlay of Rs. 200 lakhs and a target of benefitting one million farmers during the Fourth Plan (1969-74), the programme could use only about Rs. 80 lakhs and benefit only about 300,000 farmers. The details of state-wise achievements under FFLP is given in Table 1 *Prima facie* this shows a shortfall in physical trargets to the extent of 70 per cent, but a closer look will show that the shortfall was not really so high as it seemed.

First, the programme did not progress as sanctioned. The number of districts where FFLP was sanctioned are given in table 2.

**Table 2**

*Year-wise sanction of districts under FFLP*

1967-68	—	3 districts.
1968-69	—	10 districts.
1969-70	—	25 districts.
1970-71	—	60 districts.
1971-72	—	80 districts.
1972-73	—	107 districts.

The actual position was, however, different from what the table above would lead one to believe. This was because there was a sizeable gap at every point between the sanctioned number and the operational position. Although the projects were formally sanctioned for 107 districts, by the end of the Fourth Plan, only 83 projects could actually begin to function, and several of them much later than the date of sanction. As a consequence, the starting of classes was correspondingly delayed resulting in holding up of enrolment and completion of courses.

Secondly, since the projects began at various points of time during the years, the classes could not run their full courses within the time available thus causing a shortfall in enrolment and output.

Thirdly, several districts were not able to run the full complement of 60 classes nor achieve the full enrolment of 30 adult farmers per class.

Fourthly, some of the classes, when they were started, had to be suspended for various administrative and organisational reasons delaying the starting of the next series of classes.

All these factors in various combinations contributed to the shortfall in achievement of targets.

A further major reason can be traced to the very basis on which the original targets were conceived. Initially it was thought that each class would be of 6 month duration thus enab-

ling two classes to be held at each centre. In actual fact, however, this span of time was found to be insufficient and impracticable. The duration of the classes had, therefore, to be raised to 12 months (operational 10 months) with the result that each district's capacity even at its maximum intake, could not exceed 1800 adult farmers a year.

Even if the programme had worked to its full capacity in all the 100 districts sanctioned and if all the classes could have run the full course each academic/financial year, the total number of beneficiaries could not have exceeded 5.7 lakhs.

### conceptual understanding

Although there has been a break-through in a general acceptance of the concept of functionalism in literacy programmes, there is still considerable conservatism and traditionalism at various levels. A proper understanding of the concept and approach underlying the programme is still to gain ground among the field workers. A 3 page pamphlet sent by the Central Ministry of Education to the State Governments, provided information about the organisational and financial aspects in broad terms, but conveyed very little of technical and professional knowledge about the operational methodology necessary for starting an innovative programme of this kind. A quick survey of the functional literacy programme in 10 districts in April, 1970, undertaken jointly by the officers of the Ministries of Education and Agriculture confirmed the urgent need for clarifying the concept of functional literacy

among the functionaries of the programme at different levels.

### prospects in the fifth plan

The future development of Farmers' Functional Literacy Programme must be seen in the light of the targets set in the Fifth Plan (both by the Ministry of Agriculture and the Ministry of Education).

The increased foodgrains production is one of the major objectives for the next plan period. The estimated figures for the end of Fifth Plan (1978-79) task becomes clear if it is compared with the record foodgrains production of 108 million tonnes in 1970-71, as well as with the average production for the Third Plan period 82 million tonnes, and the average foodgrain production during the first four years of the Fourth Plan, of about 102 million tonnes. Since the aim of the Farmers' Training and Functional Literacy Programme is essentially, in the final analysis, increasing food production in the country by helping inter alia, the illiterate farmers to acquire not only literacy skills but also agricultural information which could be immediately used by them. There is an urgency to place greater emphasis on the implementation of Functional Literacy.

The Ministry of Agriculture visualise that the Farmers' Training Programme, which during the Fourth Plan had been confined to the High Yielding Varieties Programme areas only, will also be extended to other new areas where programmes like Dryland Farming Project, Multiple Cropping Projects, Small and Marginal Farmers Programme, etc., are in operation. The Fifth Plan puts

emphasis on employment problem. Regarding the labour-force explosion, it is stated that the country has to plan to transform this serious threat to growth and stability into a powerful aid to progress. That as has been stated in the Approach to the Fifth Plan, 1974-79 is the crux of the employment problem. In a recent statement the Ministry of Education has declared: "In the field of direct attack on adult illiteracy, we have two main programmes in view. (The second one is) to link literacy programmes with other developmental and employment programmes included in the Fifth Five Year Plan".

The Fifth Plan will devote itself to strengthening the project in these directions, particularly to link literacy with agricultural, employment and development programmes. To achieve this result, the following measures will be taken among others:

- (a) Revitalising the coordination committees and their functioning at all levels;
- (b) Accelerating the appointment of full-time project officers in all the districts ;
- (c) Ensure the development and supply of suitably designed curriculum materials ;
- (d) ensure training/orientation of project personnel ;
- (e) improved evaluation feed back and data inflow system;
- (f) ensure closer link between functional literacy, agricultural and development processes at all levels;
- (g) streamline the administrative machinery to ensure the even flow of funds from the Centre to the district.

# farm broadcasting in india

M.G. Kamath

Two random opinions, from two different parts of India, sum up how farmers have reacted to the Farm and Home Programmes of All India Radio (AIR). They are :

"Even though I get the latest literature on farming and am in constant touch with experts both in the Department and the University, I never miss the daily morning Farm and Home Programme for one important reason : it serves me as a personal reminder of what field operations I should attend to immediately, which normally I would have postponed by a few days. In other words, the radio keeps me alert and active."

"None of us who have radio sets in our village misses the Farm and Home Programmes. Listening to the programmes is just like employing an agricultural expert to give us practical advice daily at our own homes."

The first opinion from an educated, highly progressive farmer, was his summing up of the benefit to him of the Programme. The second opinion was from a group of farmers, most of them illiterate and anxious to do better in their farming.

AIR's Farm and Home Programmes started as an experiment on 10 selected stations located in agriculturally advancing areas in 1966. Until then, all major stations of AIR were broadcasting programmes beamed to the

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rural people with a fare that was a mixture of entertainment and education, the latter taking in all topics that concerned rural living and development, with agriculture featuring twice a week on Tuesdays and Fridays—the "Forum Days".

## farm and home units

The need for intensive broadcasting arose out of the gradual specialisation in agriculture in India, which completely changed the informational needs of farmers. Intensive agricultural development programmes, with the evolution of packages of practices to be followed for each crop based on local experimentation and experience, made it necessary that the farmers be given intensive education and be assisted in adopting the improved practices. The informational needs became more specific when the farmers needed to be told of practices suitable for their own areas which could immediately be translated into their own fields.

In view of this important development, and in consultation with the Union Ministry of Agriculture, Farm and Home units were created. The new broadcasts differed in their approach and content from the older rural programmes. The Farm and Home Programme was to establish a continuous and intensive communication line between the specialists, scientists and extension people on the one hand and the farmers on the other. Farm and Home units were to broadcast technical information from

the field to assist farmers in the day-to-day operations from seeding to harvesting and storage and to keep them posted with information which would benefit them.

To man the Farm and Home units, graduates in agriculture with experience of from three to five years in agricultural extension and communication who are completely at home with the local language and dialects have been selected and trained in broadcasting techniques.

In each unit, there are three such qualified and experienced men. With their audience knowledge they are able to fulfil the information requirements of the farm population within the listening area of each station. At the same time, to ensure that the information put out is authentic, the farm broadcasters remain in constant touch with the agricultural university specialists, agricultural experts, research stations, training institutions and State and District level agricultural specialists just as much as with organisations connected with agriculture.

The main Farm and Home Programme is in the late evening. It consists of 8 half-an-hour of 'hard-core' broadcast, problem-oriented and going along with the package of practices concerning crops and the area served by the station. A morning bulletin of 5 to 10 minutes was also started to provide topical hints on farm operations to be taken up by farmers in the following 24 to 48 hours. Important announcements, such as arrival of seed, were repeated in these bulletins. Some of the stations started an after-lunch 10-minute programme,

explaining the technical background to some of the important operations to be done so that crops made money.

Special Question and Answer sessions were specifically planned to clear doubts and give clarifications and answers to questions.

## results

The results from the Farm and Home broadcasts from the 10 stations more than justified the experiment. So similar units were set up in other stations, in consultation with the Union Ministry of Agriculture. This made sure that profitable agricultural areas could be provided with intensive radio communication for the benefit of the farmers who were participating in the farm production projects in those areas.

As a result, 22 more stations started broadcasting Farm and Home programmes. Units at more stations are being set up. All India Radio proposes to have such units ultimately from all stations, present and future.

Through the farm broadcasts, the Ministry of Agriculture has been able to get an excellent communication channel for its dialogue with farmers to assist them to keep pace with changing agricultural technology and take part actively in the various schemes and projects being carried out to improve agricultural production. The farm radio in India works in close co-operation with the Agricultural Ministry and the Department of Agriculture of the State in which the station is located.

A distinct advantage of such co-ordination has been the mini-

mal 'loss' of information from the source to the broadcast. The broadcaster, being an agricultural man, has been able to create a good image of radio as dependable medium of information.

## radio credibility

Credibility of radio broadcasts is important to farm listeners. "Heard it on the radio" is a common expression that one is likely to hear when asking about the adoption of a new method. When farmers in the Coimbatore District in the south heard on radio that the ADT 27 variety of rice was recommended for large scale trial in the neighbouring district, they could not resist the temptation of trying it out themselves in their fields, and the variety, obviously for easier identification, came to be known as "radio rice" in the district. They also relied on the radio for the special practices needed to raise this variety.

When the agricultural breakthrough came with the introduction of high yielding varieties, farm radio became one of the top sources in the spreading of information of these varieties. A study conducted immediately after the high yielding varieties were introduced showed that 1 out of every 5 farmers heard about the varieties from the Farm and Home broadcasts, while in areas where there were no Farm and Home Units, the figure was 1 in 10. Farm Radio also helped spread the new practices quickly.

When the high yielding crop varieties spread, it was seen that to get the best yields from them, proved methods, based on local experiment and experience, should be followed. Farm broadcasts give continuous information on this to allow farmers to know

what these methods were. The problems in the field needed quick solutions to give a good yield. This service was provided on the radio. Each station with the Farm and Home broadcasts received many questions and requests for information from farmers. Last year, Farm and Home units received over 50,000 letters from farmers. Answers to questions broadcast totalled more than 150,000 in one year.

## farmers' training and functional literacy

Farm radio has also been used to provide full support to the massive Farmers' Training and Functional Literacy project undertaken by the Government of India. The Union Ministries of Agriculture, Education and Information and Broadcasting are responsible for this project and receive expert and financial assistance from the FAO, Unesco and the UNDP. This project aims to train 6,000,000 farmers in agricultural technology to increase farm production and make about 1,000,000 farmers able to read and write. For the Project, 100 districts have been selected and farmers taking part are organised into listening-discussion groups of 300 for each district on the lines of Radio Rural Forums.

Farm Radio is supporting the project and is encouraging farmers to make full use of training facilities and to attend the scientific field demonstrations which are conducted by specialists in each district who provide supplementary information and answer questions from the farmers taking part. Follow-up broadcasts are programmed to make use of the benefit of training by visiting the trained farmers in their own fields

# who adopt improved farm practices

R. S. Nirwal

B. S. Arya

and to turn back to the training centres new problems that these farmers face in attempting the improved practices they learned at the trading camps. So there is a continuous link between trained farmers and the State Agricultural Department.

Field visits and recordings form an important feature of the Farm and Home Programmes. The broadcaster spends 15 to 20 days each month on field recordings. The Departments of Agriculture in each State consider radio an important aid in their extension and advisory work with farmers and many have named an officer in the Department to cooperate with radio. In many States, district officers report to him daily on happenings and operations to be taken up urgently by farmers. The officer picks out the important matters and scripts them for five-minute broadcasts the next morning. This way, farmers in the different districts of the State get highly localised and accurate information for immediate use. Agricultural universities in India have followed the idea and are taking an active part in the broadcasts.

Farm and Home Programmes, commanding a wide listenership and actively aiding efforts to provide a better deal to our farmers, are naturally a favourite subject for institutions and post-graduate students on which to make surveys and in-depth studies. India is a vast country with an agriculture so varied and a farm audience so complex that a study conducted in one State cannot apply completely to others—even, sometimes, its neighbouring State. However, these studies have given a good insight into listening habits, the likes and dislikes of the listeners about the programmes and the effect of the broadcasts on them.

The agricultural scientists have evolved many high-yielding varieties for the adoption by the cultivators. At present, they are trying to unveil the agricultural system based on customs and traditions by discovering new farm technology for adoption by farmers. It is observed that some cultivators adopt while others do not adopt new farm technology. This is a symbol of partial and slow rate of adoption of agricultural innovations by the cultivators which result in the low production of food grains. Not only the socio-personal characteristics of the cultivators affect the adoption rate but also the availability and communication of farm technology determine this process. To increase the country's agricultural production to the desired rational level, the personnel engaged in extension work must have understanding of factors associated with this phenomenon, such as farmers' socio-personal traits, appropriate extension methods to disseminate the new farm technology and inputs which should be made available to them

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in order to create healthy conditions for speedy adoption of improved farm practices.

Keeping this in view, the present study was designed to work out the association of socio-personal characteristics of farmers with the extent of adoption of improved farm practices. We have not included the association of other factors (extension methods, inputs) with the extent of adoption in our research design.

## methodology

This study was undertaken in a single village in the district Rohtak of Haryana State. The selection of the block and the respondents has been done on the basis of purposive sampling. The following criteria were taken into consideration while making the selection of the village—

- (a) Large size of the village,
- (b) agriculture as the main occupation of the villagers,
- (c) nearness to the block headquarter,
- (d) the village should be headquarter of V.L.W. and Agriculture Extension Officer.

Two types of variables have been taken into consideration for the purpose of study and analysis; the first set of variable is scientific technological while the other personal social. They are as follows—

### a. Scientific technological variable

#### (a) Improved seeds:

- Wheat :- S-307, S-308, Larma Rojo, Sonora-64, K 227 and PV-18.

- Barley :- C 164 and C 138
- Gram :- S-26 and G-24
- Mustard :- BSH. 1 and Y.S. Pb. 24
- Bajra :- Hybrids i.e. HB No. 1,2,3, and 4.
- Maize :- Hybrids.

#### (b) Chemical fertilizer:

- Nitrogenous—Calcium Ammonium Nitrate, Ammonium Sulphate and Urea.
- Phosphatic —Di-Ammonium Phosphate, and Super-Phosphate.
- Potassic—Murate of Potash.

### b. personal social variable

#### (a) Age

All the respondents according to their age were categorised into three groups: young (below 30 years), middle (31-50 years), and old (above 50 years).

#### (b) Size of holdings

According to their land, the respondents were classified into three groups: small (upto 10 acres) medium (11-20 acres) and large (above 20 acres).

#### (c) Caste:

All the respondents were grouped into two categories: higher castes (Jat and Brahman) and lower castes (Mali, Carpenter, etc.)

## findings

Major findings of this study are being presented in relation to variables specified above.

#### Age

The frequencies of respondents falling in three age groups are presented in table 1.

The data in table No. 1 shows that 70%, 86.24% and 58.62% of young, middle and old categories of respondents, respectively adopted the improved farm practices. The highest percentage in the middle age may be due to maturity attained at this stage. At this stage individual is more venturesome and curious about the things around him. The decline in percentage at old stage may be due to the reasons that old people are more conservative, do not believe in new technology. They also take less risk because of advanced age. We find that age and the adoption of new ideas are significantly related. The chi-square is 7.75 with 2 degree of freedom.

**Table 1**  
**Age and Extent of Adoption of Improved Farm Practices**

Age groups *A/NA	Young		Middle		Old		Total	X <sup>2</sup> Value
	No.	%	No.	%	No.	%		
Adopters	14	(70%)	44	(86.24%)	17	(58.62%)	75	7.76** df=2
Non-Adopters	6	(30%)	7	(13.76%)	12	(41.38%)	25	
Total	20	100	51	100	29	100	100	

\*A stands for Adopters NA stands for non-adopters

\*\*shows significant result at 5% level.

### Farm size

The following table reveals the relationship between size of farm and the extent of adoption.

General observations reveal that the size of farm is an indication of the wealth and other resources which farmers possess. Based on this observation, it could be hypothesized larger the farm size, greater is possibility of adoption of improved farm practices. The data presented in the table 2 below speak that 59.42%, 100% and 100% of respondents who belong to small, medium and large size farm respectively have adopted the improved farm practices. The low percentage of adoption by the respondents having small farms as compared to medium and large size farms may be because of lack of adequate

material and other resources. It is worth noting that the respondents falling in medium and large categories of farm size have made the full scale use of new farm technology. The significant value of  $X^2$  at 5% level speaks of the association of size of farm with the adoption of improved farm practices.

### Caste:

Occupation based on caste is a traditional feature of Indian social structure. Certain castes earn their livelihood through farming and this makes them better farmers. The table 3 below present the frequency of respondents falling in two caste groups.

The data in the above table reveal that 100% and 12.50% respondents of higher and lower

caste groups respectively have adopted improved farm practices. It is worth noting that all the respondents of higher caste group have adopted improved farm practices. The lower percentage of adoption in case of lower caste respondents may be due to low holdings as a result of the stratification system in Indian society and consequently inadequate resources and secondly it may be due to unfamiliarity about new farm practices because change agents visit only those farmers who have high status and prestige. It is evident from significant value of  $X^2$  that the extent of adoption of improved farm practices is influenced by caste.

### conclusion

The foregoing findings reveal that considerable adoption of improved farm practices was found in the respondents who belong to middle and young age group, possess medium and large farm size, and belong to upper caste groups. The generalization which can be drawn from the study that the farmers who are young, having medium and large farm size and of upper caste should be contacted to have a trial on their fields of newly released farm practices in order to convince the large majority so that agricultural production can be improved and raised. Parallel studies can be conducted in other areas which would help extension agency in promoting desirable information through the adopters to non-adopters but also evaluate the progress of farmers in terms of acceptance of improved farm practices for their own benefit and for the welfare of the nation also.

**Table 2**  
Size of Farm and Extent of Adoption

Farm size	Small		Medium		Large		Total	$X^2$ Value
	No.	%	No.	%	No.	%		
*A/N.A.	N=69		N=17		N=14			
Adopters	41	(59.42%)	17	(100%)	14	(100%)	72	
Non-adopters	28	(40.58%)	—	—	—	—	28	10.65** df=2
Total	69	100	17	100	14	100	100	

\*A stands for adopters N.A. stands for non-adopters

\*\*shows significant result at 5% level.

**Table 3**  
Castes and Extent of Adoption

Caste group	Higher		Lower		Total	$X^2$ value
	No.	%	No.	%		
*A/N.A.	N=68		N=32			
Adopters	68	100%	4	12.50%	72	63.58** df=1
Non-Adopters	—	—	28	87.50%	28	

\*A stands for Adopters N.A. Stands for Non-Adopters.

\*\*indicates significant result at 5% level.

## early studies

Towards the attainment of the objectives, a number of studies were undertaken. The first evaluation study was made in 1969, within a year of the launching of the project. This was conducted by the Ministry of Agriculture, through an Evaluation Committee appointed by the Central Government. The Committee observed: "The Functional Literacy Programme due mainly to its immediate use-value to the farmer, has met with satisfactory response. The effort, however, needs to be expanded considerably with a built-in facility in the programme for concurrent follow-up".

Since the inception of the programme evaluation of the project has been considered an integral and in-built element at all stages of programme implementation. The scope of evaluation has thus covered : the initial survey for programme preparation and development ; action research for qualitative improvement of the programme; experimentation to judge the comparative effectiveness of alternative methods; and measurement evaluation to determine the impact of the programme in the light of objectives.

Evaluation was to serve two purposes to provide the feedback for programme improvement and to determine the impact of the project in terms of measurable results.

This was followed by a quick survey of the Functional Literacy Programme in ten districts by the Ministry of Education in collaboration with the Ministry of Agriculture. This survey revealed both the strong and weak points of the programme at the operational level. The findings helped in highlighting the drawbacks in the programme and indicating directions for improvement.

A more scientific evaluation was carried out in Lucknow district in Uttar Pradesh in November-December, 1970. This was an *ex post facto* investigation with experimental and control groups and was conducted in 4 Blocks covering 16 villages and 320 respondents. The study brought to light some very positive findings and encouraging results. The programme was found to be efficacious (i) in developing literacy skills of varying degrees of utility, (ii) in effecting certain attitudinal changes among the

participants. It would be worthwhile recapitulating some of the major observations and conclusions of the study.

## lucknow study

The literacy attainments of the participants showed that approximately 60% of the respondents could read correctly about 10 to 20 words per minute and another 20% had a speed of more than 40. In comprehension an average participant was able to follow about two-thirds of what he could read. In writing, the ability, was judged by giving a dictation test, or a transcription test to those who could not write dictation. 76% of the respondents could take dictation and their writing speed varied from two words per minute (in 16% cases) to more than four words per minute (in 29% cases). 80% of those who took transcription test could copy reasonably well. In arithmetic, the performance was rather diffused because whereas 22.5% could not solve any problems, there were about 55% respondents who could get more than 50% scores and another 25% who get scores above 80. How best they could put to use the literacy skills acquired by them during the course was judged by giving them an exercise in preparing farm plan. Nearly 40% of the respondents had 12 scores out of a maximum of 14 which indicates a relatively good performance.

The drop-out rate was as low as 17.5% which reflects creditably on the organisational efforts and on the strong motivation on the part of the learners.

\* Excerpts from Farmers Functional Literacy Project. A Review of Fourth Plan and Folder is published by the Directorate of Adult Education, Ministry of Education and Social Welfare, Government of India.

It was also noticed that Functional Literacy was directly related to the participants' knowledge about agricultural innovations. A group which had received functional literacy training knew nearly twice as much about recommended agricultural practices for wheat as the illiterate group. The relationship between literacy and knowledge of these practice also showed that knowledge was regarded as low for 64% of illiterates, whereas it was only 13% among the literates. This indicated nearly a five-fold difference.

A study of the adoption process of the participants revealed that for four inputs, namely, seeds, fertilizers, implements and insecticides, the group exposed to functional literacy had a higher percentage of those who had passed through the stages of awareness, interest, trial and adoption than its counterpart who were not so exposed. It was also found that a higher percentage of functional literacy participants who were aware of the practices had also adopted them. The rate of adoption of agricultural practices showed that it varied directly with literacy level and was low in the case of illiterates. The obvious conclusion was that functional literacy training contributed substantially to the attainment of knowledge about HYV practices and in increasing the adoption rate.

The respondents covered by the functional literacy programme had a more favourable attitude towards educational programme and they had better realisation of the utility of literacy in their vocation. Such a change in

attitude was reflected in the changes in styles of life. The functional literacy group had greater contact with extension staff, their interest in reading newspapers had a direct relationship with literacy performance, they had greater exposure to mass media sources, and they participated more in social organisation.

The degree to which these attitudinal changes result in increased social productivity for the village and the larger community will be the ultimate value test for the functional literacy programme.

These findings assume special significance when we find that over 90% of the respondents were from scheduled castes and backward classes.

This study was basically an *ex post facto* study but used the control group for comparison purpose. It suffered from all the known limitations of such a design nevertheless it provided valuable data under available time-period and necessary feedback to planners and operational staff.

### **experimental controlled study**

To overcome the limitations of the Lucknow study, the Directorate of Adult Education of the Ministry of Education and Social Welfare initiated a full-fledged experimental study on a "before-and-after" pattern with external and internal control groups to obtain precise measurement of the impact of functional literacy programme in its relationship with other components of the project. The baseline data was collected during 1971-72

and the second phase of data collection was completed in 1973. The two sets of data are being compared for experimental and control groups for the two time intervals. The data processing work has been completed, the interpretation is in progress and the initial findings have started emerging. The Report is currently\* being drafted.

### **3 district study**

Pending completion of the experimental study mentioned above, a quick assessment of the socio-economic impact of functional literacy in three districts was carried out with a view to furnishing to the UNDP and national authorities evidence of the success of the programme at a time when far-reaching decision on its future were to be taken up. The three districts represented the Western, Southern and Northern regions as also the three cropping zones viz., wheat, bajra and maize, jwar and paddy cultivation. The Eastern region could not be covered owing to limitations of time and staff. The study aimed to assess from the participants, the changes in agricultural yield, changes in levels of income, changes in standards of living as measured by possession of material goods, and the changes in the socio-economic situation of the whole community. In addition to these, a rudimentary pedagogical assessment was also attempted. The study had an *ex post facto* character and used experimental and control groups. It was carried out in December, 1972 in Kolhapur (Maharashtra), Bangalore (Karnataka) and Agra (U.P.). The studies again showed

\* June, 1974.

encouraging results on indicators of change in agricultural yield, income and durable goods at the participant level and changes in socio-economic situation at the community level. The project staff, farmers and leaders testified to the fact that functional literacy had an impact on socio-economic development in rural areas.

With regard to the agricultural yield it was found that in the experimental villages there was marked increase in the average yield per acre as compared to the situation before the treatment was started and to the conditions prevailing in the control groups. With regard to the annual income, it was revealed that the incomes of the participating farmers increased substantially. With regard to the possession of durable goods, the data from the three districts revealed that the respondents covered by Functional Literacy programme possessed larger numbers of both household articles and agricultural implements than those in control groups.

With regard to the total socio-economic situation, it was found that the farmers who underwent a functional literacy treatment had more favourable attitudes towards modernisation in general and socio-economic improvement of their respective communities in particular as compared to the 'before' situation, and to the attitudes of the farmers who did not participate in the programme. This was reflected, first of all, in a higher degree of awareness and actual adoption of improved agricultural practices. In addition, it was visible in the overall development of the entire com-

munity. In the experimental villages, more often than in the control villages, various social amenities and facilities such as sanitation, access roads, drainage, drinking water, irrigation, were introduced, and new village institutions such as youth clubs, cultural and sport activities, were established.

The findings of the study as they have emerged, can serve as feedback and pointers for further research in depth. It must be admitted, however, that the study was neither a sophisticated piece of social science research nor a rigorous evaluation study but only a quick assessment of the socio-economic impact of the programme. It would be necessary to undertake large scale surveys to corroborate findings of the study.

### **operational evaluation**

Alongside the quick study, the Directorate of Adult Education conducted an Operational Evaluation of the Functional Literacy Programme and prepared a report on the basis of field trips to selected areas, discussions with those involved in the programme at various levels and analysis of secondary data. It examined the organizational structure, the target setting, the staffing pattern, the finances, administration, training, teaching materials and methods, teaching-learning situation etc. in order to suggest measures for making the programme more effective both in structure and in function. It was expected that the study would help in a serious diagnosis of the situation whereby the shortcomings and bottlenecks in the programme could be remov-

ed and alternatives suggested for problem-solving.

The report concluded that the structural and organizational patterns of the Project were not commensurate to its goals; high target setting and quick expansion resulted in a great strain on the administrative machinery. Among the weaknesses, it was mentioned that the needed inputs such as adequate and smooth budget allocations, competent teachers, abundant instructional materials, full-time administration and supervision, efficient transportation, adequate facilities in the class, were not fully provided and these affected the final output in respect of both quantity and quality. Among the good (positive and facilitating points) strong motivation on the part of adults, dedication of the bulk of teachers and staff enthusiasm of voluntary organizations would seem to have compensated for some of the weaknesses.

Apart from these studies which followed different shades of semi-scientific and scientific methodology, there exist a few works which cannot be strictly classified under the head 'evaluation' but still lend support to evaluation (see Table). However, compared to the vast coverage by the programme in size and population, the evaluation made so far would seem small. Nevertheless, the studies do help to indicate that given all the inputs into the system, it can function effectively and help achieve the goals of the project. During the coming years, a vigorous evaluation programme will be mounted to cover larger areas in the country and other fields of the project such as training, materials and media in use.

TABLE

## Objective-wise and agency-wise list of evaluation studies of FFLP

Title of the study	Objectives	Location and sample size	Year and organization which conducted the study
Report of the Evaluation Committee	To determine the progress and impact of the programme since its inception	In four districts-interviews	1969 Ministry of Food, Agriculture and Community Development
Quick survey in ten Districts	To assess the functioning of the local programme.	All ten districts covered upto 1968-69	1970 Ministry of Education and Youth Services
Impact of Functional Literacy on Agricultural Development	To study the adoption of farm innovations and the behavioural changes	District Mehboobnagar, in three villages (with 3 other control villages)	1970 Extension Education Institute Agricultural University, Hyderabad
A Pilot Evaluation Study	To study : a) impact on participants b) attainment of literacy skill c) teaching-learning situation	District Lucknow in 12 villages with 240 respondents (4 control villages with 80 respondents)	1971 Directorate of Adult Education
Operational Aspects of the Programme	To identify factors that facilitate or hamper the execution of the programme	Observations during field trips to Jaipur, Udaipur, Bhubneswar, Poona, and Lucknow	1972 Directorate of Adult Education
Impact on learners	Particularly : the relationship between previous educational levels and performance in final test	District-Trivandrum (Kerala)—in 10 village Centres, with 287 respondents	1972 Department of Education, University of Kerala
Socio-economic impact of Functional Literacy Programme	Quick assessment of the impact of literacy on : a) agricultural development b) agricultural production	Districts : Kolhapur, Bangalore, Agra	1972 Directorate of Adult Education
Six-monthly Report (one District)	To assess the gains by participants in the first phase of the project	District : Kotah	1973 Evaluation Panel, District Inspector of Schools
Semi-annual Report (one District)	To assess the gains by the participants, after the first half of the course period	District : Jaipur in six villages, 98 respondents	1973 Evaluation Panel, District Inspector of Schools
Study of the FFL Project	To assess the effectiveness of the Programme	District : Bharatpur (Rajasthan) in 6 villages, 85 respondents	1974 Directorate of Extension Education, Udaipur University
An Experimental Study of the Project in Jaipur	To study the impact against the following indicators : — awareness — understanding of basic agricultural technology — adoption of improved agricultural practices — attitudes towards adult literacy — level of literacy skills acquired.	District : Jaipur (Rajasthan) in 16 villages (4 control-villages) with 267 respondents (76 control respondents)	1971-73 Directorate of Adult Education

# krishi vigyan kendras or agricultural polytechnics

## report of a committee

### basic concept of the krishi vigyan kendras

1. The Kendra will impart learning through work experience, and hence will be concerned with technical literacy, the acquisition of which does not necessarily require as a precondition the ability to read and write.
2. The Kendra will impart training only to those extension workers who are already employed or to

practising farmers and fishermen. In other words the Kendras will cater to the needs of those who are already employed or those who wish to be self-employed.

3. There will be no uniform syllabus for a Kendra. The syllabus and programme of each Kendra will be tailored according to the felt needs, natural resources and the potential for agricultural growth in that particular area.

### introduction

The majority of our peasants are illiterate, whose percentage is higher in backward areas, such as arid and semi-arid regions, tribal areas, and forest villages, where scientific transformation of the rural economy requires much greater understanding of the principles of economic ecology. Therefore, it is obvious that unless programmes to impart the latest technical skills to illiterate peasantry by the method of learning by doing is initiated, the farm production goals would not and could not be achieved. These Kendras should select in each area such means of economic growth which are most likely to give major benefit to the poorest sections of the community. In other words, those who are setting up the Krishi Vigyan Kendra will first have to make a survey of the agricultural potential of the area and then identify those aspects of growth which could help increase the purchasing power and the productive capacity of the poor.

Having analysed the most important methods of improving the income of the poorest section of the community and identifying the major thrust, the Krishi Vigyan Kendra has to provide training which will help the trainees to initiate changes in their respective occupations. For example, in the case of Pondicherry fishermen, the training will be in area of coastal aquaculture, which will help to undertake fish culture in coastal estuaries, in addition to improving the techniques of fish capture. Similarly, the animal husbandry programme will impart skills in genetic upgrading, cultivation of nutritious grasses

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and legumes as well as in the use of wastes enriched with urea as feed, health care through sanitation and immunisation, and better processing and marketing techniques.

In the present context the recent observation quoted below from the report of the IUC/IBRD team on Agricultural Polytechnic which visited Tamil Nadu in May/June 1973 may be relevant in comprehending the concept envisaged.

The inservice courses we envisaged at an Agricultural Polytechnic 'Krishi Vigyan Kendra' would be mostly of short duration (1-3 months) and would, we believe, attract farmers' sons and daughters.

Courses in the Agricultural Polytechnic should be tailored to the needs of the area served and should be for both men and women. The following types of courses might be provided: cultivation of local crops, application of package of practices; farm planning; plant protection care and feeding of animals; poultry keeping, tube-well operation, irrigation and water control, nutrition, cooking and hygiene, food processing and cooking, marketing of agricultural products, catching and marketing of fish, etc.

The success of the whole scheme of these Kendras would be ensured if the programme is made as flexible as possible, both in vertical and horizontal dimensions, attuned specifically to the needs of the area of its location. The key-note of these Kendras should be to endow the local community with skill according to the stage of development

and the density of population so as to enable it to improve the economic conditions for better living of its members.

Women play an important role in such improvement in agricultural production, particularly in post-harvest operation. Therefore, women's training programmes to increase their efficiency in agricultural operation and improving family living are also important. Since Krishi Vigyan Kendras will be an innovative institution, developing training programmes to suit the expanding needs of agricultural development, they will have to function as autonomous units so far as their academic programmes and internal administration are concerned. The training programmes should mostly have need-based courses of durations of a few weeks or of a few months or even of a longer duration of one year or two years. These may be part-time and own-time education courses. Some of them could be correspondence courses which go into depth and be of sufficiently long duration of one year or two years. The evaluation will be a built-in component of the programmes to review and improve the courses according to the needs of the region, clientele and general development programmes.

In the staffing pattern, emphasis will be on recruiting as core staff, well-experienced and specialised persons. Some of the expert craft teachers may be hired for short periods whenever required for specific courses. The proposed farm science instructors' training centres should be utilized mainly for instructors'/ teachers' training in a particular

subject course. The participants of the course would constitute the pupils for the teacher trainees to learn and to practise teaching methods.

It is proposed to establish 50 Krishi Vigyan Kendras during the Fifth Plan in the States in a phased manner according to a time-bound programme. It is suggested that negotiating Central team should be sent to the States to explain the idea to the State Governments, who would be ultimately responsible for implementation of this scheme. To begin with, Central support should be made available during the Fifth Plan. However, in the Sixth Plan, the Krishi Vigyan Kendras will be transferred to the State Governments and assistance will be provided on the sharing basis. This strategy was adopted in the early Sixties for the establishment of Agricultural Universities in the States.

At the Central level in the ICAR, a small Standing Committee should be set up to help implementation of the programme and to guide its progress on sound lines. It will be in constant touch with the State level authority and also with the Kendras, particularly those which are established by non-official voluntary agencies.

The financial aspect of these centres calls for careful consideration. In addition to basic assistance on the part of the States, maximum Central support (as Centrally supported scheme) is essential.

The type of technical education offered at the centres in support of agricultural production should be supplemented with

general education also, so that the persons trained at these centres become more alert and active citizens of the community. It is, therefore, emphasised that the programme should be flexible and the University/State Government/Voluntary Agencies operating the centres should have the freedom to make necessary changes in the training programme as and when needed. The programme should be operated as a plan of continuing education—both in the technical and general sense.

The recommendations made by the National Commission on Agriculture in this respect should be considered as guidelines for implementing the scheme of Krishi Vigyan Kendras. The overall socio-economic development of the families and the community should be always kept in view.

Various agencies should be involved or included in the establishment of Krishi Vigyan Kendras. There should be a live link between the farmers' training centres, gramsevak training centres, extension training centres and Krishi Vigyan Kendras. The programmes in these centres should be linked with the technical literacy programme to provide techniques required for the uplift, as far as possible, of the poorest section of the rural community.

## RECOMMENDATIONS

### institutions

The 50 polytechnics proposed to be set up during the Fifth Plan may be established in a phased manner on the basis of need and suitability for different regions. The committee at the National

level may select the location of the centres in consultation with State Governments and other State institutions like the Agricultural Universities and voluntary agencies with experience in the field of farmers' training and social education. These institutions should have active collaborative relation with the State Agricultural Universities so that they receive the necessary technical guidance. Such institutions can be started by various agencies such as the Agricultural Universities, State Departments of Agriculture or voluntary bodies with appropriate field experience. Apart from starting institutions *de novo* similar existing institutions like agricultural schools, namely Rural Institutes, Basic Schools running on 'Wardha' lines (having agriculture as one of the crafts) extension training centres, and farmers' training centres, could also be adopted, strengthened and reorientated according to the needs of the area for offering the desired types of courses. Each centre should have an active advisory local committee consisting of representatives of people concerned with the development of the area. The committee may suggest types of courses to be offered and should meet regularly to keep an eye on the progress of the scheme.

### state and central unit

At the State level the scheme should be supported by a small Advisory Committee headed by the Agricultural Production commissioner. Besides, there should be a full-time senior officer at the State level with requisite staff to handle the programme. Once the funds are earmarked for this programme, the same should

flow directly to the institutions and not diverted to other schemes.

At the national level, an active operative cell should be established in the ICAR, under a senior officer with necessary staff interested in establishing the Krishi Vigyan Kendras and guiding them. The Central Cell would have a small standing committee. Since agriculture is a State subject, the role of the Central Unit should be more of a monitoring rather than of directing nature in implementing the programme. The cell should ensure that the concept does not degenerate into a rigid organisation. Flexibility is essential to give strength and purposefulness to these institutions. Training of instructors, State-level officers, periodical evaluation of the working of the Centres and offering technical guidance for improving the programme should be a part of the role of the Central Cell. As the Kendras grow in number, the evaluation work could be taken up region-wise.

### staffing pattern

In the staffing pattern, economy should be exercised on administration. Among academic staff, the usual University hierarchy should be avoided, and experienced practical people should be recruited on the staff for specific training needs. There should be two types of staff members, viz. (i) core staff and (ii) those taken on deputation for special purpose, such as specialised practical instruction.

There would ordinarily be very little advantage in having University professors as regular staff members of Krishi Vigyan Kendras. Superior type of academic teachers used to teaching undergraduate and postgraduate courses in universities find it rather difficult to adjust to the standard which would be required for the Krishi Vigyan

**Kendras.** Competent and experienced farmers should also be invited as visiting instructors.

The qualifications prescribed for the staff should not be rigid. To restrict it to graduates only would not be wise. Even diploma-holders or master craftsmen may be recruited for their special skills if they are found competent to teach their skills. The core staff should have adequate practical field experience and should be skilled enough to conduct practical demonstrations themselves. Of course, they should also have sufficient theoretical knowledge to explain to the trainees the principles involved in the practice of operations.

### **voluntary agencies**

Voluntary institutions with a record of good service and competent leadership, keen to participate in the programme of establishing Krishi Vigyan Kendras should be welcomed. They should be free to approach for advice the Central Cell and the State Advisory Committee in organizational matters. Such institutions should function in active collaboration with the State Agricultural Universities and the State Agricultural and Animal Husbandry and fishery departments. They may correspond direct with the Central Cell for resolving their difficulties.

Since flexibility is the key-note of the Krishi Vigyan Kendras concept, they should have the freedom to introduce new ideas and courses in keeping with the general scheme and with the support of the State Government and the Local Advisory Committee. This committee is expected to play an important role in the development of the Kendras.

The Krishi Vigyan Kendras should be accountable to the State Government for using the financial resources granted to them. They should also operate in line with the State's broad

agricultural development programmes. The initiative of voluntary bodies to have the freedom to try innovation in extension education within the available resources should be encouraged.

### **finance**

These proposed innovative institutions, which are expected to catch the imagination of the people, should not be allowed to languish due to paucity of funds. Since these are going to be new institutions, they should receive Central and State assistance directly subject to financial discipline and production of audited accounts. Unless, there is active participatory support by the Centre and the States, these vital institutions of farmers' education expected to contribute substantially to the socio-economic development of the rural community would not be successful.

It is recommended that during the Fifth Plan, the Centre (ICAR) may provide 100 per cent assistance for non-recurring items other than purchases of land and municipal facilities (which are to be provided by the State/Institution) and recurring items like cost of academic staff.

### **broad operational features**

The Krishi Vigyan Kendras are institutions designed to bridge the accomplishment gap between the available technology and action for achieving production. The success of the Kendra would depend upon the quality of its teaching which should win the people's self-confidence for maximising their inherent ability and efforts. They should be located where the potentiality is great and conditions exist or can be created for transferring technology for the economic benefit of the people at the bottom of the society. They are not to make the good people better but the poor ones

good so as to raise the standards of living of the poorest section of the rural population.

The course content of the Krishi Vigyan Kendras may have areas related to plant rearing or animal husbandry and their associated fields. Some of the skills to be imparted would include the use of fertilizers, pesticides, water management recycling of organic wastes and also engineering aspects like repair, maintenance and operation of tractor and implements, pumps, sprayers, tubewells, etc. It may cover enterprises like dairy farming, poultry keeping or bee keeping, etc.

Training will be primarily designed for those persons who are actually engaged in farming or for inservice people who are servicing the farmers in the field. It should reach illiterates as well as school drop-outs but the course content, duration and method of teaching would be adjusted naturally to the level of education of the trainee.

The training offered should not be allowed to become watered down courses of agricultural colleges. They should be directed, and more responsive, to local needs. Some courses would be principally for offering inservice training to intermediate level workers engaged in servicing the farmers. For farmers who can spare time only during the off-season farming, many of the courses could be of "sandwich" variety. It is important they are adopted to local needs and cover many aspects of rural life and not concentrate on one or two only to the exclusion of the others. These institutions should include courses for women, such as nutrition, hygiene kitchen gardening, poultry keeping, home management, child care and rural sanitation, etc. The total duration of courses for the farmers could be of a few months at a stretch or as "sandwich" courses during off-seasons. They may be designed for those working on

land or who intend to return to their farms.

The Kendras would not ordinarily award diplomas or certificates for short courses since holders of these might feel 'qualified' for jobs that might not exist. Such semi-technical education often raises the aspirations and such trained persons clamour for employment. The Kendras must be developed to deal with the real needs of local agricultural community and not add to the ranks of the qualified unemployed.

The Kendras as a part of the training programme development, may also help in organising co-operative societies in villages round the Centre to lend support to the plan of accelerated agricultural development; operating a model instructional farm practising mixed farming with crop and animal enterprises suitable for the area; participation in "Earn while you learn" projects may be introduced as a part of practical training; and cooperation with the respective development departments operating in the neighbouring area involving MFDA, SFDA, DPAP and soil conservation projects; and provide consultancy service to the primary producers.

### **relationship of kendras with the people**

The psychology of farmers should always be taken into consideration while planning the Kendras. A small farmer, who has a small piece of land to eke out a living, does not normally have the confidence to introduce new technology, which needs considerable investment, as he is not sure of the financial returns. He, therefore, feels the need for one or two of his sons to find a place either in Government service or in some industry to supplement the income of the family. To enable the farmers round about the Kendras to gain confidence in agriculture as a complete livelihood, the Centre

could demonstrate to such farmers that the latest agricultural technology was financially sound and that good living could be made from the farm.

With this objective in view, the Kendras would take up specific development projects in the surrounding villages to correlate education and development of agriculture in an area. A survey should be made in each farm, investigating the needs to the area, potential resources, difficulties in farming, possibilities of irrigation and soil conservation measures, the use of fertilizers, pesticides, and crop and animal production planning. The survey may be undertaken by a group of trainees under the guidance of instructors. Plans drawn up may be discussed with the farmers of the area at a short orientation session about a fortnight before the sowing season. In this way, farmers could be made aware of their needs, the potential of the area and how they could adopt new technology and arrange for inputs required. In these sessions, particularly for the illiterate farmers, techniracy could be imparted through audio-visual aids. This type of programme could be taken up seasonwise throughout the year. After a year or two when production increases and there is a profit, the farmers will develop regard for Krishi Vigyan Kendras, as fountain-heads of new knowledge and the trainees will gain confidence and experience, and on return home, they will be able to farm at profit and be gainfully self-employed.

A Krishi Vigyan Kendra farm should be a centre for undertaking adaptive research, theoretical training and demonstration, preferably based on adapted technique of national demonstration scheme and be conducted by the Centre on the farmers' fields. The training should be linked with such a field operation. The neighbouring farmers should be given orientation session season-

wise with the object of educating them in the new technology through agricultural development projects.

### **motivation for beneficiaries**

The people should be attracted to the training programme by involving agencies like the Rural Farm and Home Unit of the All India Radio, panchayats, cooperatives, agricultural extension agencies, etc. The proposed production oriented courses will serve as a motivating factor for the people. The possibility of meeting part of the expenses of training through 'Earn while you learn' scheme may be given wide publicity. The staff of the Centre should always offer free advisory services to their trainees as a part of the follow up programme. The Centre should be made more attractive for the trainees by arranging the supply of some inputs required in small quantities, such as bacterial culture, fish fingerlings, or hiring out equipments like sprayers, dusters, etc. at low rates as a mini agro-service centre. The institutional linkage of the trainees with this temple of learning for solving their farming problems may be one of the motivating factors for drawing them to the centre of training.

Frequent meetings with the farmers of the villages round the Centre will ensure people's active interest in field projects and the success of demonstration in farmers' fields will enhance the reputation of Kendras for attracting more trainees to the different courses offered there.

### **evaluation**

Each institution should undertake self-evaluation every year to judge its own progress, so as to endeavour to improve the performance and correct deficiencies, if any. For this purpose, suitable proforma may be provided by the I.C.A.R. Evaluation should be

carried out every three years by the ICAR/State Government through an independent evaluation agency. The State Government may conduct their own evaluation periodically with a view to improving the programme. When the number of Kendras increases, such evaluation could be made on regional basis.

### **selection and training of the staff**

Initially the selection may be made by a committee consisting of competent and experienced persons who are good judges of men. Krishi Vigyan Kendras should have autonomy in the selection of staff, internal administration and academic programme. The general guidelines for selection may be prescribed by the Central Cell of the ICAR. Selections would have to be made both for core staff and specialized subject teachers.

The following methods for imparting training are suggested :

The core staff should be trained in an informal, practical, and unconventional way. They should be sent out on tour to visit a few selected places of study where good work is being done. At these centres they should take part in organised seminars or workshops and study the methods of instruction both in class-rooms and in fields, as also in organisational set-up. The specialized teachers should be put through the subject-matter training in their respective fields of specialisation. It is proposed that in the beginning two training centres may be organised for subject matter teachers, one in the north and the other in the south. They may preferably be in Agricultural Education departments of the selected agricultural universities, having a good standard of competence in the subject matter and also in teaching methods and approach.

This training should be followed by an orientation programme as far as possible round the Centre itself so as to bring an intimate understanding to the staff of the environment in which they have to work.

### **provision of general education**

It is possible that the bulk of the trainees may be either drop-outs from school or the illiterate farmers. To them some general education should also be imparted to make them not only good farmers but alert citizens as well. The training at the Kendras should also be considered as a continuing education process. It may emphasise health, sanitation, family planning, better living, co-operation and panchayat, operations, farm accounts, etc. both for men and women. In fact, if some literate farmers could be given a special course in farm accounts, it would be very useful for them.

### **criteria for selection of the location of krishi vigan kendras**

For selecting the location of Kendras the undermentioned points may be taken into account :

- a) Presence of devoted workers in the existing institution, with evident potential for good results.
- b) Small farmers' area, hilly area, drought prone area, backward area, etc.
- c) Potential agro-based industrial growth centres.
- d) Agro-climatic region/zones.

### **programme of action**

- a) After circulating the guidelines an expert team may be sent by the I.C.A.R. to the

major States during the next six months with the object of establishing Kendras. The team may not discuss the location but only the general concept, the set up and the types of courses needed for different agro-climatic regions of the States.

- b) In view of the importance of the programme, an Assistant Director General (Krishi Vigyan Kendra) may be recruited immediately and posted at the I.C.A.R. headquarters by April, 1974, to organise the Central Cell and to provide guidance to the States to formulate proposals for the Kendras.
- c) State level committees may be organised by the State Government for this purpose, by April or May, 1974, consisting of Agricultural Production Commissioner or Secretary, Agriculture, representatives from the Departments of Agriculture, Animal Husbandry, Fisheries, Education and Agricultural University, and a few non-officials and the Project Officer of each Kendra.
- d) At the Central level, the proposed cell or a working group or a standing committee on Krishi Vigyan Kendra may be set up immediately.

The Indian Council of Agricultural Research places high hopes on this project. The objective is to raise the economic prosperity of the most neglected sections of the community and the productivity of the country as a whole. The principles and plans outlined in this report have been drawn up with this end in view. The co-operation of the State Governments and the selection of the staff will be the most important factors in achieving this great purpose. The Central Government has the intention of supporting this Scheme with all earnestness and sense of purpose.

# training needs of farm women in haryana

K. Kumar  
Sneh Lata Mago

## INTRODUCTION

Farm and Home are inseparable in India. Our farm women play a great role in decision making process on farm matters, perform many of the farm operations, and undertake many responsibilities concerning care and management of farm animals. This makes it clear that no programme of farmers training can be completed unless it also provides for the training of farm women. Need for this has been felt since long but practically no effort was made in this direction till the launching of the centrally sponsored carefully conceived scheme of "Farmers Training and Education Programme" at the beginning of the Fourth-Five-Year Plan. Since then growing attention is being paid to the training of farm women. This programme is currently under operation in hundred districts, in the different parts of the country, with two lady trainers on the staff at each of the centres.

Training of farm women being a new programme, very

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little experience is available with the planners and the trainers to make this programme need-based and thereby more scientific and effective. This speaks of the greatest necessity of researches on the different facets and processes of farm women training. We have not been able to come across any study on the training of farm women, though there have been a few studies here and there on the farmers' training. Therefore, the authors conducted a study on the training needs of farm women in respect of course content, place of training, timing of training, duration of training and methods of training considering these to be of basic importance in designing suitable training programme for farm women.

## METHOD OF STUDY

The subjects of the study were 102 farm women who came to participate in training courses during Feb-March, 1973 at the Haryana Agricultural University, Hissar and at the State Community Development Training Centre, Nilokheri (Karnal). They came from twenty different villages spread over as many as four (Hissar, Rohtak, Ambala and Karnal) out of seven erstwhile districts of the State representing different cultural and

agro-climatic zones. They also represented almost all the castes and cultural groups of rural Haryana. They were interviewed on a structured schedule consisting of relevant simple questions and a number of rating and ranking scales. For the analysis of the data scale values (using the methods of paired comparison), rank orders, arithmetical mean scores, percentages and frequencies were calculated.

## TRAINING NEEDS

### course content

With a view to identify the relative importance the farm women attached to different subject matter areas knowledge of which is normally needed for bringing improvement at the farm and home; seven broad areas, viz. Crop Farming, Livestock Keeping, Nutrition, Child Care, Arts & Crafts, Clothing and Family Planning were selected. The selection was based on the review of relevant literature, discussion with the rural home development workers and personnel of the staff of Farmer Training Centres in Haryana. The relative importance of these areas given by the farm women, can be seen in Table I. Areas have been ranked in order of their scale values obtained by employing the methods of paired comparisons as described by Edwards (1957).

Nutrition and child care are considered more important than the agricultural areas of 'Livestock keeping' and 'crop farming' which come next. These two areas (livestock keeping & crop farming) have the same scale value and rank, indicating that the farm women considered these

equally important, followed, in order, by 'Clothing', 'Arts & Crafts' and 'Family Planning'.

Knowledge of relative importance attached to these areas, though very useful, cannot by itself be of much guidance in designing a training programme for them. Each of these areas are too big to be covered in all aspects. The respondents were, therefore, asked to rate a number of specific items under each of the broad areas, against a three point continuum, 'should include' 'undecided' and should not include' with 3, 2 and 1 points respectively. These items, classified under different broad areas, are presented in Table II in order of their mean scores.

In all, 42 items were rated. Five of these, viz. seed treatment, fertilizer application, preparation of farm yard manure, sowing, spinning and weaving had their mean scores 1.924, 1.827, 1.579, 1.553 and 1.538 respectively. These figures of mean scores indicate that women are either undecided or have negative preference for these five items. First four of these are important crop farming items and it will be desirable if women, can develop interest and participate at least in first three of these operations. However, till such time women

do not consider these important, only motivational aspects of these may be included in their training content. Kitchen gardening, feeding animals, storage of grains, care of sick animals, maintenance of cattle shed, weeding and hoeing, and harvesting are the specific items in which women are interested and these, therefore, need to be included in their training programme.

There are eight items with mean scores 2.6 or above showing that these are most needed items of training. These include preparation of different milk products, cooking meals, meal planning, fruits and vegetable preservation, removing stain from clothes, repair of clothes, kitchen gardening and milking of animals. Except for two relating to clothing, all other pertain to production and processing of nutritive foods. This supports the earlier finding of nutrition being considered the most important broad area of training. Sood (1970) reported that rural women of Delhi State felt need for information in respect of nutrition and kitchen gardening. The next five specific items with mean scores ranging from 2.503 to 2.517 related mostly to 'child care' except 'feeding of animals' and 'storage of grains'. Thus

here also it is found that 'child care' was accorded place next to 'Nutrition' as a broad area.

Since nutrition and child care are considered more important than agricultural areas it would be desirable to include these in requisite measure, even in the agricultural training of the farm women. This would facilitate and increase their response as the programme would then look and will be more meaningful to them. This is all the more important in case of nutrition, as the specific items under this which get high score values are, 'preservation of fruits and vegetables', preparation of milk products etc. All these are very much related to crop farming and livestock keeping.

### place of training

Women's preferences for different places where trainings can be possibly organised were found out by asking them to rank their village, tehsil, district headquarter and campus of a training institution anywhere in the State, in order of their first, second, third and fourth preferences. The frequencies and percentages of all the four preferences for the four places are furnished in Table III.

Village stands outstandingly the most preferred place for the obvious reason that it is very difficult for women to be away from home leaving husband, children, animals and also farm. Prevailing social values also do not very much favour rural women leaving home and going out of village for training.

The next in order of preference comes the campus of a training institution in the State followed, in order, by tehsil

**Table I**  
**Seven Broad Areas with Scale Values and Ranks**

Sl. No.	Broad Areas	Scale Values	Rank
1.	Nutrition.	1.644	First.
2.	Child Care.	1.212	Second.
3.	Livestock keeping.	0.652	Third.
4.	Crop Farming.	0.652	Third.
5.	Clothing.	0.500	Fourth.
6.	Arts & Crafts.	0.373	Fifth.
7.	Family Planning.	0.000	Sixth.

Table II

Classification of Specific Items under Broad Areas, in order of Preference with their mean scores.

Specific items and broad areas.	Mean score*
<b>(A) Nutrition:</b>	
1. Preparation of milk products.	2.830
2. Cooking meals.	2.828
3. Meal planning.	2.786
4. Fruits and vegetable preservation	2.758
5. Nutrients required by body.	2.393
6. Nutritive value of food stuffs.	2.366
<b>(B) Child Care:</b>	
1. Prevention of child diseases.	2.517
2. Care of sick children.	2.503
3. Training of children.	2.503
4. Pre and post natal care.	2.366
5. Food for children.	2.189
<b>(C) Livestock keeping:</b>	
1. Milking animals.	2.599
2. Feeding animals.	2.517
3. Care of sick animals.	2.455
4. Maintenance of cattle shed.	2.414
<b>(D) Crop Farming:</b>	
1. Kitchen gardening.	2.613
2. Grain storage.	2.515
3. Transplanting.	2.476
4. Weeding and hoeing.	2.255
5. Harvesting.	2.242
6. Seed treatment.	1.924
7. Fertilizer application.	1.827
8. Preparation of farm yard manure.	1.579
9. Sowing.	1.553
<b>(E) Clothing:</b>	
1. Removing stains from clothes.	2.731
2. Renovation of clothes.	2.704
3. Selection of clothes.	2.464
4. Care of sewing machine.	2.364
5. Stitching of clothes.	2.345
<b>(F) Arts &amp; Crafts:</b>	
1. Knitting and embroidery.	2.200
2. Painting clay pitchers.	2.089
3. Toy making.	2.054
4. Spinning & weaving.	1.538
<b>(G) Family Planning:</b>	
1. Techniques of family planning.	2.158
2. Govt. facilities for family planning.	2.138

\*Score values of 3, 2 and 1 indicate should include, 'undecided' and 'should not include' respectively.

(sub-division) and district headquarters. The possible reason for the campus of a training institution being preferred over the tehsil and district headquarters may be the fact that the problem involved in being away from home is equally difficult whether one stays at tehsil/district headquarters or at the campus of a training institution. The latter gets an edge over the other two as it is expected to be better in terms of quality of training and residential and boarding facilities. Thus farm women's trainings need to be organised in their own villages. Alternatively this should be at an established campus of a training institution.

### timing of trainings

Which month(s) of the year will be suitable for training with regard to the convenience of the farm women forms a very important aspect. To know this, women were asked to indicate the Hindi month(s) during which training would be convenient to them. Most of them, 89 out of 102, consider Phalgun (corresponding to Feb-March) as one of the convenient months. The corresponding frequencies for Asadh (June-July), Jaisth (May-June), Magh (Jan-Feb) were 36, 26 and 19 respectively. Frequencies for all the twelve are presented in table IV.

This shows that *Phalgun*, (Feb-March) stands as the most convenient month. The next is *Asadh*. There is, however, a big difference between these two months with their frequencies, being 89 and 36.

Satyanarayana (1970) in his study of training needs of farming community of Hyderabad found that the most preferred month was *Paus* (Dec-Jan). This month is equally less busy season in Haryana. Probably it is the extremely hot and cold climates during summer and winter that prompt women in Haryana to choose *Phalgun* and reject *Paus*. Prasad (1972) in his study in Agra found that suitable months

**Table III.**  
**Preferences for Different Places of Training**

Places	1st	2nd	3rd	4th
Village	56(54.90)	18(17.64)	11(10.78)	17(16.66)
Campus of a training Institution	37(36.27)	17(16.66)	2( 1.95)	30(20.40)
Tehsil Headquarter	5( 4.90)	33(32.34)	32(31.57)	29(28.42)
Distt. Headquarter	4( 3.92)	17(16.66)	53(52.94)	26(25.48)

**Table IV**  
**Convenience Frequencies of Twelve Hindi Month**  
(N = 102)

Sl. No.	Hindi	Corresponding English Month	Convenience Frequency
1.	Paus	December-January	4
2.	Magh	January-February	19
3.	Phalgun	February-March	89
4.	Chaitra	March-April	10
5.	Baisakh	April-May	3
6.	Jaistha	May-June	26
7.	Asadh	June-July	36
8.	Sawan	July-August	16
9.	Bhadon	August-September	4
10.	Asvin	Septemper-October	8
11.	Kartik	October-November	16
12.	Aghan.	November-December	11

for training as perceived by farmers were April, May, September and February.

It seems that, by and large, those months are preferred for training which constitute the least busy agricultural season and are preferably neither very hot nor very cold. For Haryana women, the first two months based on one or both of these two considerations, in order of preference, are *Phalgun* (Feb-March) and *Asadh* (June-July).

#### duration of training

What would be the suitable and convenient duration of a training programme? Farm women's needs on this important aspect also require to be probed, particularly for an institutional programme. The women were, therefore, asked to indicate the convenient duration of a training programme for them by choosing one of the four given durations

of 3 days, 7 days, 14 days and 30 days. The frequencies of women liking these were 11, 31, 49 and 11 respectively. About half of the respondents would like two weeks' and another one third one week's training. A general conclusion can, therefore, be drawn that about 80% of them would find one to two weeks' training convenient. This should be enough. In case a particular course cannot be covered during two weeks, period this should be broken up into two small courses to be conducted in two instalments at two different suitable periods. However, such a contingency should rarely arise.

#### methods of training

Probably the largest single factor determining the quality and effectiveness of a training programme is the methods of instruction it follows. There

have been numerous studies on teaching methods, showing their effectiveness when used singly and in different combinations. These do not, however, reduce the importance of study of training methods liked by a particular kind of participants in a particular type of course. Hence the likings of the respondents for a number of different usual methods of instructions, in a training programme were also studied. The methods studied, included practicals, Movie Films, Demonstrations, Discussions, lectures and supervised reading. The respondents were asked to indicate their degree of liking for a particular method of instruction by saying as to whether they liked it, disliked it, or were indifferent. These choices were given the points of 3, 2 and 1 respectively. Table V presents the mean preference score of each of the training methods in order of the group's preferences.

**Table V**  
**Methods of Training with Their Preference Score**

Method	Mean Preference Score	Corresponding Rank
Practicals.	2.973	I
Educational Films.	2.713	II
Demonstrations.	2.337	III
Group Discussions.	1.934	IV
Lectures.	1.655	V
Supervised Reading.	1.332	VI

Imparting training by engaging the participants in practical exercises get the highest mean score. This was 2.973 against the maximum possible score of 3. This shows that this was liked by all and was considered the best method. This is both very natural and highly desirable. However, in most of the training situations, "practicals" tend to be neglected, as it is difficult to design and organise practical exercises in as many situations as necessary calling for labour,

money and other resources. Farm women, as a group, are either just literate or illiterate and nothing can be more essential than helping them learn new things through 'practicals'.

The method of training coming next to 'practicals' is the use of 'Movie Films'. This too has a very high score of 2.717. Farm women's liking for this also appears to be equally rational. This method has the added advantage of being interesting. Even educational films do have some entertainment value.

The third method in order of preference is the method of "demonstration". The usefulness and effectiveness of demonstration as an educational method are well established facts. Women's liking for this is another desirable situation which should be properly utilised.

None of the remaining three methods in table V have the mean score value of 2 or above. This indicates that the women as a group, either do not like these or are indifferent to these as methods of instruction. Only one of these, that is, method of 'discussion' can be thought to be of some liking to them. Neither lectures nor supervised reading are of liking to rural women. This is as expected.

The central conclusion that can be drawn is that farm women should be imparted training through the use of practicals, educational films, demonstrations, and their different combinations with some group discussion situations. As the films are liked other visuals like film strips, slides etc. can also be used. Staff of the Farmers Training Centres require to be given thorough practical trainings in the use of these methods in actual training situation so that they are able to cover all kinds of training contents through these methods. This also calls for provision of all the needed facility.

The findings show that no good result can be achieved in the field of training of farm women unless the very often and rightly repeated concepts of "learning by doing" and "seeing" is believing" are converted into concretes.

### action implications

This has been a problem oriented study. Based on the findings discussed above following clear cut action implications can be drawn for a Farmer Training Centre or any other institution undertaking trainings of farm women or rural women in general in Haryana. Most of these should also apply to other regions in the country with some modifications based on a rough testing of these needs with the experiences of the local trainers.

1. Haryana farm women are interested in receiving training in kitchen gardening, feeding of animals, storage of grains, care of sick animals, maintenance of cattle shed, transplanting, weeding and hoeing and milking of animals. These should get full emphasis in their training programme.

2. They, however, do not feel the need for training in some of the otherwise important agricultural areas like seed treatment, fertilizer application, and preparation of farm yard manure. It is, therefore, necessary to motivate them in these items to make the strong need for training in these felt by them.

3. Some specific areas related to 'Nutrition' and 'Child Care' like preparation of milk products, cooking of meals, meal planning, fruits and vegetable preservation, prevention of child diseases, care of sick children and training of children, get higher score values than most of the agricultural items. These should, therefore, be integrated into the course content for farm women's training programme designed to promote agricultural development.

4. Other non-agricultural items like removal of stains from clothes and repair of clothes should also be included in farm women's syllabus as these too get very high scores.

5. Farm women's training should be largely non-industrial in their villages. But some of them can happily and conveniently come to an established campus of a training institution for thorough training. Provision should be made for this as well.

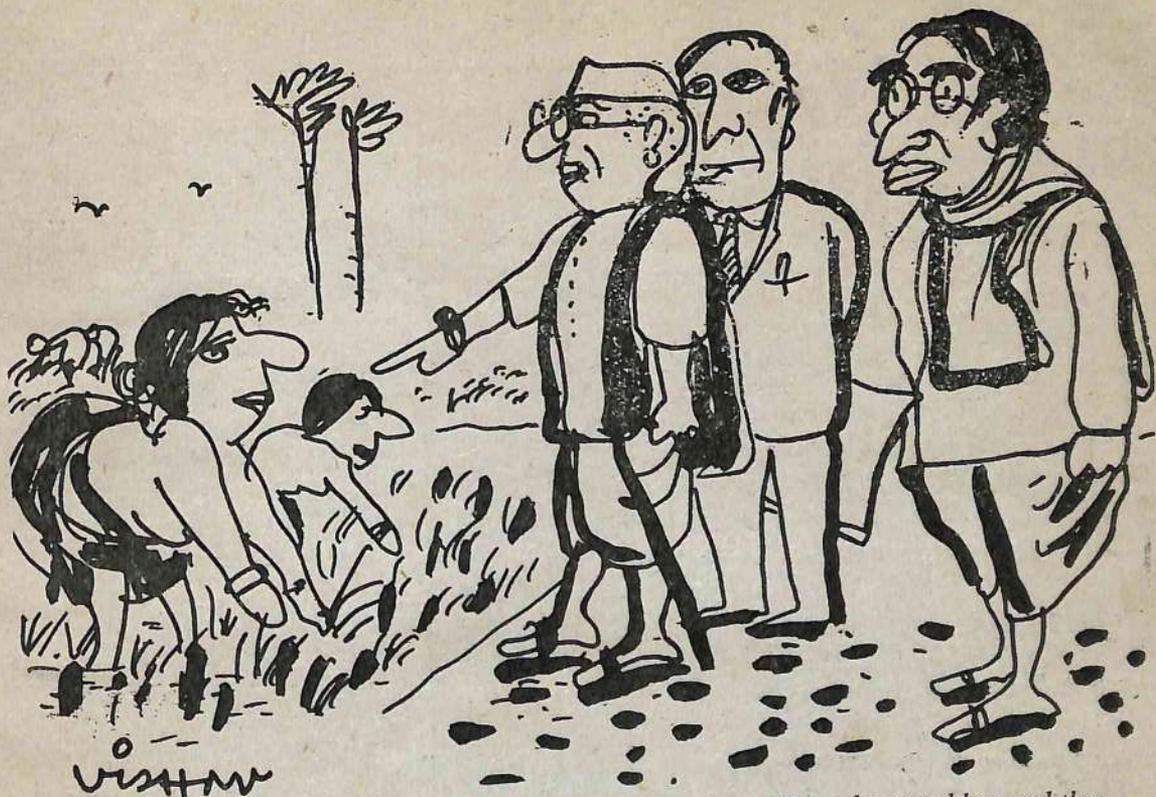
6. All trainings for farm women in Haryana should preferably be organised in February-March (Phalgun) or alternatively in June-July (Asadh).

7. Trainings, particularly institutional, should be of one to two weeks' duration.

8. Farm women need to be imparted training through practicals, film shows, demonstrations and group discussions. Lectures and supervised reading are not liked by them.

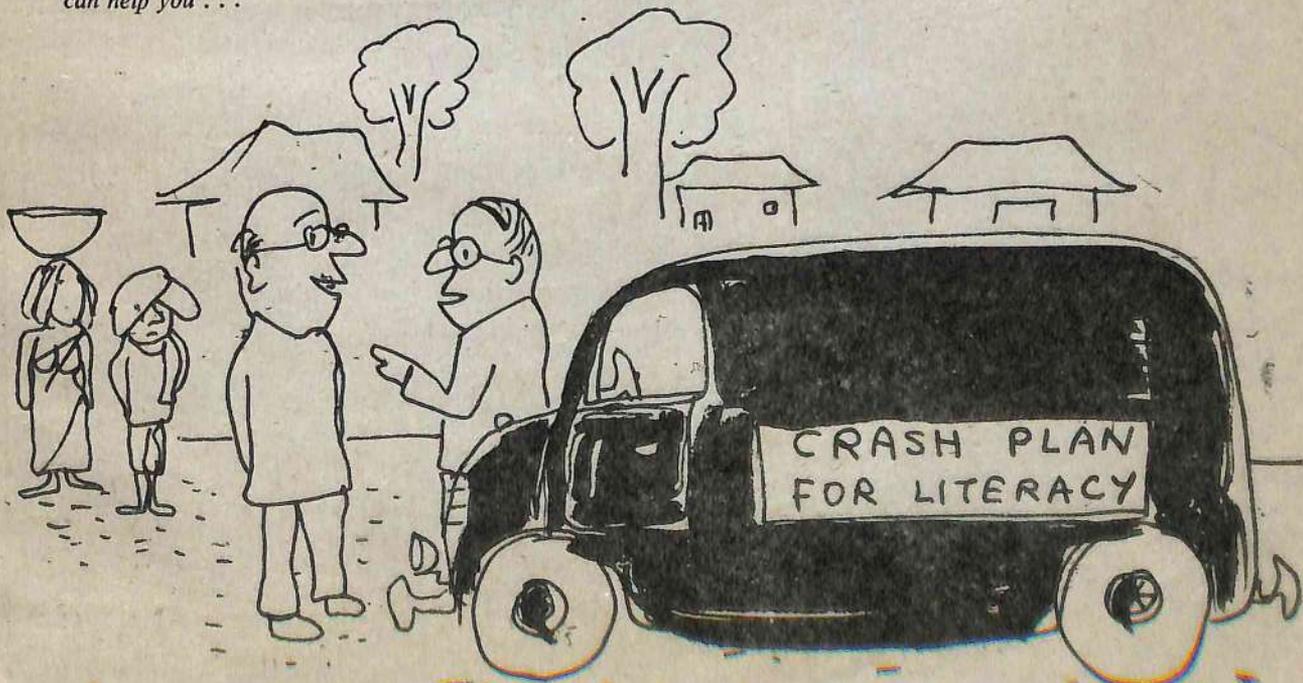
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VISHW

"Some unemployed surgeons who have specialised in transplantation will soon be posted here and they can help you . . ."



VISHW

"We seek merely to teach them to write their names so that they can participate in signature campaigns . . ."

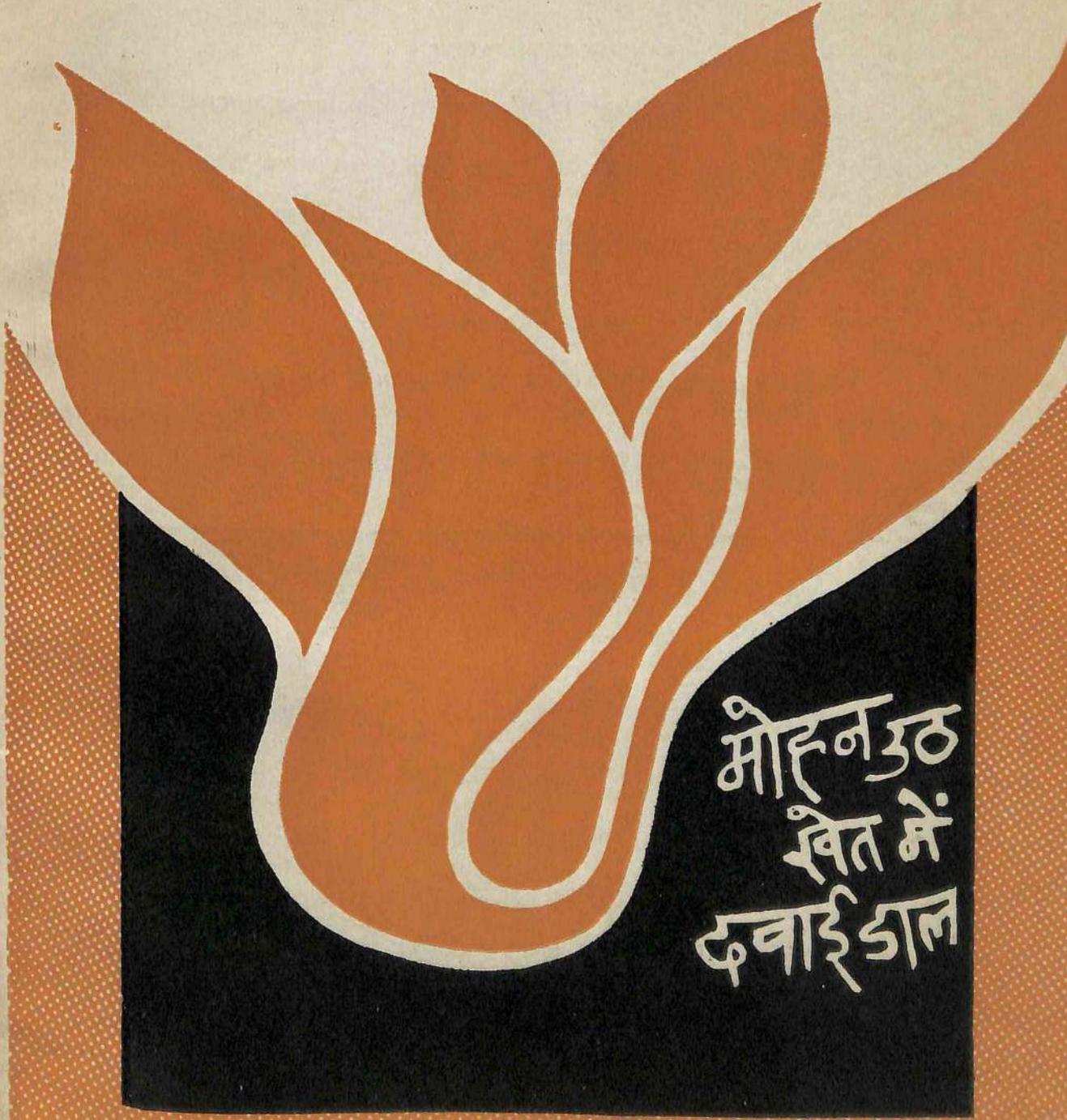
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1. On to Eternity—Vol. III, 1974	Rs. 6.00 \$ 2.00
2. A Literacy Journey—C. Bonanni, 1973	Rs. 8.00 \$ 3.00
3. Adult Education for Women, 1973	Rs. 6.00 \$ 2.00
4. Adult & Community Education : An Indian Experiment—S.R. Mohsini, 1973	Rs. 10.00 \$ 4.00
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7. Manual for Adult Literacy Teachers N.R. Gupta, 1971	Rs. 10.00 \$ 2.75
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मौहिन उठ  
स्वेत में  
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# association of innovative characteristics and adoption of farm practices

Daulat Singh  
S. N. Tripathi

Numerous studies have been made on the effect of socio-economic variables on the adoption of improved farm practices, but a very few investigations have been attempted in India on the association of the characteristics of improved farm innovations and their adoption. Characteristics of an innovation determine the rate as well as the extent of adoption of the practices. A study was, therefore, planned at the U.P. Institute of Agricultural Sciences, Kanpur with the following objectives :

1. To identify and wherever possible quantify the important characteristics of each selected practice which may exert influence on the adoption.
2. To study the relationship between the characteristics of improved farm practices and the extent of adoption of selected improved farm practices.
3. To estimate predictive values of characteristics regarding the adoption of each of the selected practices.

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## methods and material

The present investigation was carried out in two districts of Uttar Pradesh, namely, Kanpur and Etawah. One block from each district was selected randomly. Therefore, two blocks, namely, Kalyanpur (Kanpur) and Maheva (Etawah) were taken for study. From each block, two progressive and the same number of non-progressive villages were finally selected.

The progressive and non-progressive villages were selected on the basis of criteria suggested by Rogers (1964) and Verma (1970). Eight villages were, thus, finally selected on the basis of the small Q-values. For progressive village, it was considered that the village should be located on a pucca road or be at a distance of 2 to 3 kilometres away from the pucca road, the village should have at least one basic/junior/higher secondary school, source of drinking water should be pucca well or hand pipe. The sources of irrigation should be tubewell (Diesel or Electric Engine) and canal. Lanes of the villages are made of bricks and more than 70 per cent of the farmers adopting improved farm practices are taken under study.

The following points were

also taken into account for the selection of the villages.

1. Face—Validity.
2. Medium—Sized villages (Number of farmers being 100 or around it).

## selection of respondents

Stratified random sampling technique was used for the selection of respondents. A list of farming families was prepared for eight villages separately after consulting the *lekhpal*, village level workers working in the area under investigation. The person who was regarded to be the chief decision maker in the family was taken as the respondent. Thus, one hundred such respondents from progressive villages and the same number from non-progressive villages were selected (25 from each village). A proportionate sample where respondents represent the different size of holding, level of education and different caste groups, was taken.

## selection of farm practices

Keeping in view the need and objectives of this study, the selection of 7 improved farm practices was based on the following criteria :

1. The practice must be related to the major crops of the area and be applicable to all the categories of the farmers.
2. The two month period should have lapsed since the introduction of these practices and the present study.
3. There must be variability in the extent of adoption of selected practices as measured on the basis of area covered and the Adoption-Quotient (A.Q.),

## selection of characteristics

In order to identify and isolate the characteristics of improved farm practices the following methods were used :—

1. Technical journals, books and bulletins dealing with the topic of the present study were consulted for collection of relevant information. They were subjected to content analysis.
2. Interviews with staff members, field extension workers and progressive farmers of the selected area were undertaken.

With the help of information gathered from the above mentioned sources, fifteen characteristics were identified. The list containing 15 characteristics was placed before the panel of 30 judges consisting of the professors of the Institute, staff of the department of extension, A.D. Os (Ag) and research workers of the U.P. Institute engaged in the 'Gaon Ki Oar project.

After examining the suggestions of the judges, three characteristics were dropped which were found to be repetitive as well as over-lapping in meaning and content.

Fifty five farmers from 6 randomly selected villages of Kalyanpur block (Kanpur) were interviewed on a "characteristics investigation schedule" which consisted of twelve characteristics. Each characteristic in the schedule was explained in a few short sentences in local dialects as to what it signified. The farmers were asked to give their opinion individually on three point scale 'agree', 'disagree' and 'undecided' against each characteristic. Finally, eight characteristics were selected and there was common agreement (85 per cent and above) among the farmers.

## quantification of variables

The quantification of characteristics (independent variables) was done on the following lines. Except divisibility, which was

rated on a 2-point and a 5-point rating scale was used for the quantification of selected characteristics, namely, cost of innovation, simplicity-complexity, physical compatibility, profitability, communicability, cultural compatibility, and durability. The dependent variable i.e. adoption of each one of the seven selected practices was measured individually by a ratio scale giving a measure which was termed as adoption quotient (A.Q.) as devised by Chattopadhyay (1963) and Mulay and Roy (1965).

## findings

The adoption of each farm practice was calculated by computing adoption scores. The distribution of adoption scores as related to different selected farm practices is given in the table.

It is clear from the table 1 that majority of the farmers were rated under the category of low-adopters in respect of dwarf-wheat, potato, nitrogenous fertilizer, diammonium-phosphate and seed-treatment and in case of compost or F.Y.M. and thresher, the majority of them were under medium category of adopters. It is, thus, evident that most of the farmers fall under low and medium categories of adopters for the practices included in the study.

## association between adoption score and characteristics of farm practices

To measure the individual relationships between the dependent variable (y) and the independent variables (x<sub>1</sub>-x<sub>6</sub> and x<sub>8</sub>) correla-

Table — 1.  
Categories of Adopters Based on the Observed Distribution of Adoption Scores.

Practices	Adopter/non-adopter category	Class range	Raw frequency.	Raw frequency in %	Cumulative raw frequency in percentage
1. Dwarf Wheat	Non adopter	0	9	4.5	4.5
	Low adopter	0.1-30.0	126	63.0	67.5
	Medium adopter	30.1-60.0	55	27.5	95.0
	High adopter.	above-60.0	10	5.0	100.0
2. Potato	Non-adopter	0	4	20.0	20.0
	Low adopter	0.1-30.0	113	56.5	76.5
	Medium adopter	30.1-60.0	44	22.0	98.5
	High adopter.	above 60.0	3	1.5	100.0
3. Nitrogenous Fertilizers	Non adopter	0	5	2.5	2.5
	Low adopter	0.1-30.0	133	66.5	69.0
	Medium adopter	30.1-60.0	60	30.0	99.0
	High adopter.	above 60.0	2	1.0	100.0
4. Diammonium phosphate	Non adopter	0	52	26.0	26.0
	Low adopter	0.1-30.0	123	61.5	87.5
	Medium adopter	30.1-60.0	23	11.5	99.0
	High adopter.	above 60.0	2	1.0	100.0
5. Compost or F.Y.M.	Non adopter	0	0	0.0	0.0
	Low adopter	0.1-30.3	23	11.5	11.5
	Medium adopter	30.1-60.3	104	52.0	63.5
	High adopter.	above 60.0	73	36.5	100.0
6. Seed treatment	Non adopter	0	14	7.0	7.0
	Low adopter	0.1-30.0	107	53.5	60.5
	Medium adopter	30.1-60.0	74	37.0	97.5
	High adopter.	above 60.0	5	2.5	100.0
7. Thresher	Non adopter	0	35	17.5	17.5
	Low adopter	0.1-30.0	67	33.5	51.0
	Medium adopter	30.1-60.0	76	38.0	89.0
	High adopter.	above 60.0	22	11.0	100.0

tion coefficients (r values) were worked out. The results are presented in the following table :—

Out of the eight characteristics mentioned above, the divisibility (x7) was dropped at the time of analysis (correlation) due to methodological limitations. The type of rating scale used in this case was dichotomized type where the respondents had no more choice than to give their responses only on two points, as a result of which there was practically no variation in response in regard to any of the farm practices studied.

It is apparent from the table 2 that the significant and positive correlations were found between Y (dependent variable) and X<sub>1</sub>, X<sub>2</sub>, X<sub>3</sub>, X<sub>4</sub>, X<sub>5</sub>, X<sub>6</sub>, and X<sub>8</sub> (independent variables) at 1 per cent level in respect of four practices, namely, dwarf wheat, potato, nitrogenous fertilizers and diammonium-phosphate. Similarly, in case of thresher, the highly significant correlation was observed between dependent and independent variables except X<sub>3</sub>Y when correlation was significant at 5 per cent level of significance. With regard to compost and seed treatment, correlation coefficients of X<sub>3</sub>Y and X<sub>6</sub>Y were found non-significant. The coefficient of correlation in the case of seed treatment and characteristics for X<sub>2</sub>Y and X<sub>8</sub>Y and in case of compost for X<sub>6</sub>Y were found significant at 5 per cent level.

The significant results clearly indicate that low cost, more simple, suitable, profitable, communicable, more culturally compatible and more durable a practice is perceived by the farmers, higher and quicker is its adoption.

### prediction analysis by multiple correlation

Findings based on the study of independent variables in isolation discussed earlier do not give a comprehensive picture of the effect of independent variables on level of adoption. The different characteristics of the improved farm practices studied do not necessarily act independently. They may interact together to contribute a combined effect on rate and extent of adoption of an innovation. Keeping this fact in view, the multiple correlation was applied to assess the combined effect of characteristics influencing rate and extent of adoption with regard to seven improved farm practices individually.

The criteria employed for the selection of independent variables was to include those variables which showed high association individually with the dependent variable. Such variables were selected where the correlation coefficient was found to be significant at 1 per cent level of significance. The results are presented in the table 3.

The table reveals that the adoption behaviour of farmers with regard to dwarf wheat depended significantly and positively on the three characteristics, viz. cost of innovation, physical compatibility and durability which jointly served to account for 51.49 per cent of the variability in the adoption of dwarf wheat. Similarly, in the case of potato, three characteristics, namely, physical compatibility, profitability and durability jointly served for 69.47 per cent of the variation. For nitrogenous fertilizer, two characteristics i.e. cost of innovation and physical compatibility jointly served for 48.55 per cent of the variation in its adoption. With regards, to diammonium phosphate, two characteristics, viz. cost of innovation and profitability influenced its adoption and 22.52 per cent of the variation was observed due to these characteristics. In respect of compost of F.Y.M. 40.82 per cent of the variation in its adoption was observed due to characteristics, namely, cost of innovation, profitability and durability. For seed treatment, two characteristics i.e. cost of innovation and profitability jointly served for 97 per cent of the variation in its adoption. With regards to thresher, three characteristics, namely, cost of innovation, simplicity-complexity and communicability jointly influenced its adoption with 25 per cent of the variability.

The above results clearly indicate that cost of innovation has been found to be an important determinant of adoption in the case of dwarf wheat, nitrogenous fertilizer, diamophos, compost or F.Y.M., seed treatment and thresher. Similarly, the profitability characteristics was found the second important determinant which affects the rate and extent of adoption of potato, diamophos, compost or F.Y.M. and seed treatment. The physical compatibility influenced the adoption of dwarf wheat, potato and nitrogenous fertilizer, the attribute of durability affects the

Table — 2.

Correlation Between the Dependent Variable (y) and Each One of the Independent Variables (X<sub>1</sub> X<sub>2</sub> ...X<sub>6</sub> and X<sub>8</sub>) for Seven Farm Practices

Correlation coefficients.	Improved farm practices (N=200)						
	Dwarf wheat.	Potato	Nitrogenous fertilisers.	Diammo-phos.	Comps F.Y.M.	Seed treatment	Thresher
X <sub>1</sub>	0.626**	0.642**	0.651**	0.342**	0.487**	0.189**	0.392**
X <sub>2</sub>	0.314**	0.668**	0.577**	0.352**	0.194**	0.175**	0.347**
X <sub>3</sub>	0.513**	0.712**	0.583**	0.432**	0.118NS	0.205**	0.236**
X <sub>4</sub>	0.520**	0.721**	0.424**	0.458**	0.505**	0.257**	0.248**
X <sub>5</sub>	0.506**	0.709**	0.462**	0.418**	0.200**	0.187**	0.342**
X <sub>6</sub>	0.496**	0.705**	0.439**	0.340**	0.171**	0.118NS	0.270**
X <sub>8</sub>	0.513**	0.731**	0.525**	0.252**	0.229**	0.144**	0.172**

\*\* Significant at 1 per cent level. \* Significant at 5 per cent level and NS—Non Significant.

**Table — 3**  
**Coefficients of Partial Regression and Multiple Determination**  
**with Respect to Seven Farm Practices.**

<i>Farm Practices.</i>	<i>Coefficient of partial regression.</i>	<i>Calculated value of 't' for each coefficient.</i>	<i>Coefficient of multiple determination (R<sup>2</sup>)</i>	<i>Significant of the coefficients of multiple determination.</i>
<i>Dwarf-Wheat</i>	b1=+ 9.130	9.253**	0.5149	69.355**
	b3=+ 2.485	3.149**		
	b8=+ 3.566	3.328**		
	$Y = -27.4988 + 9.130X_1 + 2.485X_3 + 3.566X_8$			
<i>Potato.</i>	b3=+ 3.5604	2.199*	0.6947	148.704**
	b4=+ 4.0423	2.451*		
	b8=+ 12.2170	10.118**		
	$Y = -28.5871 + 3.5604X_3 + 4.0423X_4 + 12.2170X_8$			
<i>Nitrogenous fertilizers</i>	b1=+ 8.8332	7.438**	0.4853	92.889**
	b3=+ 5.670	5.328**		
	$Y = -24.7840 + 8.8332X_1 + 5.6700X_3$			
<i>Diammonium phosphate</i>	b1=+ 3.9582	3.374**	0.2252	33.185
	b4=+ 4.9533	6.027**		
	$Y = -15.000 + 3.8582X_1 + 4.9533X_4$			
<i>Compost or F.Y.M.</i>	b1=+ 10.8409	6.308**	0.4082	45.065**
	b4=+ 14.9597	6.832**		
	b8=+ 3.0393	2.684**		
	$Y = -72.5365 + 10.8409X_4 + 14.9597X_1 + 3.0393X_8$			
<i>Seed treatment</i>	b1=+ 4.5655	3.040**	0.9711	10.594**
	b4=+ 4.7405	3.658**		
	$Y = -11.5150 + 4.5655X_1 + 5.7405X_4$			
<i>Thresher.</i>	b1=+ 9.3280	4.859**	0.2537	22.219**
	b2=+ 6.7943	2.945**		
	b5=+ 5.9179	2.573*		
	$Y = -53.2990 + 9.3280X_1 + 6.7943X_2 + 5.9179X_5$			

\*\* Significant at 1 per cent level.

\* Significant at 5 per cent level.

adoption of dwarf wheat, potato and compost or F.Y.M. and simplicity-complexity and communicability characteristics influenced the adoption of thresher.

With these results, the contribution of each one of the important independent variables (characteristics) to the predictability of dependent variable (adoption) is presented below.

*Cost of innovation (X<sub>1</sub>)*—The cost of the innovation explains the variations in the level of adoption of farm practices significantly. With the vast majority of the farmers suffering chronically from credit constraints, the question of cost assumes great importance. The high cost

of an innovation serves as a barrier to its adoption. Hence, it is quite logical to expect that the less costly a practice, the more likely and wide-spread will be its adoption. Similarly, in case of profitability (X<sub>4</sub>), physical compatibility (X<sub>2</sub>), durability (X<sub>3</sub>), simplicity-complexity (X<sub>2</sub>) and communicability (X<sub>5</sub>) characteristics of an innovation were perceived by the farmers as most profitable (economically sound), most suitable, durable) very easy to use and results most visible leading to higher adoption of an innovation.

### conclusions

The important and specific conclusions emerging from this

investigation are that out of eight characteristics of innovations studied, only six, namely cost of innovation, profitability, physical compatibility, communicability, durability and simplicity-complexity provided better drive towards adoption of innovations and farmers perceived them to be more important than the others. The change agent and administrators assigned with the responsibilities of extension education programmes should look for these characteristics while formulating programmes and releasing practices for adoption.

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# national symposium on transfer technology

Daulat Singh  
Baldeo Singh

Unless the new technology developed by agricultural universities/institutes is transferred to the cultivator's field and converted into production, it is a wasteful expenditure. There is, at present, a big gap between what is achieved at the research station of the agricultural institution and what a farmer gets in his fields. Our main task is to narrow the gap by enabling the farmers to achieve the same production as is obtained at the research station. The high yielding varieties of cereals have given rise to the need for the large complex of changes not only in crop culture but also in the system of transfer technology. The existing system of transfer technology need to be reviewed, strength and weaknesses of it will have to be identified and appropriate system developed to communicate new technology to the farmers in the most effective and coordinated manner.

The U.P. Institute of Agri-

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cultural Sciences, Kanpur organized a 'National Symposium on Transfer Technology' on January 7 to 9, 1974 to discuss various facets of problem relating to communication strategy of agricultural information to the farmers. The important recommendations emerged from the symposium are briefly summarized here under :

Based upon the past experiences and efforts made in transfer technology as well as recent researches in the country the system of transfer of agricultural technology may involve three distinct systems viz. (1) research system (2) extension system and (3) users system. The recommendations of the symposium embraced all these three systems operating at agricultural university, State and Central research institutes and state department of agriculture levels.

## research system

(i) Though distinct improvement has been made in the recent years particularly after the initiation of coordinated research project for making agricultural research problem oriented but

not all the researches are always problem oriented and need based. It is, therefore, necessary to identify these problems and needs. This should not only be done on the basis of researches' and scientists' own thinking and suggestions but should also emerge from the working experiences of the extension personnel and farmers.

(ii) *Kisan Melas* being organized by the different universities/colleges/institutes should be utilized for ascertaining technical problems being faced in the field by the extension personnel and farmers. Question raised during scientist farmer discussion should systematically be recorded and passed on the scientist concerned.

(iii) Presence of senior scientists and research workers should be made obligatory in such *melas* particularly during discussion sessions to observe the reaction of the farmers towards the technological recommendations. These scientists should also make periodic visits to the farmers' fields in order to acquaint themselves with the current field problems.

(iv) A large number of training programmes are being organised for farmers and extension personnel by different institutes/universities/colleges etc. Such occasions should also be utilized for ascertaining technical problems for which solutions are not available.

(v) Technical problems referred to the research institutes/universities/colleges or raised at *Charcha Mandals* and during All India Radio Broadcasts by Extension Workers and farmers after necessary screening should

also be passed on to the research system.

(vi) Normally the extension workers at different levels are required to submit periodical progress reports of their work. There should be provision to enlist technical field problems and the field staff should be encouraged for reporting the same.

(vii) The Directorate/Department of Extension Education should conduct periodical surveys in different agro-climatic regions for ascertaining the major technical problems and farmers' reaction towards agricultural innovations and report the same to the Director of research/concerned Heads of Departments.

(viii) There is a need for better representation and greater involvement of extension personnel, farmers, input suppliers and credit agencies in various research committees at different levels.

(ix) While formulating research projects, variation in agro-climatic conditions and farmers typology (such as farmers with normal resources, small and marginal farmers) should be given due consideration so that suitable and competent recommendations could be made.

(x) After the research findings are available they should be discussed in a joint meeting of the concerned scientists extension personnel, input suppliers and credit agencies and then released. Once this has been done, this should be adhered by all concerned in order to avoid contradictions.

## extension system

(i) The Directorate/Department of Extension Education should, with the help of subject matter specialists, develop and publish appropriate extension literature for use by field extension personnel, input supplier and credit agencies as well as farmers. This will need different types and standards of literature in local language.

(ii) Regular training programmes for different levels of extension personnel should be organised before each main crop season. Such training should be of shorter duration and should lay more stress on practical aspects through learning by doing.

(iii) Such training for state, region and district level extension personnel should preferably be organised at the University/Institute headquarters. The extension personnel working at block and village levels should be trained at appropriate centres within the region or district. In this training programme the regional/district subject matter specialists from the University/Institutes should be associated.

(iv) The responsibility for organising the training programme at the University/Institute level will be with the Directorate/Department of Extension Education of the University/Institute whereas the same at the district levels (for extension officers and V.L.Ws) will be with the state departments concerned.

(v) Recently, some of the radio stations have started broadcasting programmes specially for extension workers. The scope of this programmes should

be enlarged and All India Radio be requested to have such programmes on certain fixed days and times through all their regional stations.

(vi) Opportunities for undertaking study tours to research stations, progressive districts, blocks and farms of outstanding farmers as well as visits to *Krishi Vigyan Melas* should be provided to the Extension personnel specially for block and village extension workers.

(vii) In view of large number of village level workers spread throughout the length and breadth of the country and in many cases remote and not easily accessible area, it will not be possible to bring them upto-date about the latest agricultural technology through earlier suggested methods and media. It is, therefore, recommended that correspondence courses for such workers should be started by the Universities/Institutes.

## users system

The acceptance and rejection of farm technology and its rate of spread depends to a great extent on the effectiveness of the extension workers, which, in turn, will depend upon his knowledge of inputs and skill in using selection and using different available extension tools and techniques. It is also a well established fact that different media and channels are suited for different types of technology and farmers. Considering the level of farmers literacy, past experiences and findings of recent communication researches, the following channels of communications have been found suitable :

(a) Demonstration (b) Group Discussions, (c) Use of key communicators, (d) Field trips, (e) Use of Audio Visual Aids like film strips, slides and films, (f) Radio, (g) Extension publications.

But at the same time, the extension workers do not possess adequate skill in the use and proper handling of these channels. It is, therefore, recommended that arrangement should be made for imparting necessary training by the agricultural Universities/Institutes. (i) For conducting demonstrations and group discussions successfully simple extension literatures like folders should be prepared, published and distributed to extension workers by agricultural Universities/Institutes.

(ii) Use of local leaders and key communicators should be extensively made by extension workers for disseminating innovation. Suitable training programme should be arranged for these key communicators in latest technology.

(iii) Production of slides, film strips and film is a specialized job. The responsibility of this, therefore, should rest with the agricultural Universities/Institutes which have such facilities and I.C.A.R., in collaboration with Directorate of Farm Information and Ministry of Information and Broadcasting.

(iv) For proper storage and distribution of films, film strips and slides, film libraries should be established in agricultural Universities/Institutes.

(v) It is no one medium or one set of media that could be

suitable for all kinds of situations, technology and farmers. It is, therefore, recommended that appropriate package of communication aids should be developed and provided.

(vi) Mini communication kits consisting of package—inputs specimen, simple publications and flannel graphs on recommended practices should be provided to field level extension workers.

(vii) The agricultural Universities/Institutes/Colleges should be allotted some broadcasting time, atleast twice a week, for technical broadcast in their respective areas of operation.

(viii) Facilities for studio/field recording should be created at appropriate agricultural Universities/Institutes.

(ix) A large number of farm periodicals are being published in regional languages by individuals or organizations. But they are not getting necessary information support. A list of such periodicals should be maintained by agricultural Universities/Institutes and necessary farm information supply should be made regularly so that they can serve their clients more efficiently with sound technology. There should be proper arrangement to train their editors in agricultural journalism.

(x) The daily news papers should also provide some fixed space for agricultural news and items for general interest.

(xi) Though importance of local institutions like panchayats, cooperatives and schools has always been recognized, but no practical shape has been given to use them for transfer of techno-

logy to local people. The school for example, can very well function as rural information centre where relevant literature, specimen, models etc. could be displayed. Similarly schools having land and qualified agricultural teachers should also be utilized for conducting demonstrations.

## general recommendations

(i) For evolving suitable communication media and strategy, there is a need of collaborative research and experiment to perfect the existing media and methods and to evolve new ones and to find out effectiveness of media individually and in combinations for different situations and types of farmers.

(ii) A large number of agricultural Universities/Institutes/Colleges have been doing research in extension but the communication of research findings of these researches have been very weak because of inadequate mechanism for the same. It is, therefore, recommended that suitable mechanism for the same be evolved and adequate facilities provided by the I.C.A.R. at the Institutes/Universities specially suited for the purpose.

(iii) Although the need for having an Extension Cell for coordinating the extension education activities and processing of research projects at I.C.A.R., has been felt since long and repeatedly emphasized by several seminars and conferences as well as Indian Society of Extension Education, the same has not yet been created. This symposium strongly recommends that I.C.A.R. be requested to take necessary steps towards fulfilment of this long felt need.

# farmers training as an instrument of planned agricultural change

Daulat Singh  
Raj Narain

## introduction

In India, since quite a long time, the importance of the farmers training programme had been realized, as a medium of stuffing the farmers with prevailing agricultural technology and in reducing the time gap between the exploration of a practice and its reach to the farmers with the minimum discolouration, so that they may be able to decide about their farm activities judiciously and implement it successfully. But some observers are not satisfied with its effectiveness, the knowledge input given to the farmers to translate the new technology on their farms under conditions altogether different from those existing at the Insti-

tute level. The farmers training is on way since 1971 at the U.P. Institute of Agricultural Sciences, Kanpur. But no effort was made to evaluate its contribution in bringing about a planned agricultural change in rural community. Hence, the present study was conducted in 1973, in District Kanpur, at the U.P. Institute of Agricultural Sciences, to evaluate the role of farmers training as an instrument for bringing about a desired technological change in the knowledge as reflected in the adoption behaviour of the farmers.

## research methodology

The study is confined to the fifty farmers, trained at the U.P. Institute of Agricultural Sciences, Kanpur. All the farmers were directly interviewed for the purpose, with the help of structured schedules. In order to analyse the impact of training on various

aspects 'before & after' evaluative design was used and to test the significance, test, Chi-square test, Chi-C-square test and percentage etc. were used. By Farmers Training here we mean the Institutional Training of the farmers organised at the U.P. Institute of Agricultural Sciences, Kanpur.

## findings and discussion

An institutional training of the farmers of the Kanpur District was organised at the U.P. Institute of Agricultural Sciences, Kanpur. The knowledge of the participants prior to training was evaluated and training syllabi administered. After five days of training, knowledge test was given and change derived from the before and after data was recorded as the knowledge gained. The percentage change in knowledge in respect of seven technologies included in the syllabus is given in table No. 1.

It is clear from the table No. 1 that increase in the farmers knowledge about improved practices of wheat, paddy, potato and soybean is 155.26 per cent, 151.82 per cent, 106.66 per cent and 337.06 per cent and about plant protection, weed control and soil testing it is 148.98 per cent, 380.00 per cent and 647.22 per cent respectively.

The above analysis reflects that change in farmers' knowledge after training is significant in every case but it is specially remarkable in case of soil testing, weed control, soybean practices for these practices were quite fresh to the farmers and they attended these practices with great attention and took keen

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**Table No. 1**  
**Change in the Knowledge About Improved Practices**  
*N = 50*

Sl. No.	Practices	Means of the knowledge Score			Percentage change	t-value
		Before training	After training	Change		
1.	Wheat	13.68	34.92	21.24	155.26	23.263***
2.	Paddy	6.56	16.52	9.96	151.82	16.064***
3.	Potato	9.30	19.22	9.92	106.66	13.226***
4.	Soybean	0.16	0.70	0.54	337.06	2.454*
5.	Plant Protection measures	9.92	24.70	14.78	148.98	16.049***
6.	Weed control	00.00	3.80	3.80	380.00	14.232***
7.	Soil testing	0.72	5.38	4.66	647.22	8.775***

\*Significant at 5 per cent level

\*\*\*Significant at .1 per cent level.

**Table No. 2**  
**Farmers Knowledge About Multiple Cropping and Rhizobium Culture**  
*N = 50*

Sl. No.	Multiple cropping rotations	Numbers of Farmers Knowing		Percentage increase	X <sup>2</sup> Value	
		Before training	After training			
1.	Maize-Potato-Potato	15	39	24	48	23.188***
2.	Maize-Potato-Wheat	19	46	27	54	32.043***
3.	Maize-Potato-Wheat-Kharbuja	5	39	34	68	59.710***
4.	Moong-Maize-Potato-Wheat	4	39	35	70	5.072*
5.	Rhizobium Culture	5	38	33	66	44.430***

\*Significant.

\*\*\*Significant at .1 per cent level.

**Table No. 3**

Sl. No.	Name of crops	Average holding in hectare	Average area under improved practices in ha.		Average increase in area		t-value
			Before training	After training	hactrage	Percentage	
1.	Wheat	2.83	0.45	1.47	1.02	36.03	9.323***
2.	Paddy	"	00.00	0.34	0.34	12.10	1.36N
3.	Potato	"	00.00	0.95	0.95	33.56	27.14 ***

N-Non significant.

\*\*\*Significant at .1% level.

interest in understanding them.

The table No. 2 shows that increase in the number of farmers knowing about the multiple cropping rotation first, second, third and fourth is 48 per cent, 54 per cent, 68 per cent and 70 per cent respectively and about rhizobium culture it is 66 per cent. Therefore it can be said that most of the trained farmers became conscious of the role of multiple cropping in increasing cropping intensity and about rhizobium culture in increasing pulse crop production.

The change in knowledge should reflect the change in action. It was, hence, assessed if change in knowledge of scientific cultivation of wheat, paddy and potato also resulted in an increase in the area of these crops under recommended varieties. These results are given in table No. 3.

It is clear from the table No. 3 that after training the increase in area under improved practices of wheat and potato is 36.03 per cent and 33.56 per cent respectively. Increase in the area under improved practices of paddy has also been noted but it proved non-significant. Thus, it can be said that area under improved practices of wheat and potato has been significantly increased as farmers got due information during the Institutional Training. Uncontrolled water management and more incidence of diseases and pests causing greater risk against high investment mainly make farmers disheartened in adopting improved practices of Paddy any more.

The effect of training on fertilizer use was also examined and

the results are given in table 4:

It is clear from the table No. 4 that 20 per cent farmers started using urea, 8 per cent superphosphate, 8 per cent Di-ammonium phosphate and 40 per cent murate of potash and 46 per cent farmers left using ammonium sulphate. Thus it can be said that before training farmers were more inclined towards the use of nitrogenous fertilizers but now they are moving towards the use of balanced fertilization.

Yield is a resultant of the factors of production including knowledge input. The results on these aspects are given in table No. 5.

It is clear from the table No 5

that after training the increase in the yield of wheat, paddy and potato is 14.07 Qt./ha. (63.84 per cent), 13.07 Qt./ha. (52.27 per cent) and 54.10 Qt./ha. (42.10 per cent) respectively.

The additional income generated from the adoption of new technologies as a result of farmers training was diverted by some of the farmers for the purchase of consumption goods and some of them invested in the purchase of production outfits. These data are given in table No. 6.

The table shows that 6 per cent of the farmers established tubewells after training. They were told during training that new technology of farming is

irrigation based. Eight per cent trained farmers purchased radio sets after training as they think it necessary to listen to the agricultural programmes punctually, relayed from the broadcasting centre, and 8 per cent of the farmers purchased cycles after training in order to have more frequent contacts with agricultural scientists and other extension workers.

## summary and conclusion

The main purpose of the farmers training is to change the knowledge, skills and behaviour of the farmers for the adoption of new agricultural technologies. This is primarily an adult education programme aiming at increasing agricultural production, through a desired change in the farmers. Two conclusions drawn from this study need to be highlighted. Firstly, institutional short duration training of farmers can be a very effective instrument for bringing about a desired change in the knowledge of the farmers about improved agricultural technologies. And secondly, farmers training resulted in an increase in the area under improved farm practices and also in an increase in the productivity of the crops.

On the whole, it can be said that the farmers training programme plays a vital role and supplements the efforts made by the government for increasing agricultural production. The training appears to be an invisible input but its results are highly visible. There is a need to expand and strengthen this programme for achieving the desired goal of increased agricultural production.

**Table No. 4**  
**Fertilizer Use by the Farmers**

Sl. Name of No. fertilizer	Number of Farmers using		Increase	
	Before training	After training	Number	Percentage
1. Urea	10	20	10	20
2. Ammonium Sulphate	28	5	-23	-46
3. Suphsphosphate	—	4	4	8
4. Di-ammonium phosphate	8	12	4	8
5. Murate of Potash		20	20	40

**Table No. 5**  
**Change in Yield**

Sl. Crops No.	Average yield in Quintals/hactare		Increase in Quintals per/hactare	Percentage
	Before training	After training		
1. Wheat	21.88	35.95	14.07	63.84
2. Paddy	24.81	37.88	13.07	52.27
3. Potato	129.13	183.60	54.10	42.10

**Table No. 6**  
**Change in the Economic Level**

Sl. Items No.	Number of farmers having		Increase	
	Before training	After training	No.	Percentage
1. Tube well	17	20	3	6
2. Radio	5	9	4	8
3. Cycle	9	13	4	8

# influence of convener's training on the nature of working of charcha mandals\*

Y. Katteppa  
K. A. Jalihal

## introduction

Farmers Discussion Groups were first organised in India in 1949 i.e., even before the start of the Farmers' Training Programme. Although the research study conducted by Mathur and Neurath (1959)<sup>1</sup> had indicated striking increase in the knowledge of innovations resulting from Rural Radio Forum discussions, these forums appear not functioning quite satisfactorily in the rural areas. One of the possible reasons for this situation might be lack of training to the organisers or conveners of the Rural Radio Forums. With the advent of the Farmers' Training Programme in 1966-67, work on Rural Radio Forums was also taken up by the Farmers' Training Institutes under the new names of *Charcha Mandals* or

Farmers Discussion Groups. The difference between these *Charcha Mandals* and the old Rural Radio Forums is that, there is a close supervision by the staff of the Farmers Training Institutes over the *Charcha Mandals* and also there is a systematic training programme for the conveners of these *Charcha Mandals* by the Farmers Training Institutes. No research information was, however, available regarding the impact of the training given to the conveners on the working of *Charcha Mandals*. It was expected that such of the *Charcha Mandals* which were guided by trained conveners would work more efficiently as compared to the others having no trained conveners. This research study was, therefore, conducted to test this hypothesis.

## methodology

The study was conducted in 1972 in Bangalore District of Karnataka State which is covered by the Farmers Training Institute located at the University of Agricultural Sciences, Hebbal, Bangalore.

*Population* : Out of 132 *Charcha Mandals* established in Bangalore District at the time of the study, 82 were selected as the population of the study, which

had completed more than one year of working. This criterion was used so as to obtain those *Charcha Mandals* which have reached some type of stability in their nature of working.

*Sample* : Fifty *Charcha Mandals* were selected at random from the 86 *Charcha Mandals* included in population. Out of these 50 *Charcha Mandals*, conveners had been trained in 36 *Charcha Mandals*.

*Variables used in the study* : In order to study the nature of working of *Charcha Mandals*, the following variables were studied:

1. Frequency of meetings conducted in a month;
2. Attendance of members;
3. Two-way communication established by *Charcha Mandals*.

## Methods used for measuring variables.

*1. Frequency of meetings.* A four months period during the year 1971 was selected at random for study of frequency of meetings. The average frequency of meetings conducted in a month was calculated by dividing the total number of meetings conducted by *Charcha Mandals* during the four months by four.

*2. Attendance of members :* The same four months randomly selected as mentioned above were used to measure the attendance of members. The average attendance was calculated by the following formula.

Average Total attendance during the four months per meeting =  $\frac{\text{ring the four months}}{\text{Expected number of meetings, i.e., 32}}$

From the average attendance the percentage of attendance was

\*Part of the thesis submitted to the University of Agricultural Sciences, Bangalore, for the award of Master of Science in Agricultural Extension.

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1. Mathur, J. C., and Neurath, P., 1959, An Indian Experiment in Farm Radio Forums, UNESCO, Paris.

calculated by dividing the Average Attendance by the total number of members enrolled in *Charcha Mandals* and then multiplied by 100.

3. *Two way communication*: The two-way communication was measured by using a rating scale. This was designed using four selected items namely, possession and working of a transistor set, frequency of meetings conducted, average number of letters sent per month to Farmers' Training Centre during the selected four months and the extent of replies received by the Discussion Groups.

### findings

1. *Frequency of meetings conducted in a month*. It is observed from Table 1 that in no *Charcha Mandal* the conduct of meetings was regular. Seventy per cent of the *Charcha Mandals* conducted meetings frequently to occasionally while the remaining 30 per cent had not conducted any meetings, i.e., practically defunct.

Although the association between the frequency of meetings conducted and the type of convener available to *Charcha Mandals* could not be studied by conducting statistical test due to low frequencies in number of cells, the table did reveal some marked difference in the frequency of meetings conducted by the two types of *Charcha Mandals*. The percentage of *Charcha Mandals* with trained conveners having no frequency of meetings conducted was only 17.14 as against 60.00 in case of *Charcha Mandals* having untrained conveners. Similarly 82.86 per cent of the *Charcha Mandals* having trained conveners were

classified under frequent or occasional frequency as against only 40 per cent in case of *Charcha Mandals* having untrained conveners.

In the training given to the conveners it was emphasized that they should take more interest and see that the *Charcha Mandal* meetings are conducted as per the stipulated procedure. This appears to have had at least some impact on the *Charcha*

*Mandals* having trained conveners.

2. *Attendance of Members*. As revealed in Table 2, only 30 per cent of the *Charcha Mandals* had high to medium attendance, (12 per cent high and 18 per cent medium) while the remaining 70 per cent had low or no attendance. Further, 30 per cent of the *Charcha Mandals* had no attendance.

The Association between the

**TABLE 1**  
**Charcha Mandals Classified According to the Frequency of their Meetings and the kind of Conveners Available.**

Frequency of meetings conducted in a month.	Discussion groups having				Total	
	Trained Conveners.		Untrained Conveners.		Number	Percentage
	Number	Percentage	Number	Percentage	Number	Percentage
REGULAR (8 meetings).	0	0	0	0	0	0.00
FREQUENT (4-7 meetings)	3	8.57	1	6.67	4	8.00
OCCASIONAL (Less than 4 meetings)	26	74.29	5	33.33	31	62.00
NEVER (No meetings).	6	17.14	9	60.00	15	30.00
Total	35	100.00	15	100.00	50	100.00

**Table 2**  
**Charcha Mandals Classified According to their Members' Attendance and the kind of Conveners Available**

Name of attendance in meetings	Discussion groups having				Total	
	Trained Conveners.		Untrained Conveners.		Number	Percentage
	Number	Percentage	Number	Percentage	Number	Percentage
HIGH (above 66.6 per cent)	4	11.43	2	13.33	6	12.00
MEDIUM (33.3 to 66.6 per cent)	9	25.72	0	0.00	9	18.00
LOW (below 33.3 per cent).	16	45.71	4	26.67	20	40.00
NO ATTENDANCE (0 per cent).	6	17.14	9	60.00	15	30.00
Total :	35	100.00	15	100.00	50	100.00

$\chi^2$  : 7.4601\*

\* significant at 5 per cent level.

attendance of members and the type of leadership available to the *Charcha Mandals* was worked out by giving the Chi-square test by combining the rows of high and medium attendance categories. This test was found significant at 5 per cent level indicating an association between the attendance of members and the type of conveners available to *Charcha Mandals*. The results further show that as high as 60 per cent of the *Charcha Mandals* having untrained conveners had no attendance at all, while only 17.14 per cent of the *Charcha Mandals* having trained conveners belonged to this category. The percentage of *Charcha Mandals* with trained conveners having high or medium attendance was 37.15 as against only 13.13 in case of untrained conveners.

It could be said that the training given to the conveners has helped in improving the attendance of Members in the *Charcha Mandals*.

### 3. Two-way communication.

As seen from the table 3, less than 50 per cent of the *Charcha*

*Mandals* had established good to satisfactory two-way communication while majority of them, namely, 54 per cent had either fair or poor two-way communication.

The significant chi-square test to the data of the table further indicated that there was an association between the nature of two-way communication established by the *Charcha Mandals* and the type of conveners available to them. The percentage of *Charcha Mandals* with trained conveners having good to satisfactory two-way communication was 54.29 per cent as compared to only 26.67 in case of *Charcha Mandals* having untrained conveners. Similarly, only 17.14 per cent of the *Charcha Mandals* having trained conveners had poor two-way communication as against 60 per cent of the *Charcha Mandals* with untrained conveners.

The training given to the conveners at the Farmers Training Institutes primarily emphasized their role in making the group discussion function effec-

tively by encouraging them to take up responsibilities to identify the problems and enter into correspondence with the agencies. This appears to have had an impact as revealed by the above results.

### analysis

It could be generalised that the training imparted to the conveners of the *Charcha Mandals* by the Farmers Training Institute had a beneficial effect on the working of *Charcha Mandals* resulting in better attendance of members, more frequent meetings by the *Charcha Mandals* and a marked improvement in the two-way communication established by the *Charcha Mandals*. This suggests that the training given to the Conveners was helpful in managing the *Charcha Mandals* in a better way. Thus, there is a need to lay more emphasis on the training of conveners. The results further indicate a need to appoint conveners for the Rural Radio Forums organised in districts not covered by the Farmers Training Institutes and to develop a scheme to train those conveners. This is necessary to make the Rural Radio Forums function more efficiently than at present.

In spite of some beneficial effect due to trained conveners as revealed by this study, there was not much difference between the *Charcha Mandals* having trained conveners and untrained conveners when high attendance and regular frequency of meetings was concerned. This indicates that there are also other factors apart from conveners' training which influence the working of *Charcha Mandals*. These factors have to be identified by further research.

Table 3

**Charcha Mandals Classified According to the Two-way Communication established and the kind of Conveners available.**

Nature of two-way communication established.	Trained Conveners		Untrained Conveners		Total	
	Number	Percentage	Number	Percentage	Number	Percentage
Good (above 9 scores).	2	5.72	0	0	2	4.00
<b>SATISFACTORY</b> (7-9 scores).	17	48.57	4	26.67	21	42.00
<b>FAIR</b> (4-6 scores).	10	28.57	2	13.33	12	24.00
<b>POOR</b> (Below 3 scores).	6	17.14	9	60.00	15	30.00
Total :	35	100.00	15	100.00	50	100.00

$$x^2 = 9.1854^*$$

$$d.f. = 2$$

Significant at 5 per cent level.

# role of farm women in green revolution

S. Mulay

M. R. Lokhande

Jagdish Singh

In India farming is a family enterprise. A great majority of farms are family farms where the greater portion of farm work is done by the farmer and members of his family on unpaid basis. It is generally the wife of the farmer who shares the brunt of the burden in addition to her major assignment as the housewife. But so far it is not known whether she only constitutes an indispensable labour force required on the farm or is also a determining factor in making decisions. The questions whether the rural women are also on march? Are they helping in any way to accelerate the green revolution? These and several other questions are posed when we talk about 'Green Revolution' or changing rural society. Keeping this in view a study was conducted to find out "what role the farm women have in 'Green Revolution'? When the farmers take any decision regarding farming, do they consult the women folk?

## objectives methodology

The specific objectives of the study were to examine (a) farm work done by women folk, and the role of women in (b) cropping pattern, (c) adoption of farm practices, (d) agricultural marketing and (e) agricultural finances.

The study was conducted in villages of Kanjawala block in Delhi Territory. Majority of the population in these villages is of

Hindu Jats. Agriculture is the main source of livelihood, although there has been urban influence on some villages. It is predominantly a cereal growing region and wheat is a staple diet of the people.

## research procedures

Out of 56 villages of the block 6 villages were randomly selected. The women folk of the selected villages were stratified according to the size of land-holding and age. In all, 128 women were finally selected as respondents on the basis of proportionate random sampling.

A pilot study was first carried out to find out the relevant items in relation to role of woman in decision making in farming. On the basis of this study and personal observations, an interview schedule was structured and pretested. In the light of the field observations, necessary modifications were made in the schedule. The selected respondents were interviewed individually with the help of the structured schedule. To elicit objective information the purpose of the study was clearly explained to the selected respondents at the beginning of the interview.

The data, thus collected, were analysed. Simple percentages were worked out and wherever applicable chi-square test was applied.

## women and farm work

It was observed that majority of the women contributed substantially towards the labour force required on the farm throughout the year. Except tilling, seeding and hauling the produce to the market, which are exclusively the jobs of the men, women help carrying out other farm operations. They do weeding, harvesting, threshing, windowing, irrigating and carrying the produce and fodder from the field to home.

About 75 per cent of the total respondents affirmed that they regularly worked on the farm to do various farm operations. The percentage of respondents belonging to nuclear families and working on the farm is still higher, being 85 per cent. Greater farm responsibilities on the women in the nuclear families might be due to the fact that they have to attend to both farm and household jobs. On the other hand, there is a division of labour among the women in the joint families. The nature and type of work that a woman does in a joint family is largely determined by her age and status in the family. Those in joint family who did not work on the farm were mostly in the older age group and usually were mother of the head of the family. It was observed that as the woman advances in age and new young women enter the family, she is spared from the exacting field jobs and she starts attending mostly to household chores. It is mostly the wives in young age, daughters and sisters-in law of

Table 1.  
Extent of Women Working on the Farm

Family pattern.	No. of respondents.	Respondents working on the farm.
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the head of the joint family who go to work on the farm.

The respondents in nuclear families who did not work on the farm were those who either had very small size of land holding or had rented it out on lease. Otherwise there was no indication of any direct relationship between the size of the holding and the women working on the farm. The socio-economic status did not make any difference to them.

### cropping pattern

Determination of cropping pattern involves making decisions as to what crops should be shown in a particular season, in how much area and in what rotation with other crops.

In general, women are quite a decisive factor as far as cropping pattern is concerned. A farmer asks his wife how much she needs for home consumption. She advises, for instance, how much 'desi wheat' should be grown for home consumption and how much new variety should be grown.

Nuclear families were found to be consulted more as compared to joint ones. Most of the women from nuclear family were consulted while half of the women belonging to the joint families were consulted. The women who were consulted were above 35 year of age. Moreover, the relationship with the head of family was found to be a significant factor. The wife of the head of the family and the mother had more important position as compared to other relatives in the family. By and large, it can be said that the women having sufficient maturity due to age or her position in the family exerted influence on cropping pattern. It was also interesting to note that women with dominating personality themselves took initiative and instructed their husbands or sons regarding which crop should be grown and how much area should go under cultivation.

### adoption of improved farm practices

Adoption of new farm technology is instrumental to the phenomenon of Green Revolution. To take the decision of

adoption of new varieties of crops, application of fertilizers, using new implements and insecticides means discontinuing the traditional farm operation and introducing the new one. The question is—are women consulted while making the decision whether to adopt new farm practices or not?

The data indicates that there was a differential adoption pattern. Improved seeds were adopted by nearly 75% respondent, fertilizers and implements by 56% and 50% respectively and plant protection by 32%.

Table 3 indicates that by and large the decisions regarding adoption of new farm technology were male centered. When the head of the family made a decision he mostly involved his brother or grown up sons. Women folk were not much consulted. The reason for this might be their lack of knowledge regarding new technology. As many as 11 per cent of the sample reported that they did not know whether new farm technology was adopted on their farm or not.

Among different categories of respondents, women from the nuclear families had a better knowledge of improved farm practices and did play their role in the adoption process. About 60 per cent of the respondents from nuclear family were consulted as against 39 per cent of their counter-part from joint family. The Chi-square test was applied and it was significant at 5 per cent level.

The table further indicates that the size of holding was not a decisive factor. However, age and especially the relationship with the head of the family were significant factors. Only 20 per cent of the younger age group was consulted. Usually the wife of the head of the family was consulted. If the farmer was young, he consulted his mother. Daughters-in-law were consulted only when they reached the matured

**Table 2.**  
**Role in Cropping Pattern**

Sl. No.	Socio-economic characteristics.	No. of respondents.		Chi-square value.
		Consulted	Not consulted.	
1.	Type of family.			
	i) Nuclear (59)	42	17	8.02**
	ii) Joint (69)	32	37	
2.	Age structure			
	i) Below 25 years (20)	7	13	5.11
	ii) 26-45 Yrs. (59)	36	23	
	iii) Above 45 Yrs (49)			
3.	Size of holding			
	i) Below 5 acres (37)	22	15	4.90
	ii) 6-15 Acres (56)	37	19	
	iii) Above 15 acres (35)	15	20	
4.	Relation with head of Family.			
	i) Mother (19)	13	6	9.03*
	ii) Wife (88)	55	33	
	iii) Daughter-in-law (21)	6	15	

\* = Significant at 0.05 level.

\*\* = Significant at 0.01 level.

age of 25 and above. Younger ones did not play any role at all.

When probed further, it was found that women in general were consulted mostly with regard to the adoption of improved seeds. Since most of the gains produced, particularly in the families with smaller holdings, were consumed locally, the opinion of the women with regard to the cooking quality or otherwise of a particular variety of seeds was generally taken into account. Next to improved seeds, they were also consulted with regard to the adoption of improved agricultural implements and fertilizers. The initial comparatively heavy investment in these items might have urged the farmer to consult women folk also, besides others. Women were consulted the least with regard to the adoption of plant protection measures. This might be because the adoption level of this practice was low and the women did not have knowledge about it.

### agricultural marketing

Following aspects of agricultural marketing were taken into consideration, while studying the women's role :—

- (a) Quantity of grains to be marketed.
- (b) Place of marketing.
- (c) Rates at which the produce should be sold.

It was observed that about two-third of the total respondents interviewed were regularly consulted with regard to agricultural marketing. Among the respondents not consulted in the matter, about fifty-five per cent reported that they had hardly any surplus grain over and above household requirements and as such the question of consulting them in this regard does not arise. It is, therefore, evident that but for the limiting factor of non-availability of surplus grains, there is a tendency in the majority of the families to consult their women-

folk in the matter of marketing of agricultural produce.

It was found that as in other aspects of farming, women in nuclear families were consulted to a greater extent in the sphere of marketing also. The Chi-square

test revealed that family pattern—nuclear or joint—and relationship with the head of the family were significant factors. Women from nuclear families and mother or wife of the head of the family were involved more in making the decision than women from joint

**Table 3**  
**Role in Adoption of Improved Farm Practices**

Sl. No.	Socio-economic characteristics.	No. of respondents.		Chi-Square value.
		Consulted	Not consulted.	
1.	Type of family.			
	i) Nuclear (59)	35	25	**
	ii) Joint (69)	27	42	5.19
2.	Age structure.			
	i) Below 25 years (20)	4	16	**
	ii) 26-45 years (59)	28	31	9.17
	iii) Above 45 years (49)	30	19	
3.	Size of holding.			
	i) Below 5 acres (37)	12	25	2.51
	ii) 6-15 acres (56)	32	24	
	iii) Above 15 acres (35)	25	10	
4.	Relation with head of family.			
	i) Mother (19)	9	10	*
	ii) Wife (88)	48	40	6.48
	iii) Daughter-in-law (21)	5	16	

\* = Significant at 0.05 level.

\*\* = Significant at 0.01 level.

**Table 4**  
**Role in agricultural marketing**

Sl. No.	Socio-economic characteristics	Number of respondents		Chi-square value
		Consulted	Non-consulted	
1.	Type of family			
	(i) Nuclear (59)	48	11	**
	(ii) Joint (69)	36	33	12.00
2.	Age structure			
	(i) Below 25 years (20)	6	14	**
	(ii) 26-45 years (59)	42	17	8.77
	(iii) Above 45 years (49)	36	13	
3.	Size of holding			
	(i) Below 5 acres (37)	22	15	
	(ii) 6-15 Acres (56)	42	14	3.91
	(iii) Above 15 Acres (35)	20	15	
4.	Relation with head of family			
	(i) Mother (19)	12	7	**
	(ii) Wife (88)	65	23	12.41
	(iii) Daughter-in-law (21)	7	14	

\*\* = Significant at 0.01 level.

families and other than mother and wife.

The women were consulted mostly regarding the quantity of grains to be marketed. This consultation is necessitated for having an idea about the quantity of grains to be retained out of the total harvest for household consumption. They were consulted to a much lesser extent about the place and time of marketing and the rates at which the produce should be sold out. The reason might be that there was practically no choice in the place of marketing as most of the grains were carried to a neighbouring market. The rates were decided by the prevailing marketing conditions which fluctuated from time to time. The women had little day to day knowledge about this part of marketing aspect.

### agricultural financing

Purchasing a new piece of land or selling a part of their holding are significant and complex decisions which farmers sometimes have to make in their life time. Moreover many farmers had to think about borrowing

money to meet the farm and home obligations. The respondents were confronted with such hypothetical situations and were asked whether they had ever been consulted or would be consulted in such circumstances or not.

It is interesting to note that greater number of women were consulted regarding this aspect than any other aspect studied so far. We find that 75 per cent of the respondents reported that they would be consulted before important financial transaction are made. Greater consultancy of women in financial transactions might be due to the reason that since these transactions involve the interest of the entire family, the decision maker is anxious to share it with his partner also.

Women in the nuclear families were consulted to a greater extent than those in the joint families. As the age of women advanced they were consulted to a greater extent. More than 89 per cent women were consulted from amongst the age group of above 45 years. Women in the lower age group were not considered to be competent in giving advice in

such matters. The size of holding of the family was not a differentiating factor. About 85 per cent of the wives and 73 per cent of the mothers affirmed their participation in such matters as against 38 per cent in case of daughters-in-law.

### conclusion and implications

The findings help to formulate some generalizations regarding the role of women in green revolution. Firstly, womenfolk constitute an indispensable labour force required on the farm throughout the year and share responsibilities in most of the farm operations. Secondly, women, especially from nuclear families and with initiative, decide how much area should be put under what crops. Thirdly, women have a decisive role regarding the agricultural financing as well as in marketing of agricultural products. And finally, women do not play that important role in decisions regarding adoption of new seeds, fertilizers, implements and pesticides. This might be due to the fact that women had poor knowledge of the improved farm practices.

The findings of this study are of importance while planning programmes for rural women folk. This emphasises that in order that women play a decisive role in accelerating the green revolution, their knowledge regarding new farm technology should be increased. This suggests that not only informal training programmes should be organised for this purpose for women, but functional literacy classes should cover them also. The planned change can be stabilized in rural area only if the skill of the farm women were appreciably improved. The process of Green Revolution will be accelerated only if the farm women, who participate more and more in the decision making process acquainted with new farm practices and other factors responsible for Green Revolution.

Table 5  
Role in agricultural financing

Sl. No. Socio-economic characteristics	Number of respondents		Chi-square value
	Consulted	Not consulted	
<b>1. Type of family</b>			
(i) Nuclear (59)	55	4	**
(ii) Joint (69)	41	28	12.00
<b>2. Age structure</b>			
(i) Below 25 years (20)	9	11	**
(ii) 26-45 Years (59)	43	16	15.46
(iii) Above 45 years (49)	44	5	
<b>3. Size of holding</b>			
(i) Below 5 acres (37)	25	12	
(ii) 6-15 acres (56)	48	8	
(iii) Above 15 acres (35)	23	12	
<b>4. Relation with head of family</b>			
(i) Mother (19)	14	5	**
(ii) Wife (88)	74	14	19.31
(iii) Daughter-in-law (21)	8	13	

\*\* Significant at 0.01 level.

# literacy and adoption of improved farm practices

Devesh Kishore  
S.J. Rai

## sample and method of study

An attempt has been made here to find the role of literacy in adoption of improved farm practices with the help of a regional study.

Soraon Block of Allahabad district was purposely selected for the study. In this block, two villages—Tiwariipur Lahara and Bhandri were selected randomly to form a cluster sample of cultivators.

For the selection of sample farmers, a list of all the farmers in two villages was made. Of the total of 325 farmers, 100 farmers were selected at random with the help of random number table. The selected farmers were interviewed with the help of structured schedules, designed for the study. The study was conducted in December 1973.

## adoption of high yielding seeds

The distribution of sample

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farmers according to different group of literacy for the adopters and non-adopters of high yielding seeds is given in Table 1.

It is evident from the above table that out of 100 farmers, only 31 were the adopters of high yielding seeds whereas 69 were the non-adopters. The interesting point to be seen in the table is that in illiterate group, the adopters and non-adopters were in the ratio of 1:5.25 whereas in the last group (high school and above), the ratio was 4:1. Therefore, it can be inferred that the adoption of high yielding seeds increases as literacy percentage goes up.

The above fact was also tested with the help of statistical analysis. For this purpose, the literacy index of adopters and non-adopters was calculated separately. Only the literacy of cultivator-cum-manager of farm was taken into account at the time of calculating literacy index.

The index was prepared using the following scores :

Illiterate	...	0
Can sign	...	1
Upto Primary	...	2
Upto Middle School	...	5
Upto High School	...	8
Above High School	...	12

The averages of literacy index

for adopters and non-adopters were as follows :

Adopters	...	4.6
Non-adopters	...	1.3

The difference of these two means was tested and was found to be significant at 1 percent probability level (calculated value of 't' was 8.5). Thus, it can be concluded that literacy has positive effect on the adoption of high yielding seeds.

## adoption of improved agricultural implements

The table 2 represents the distribution of adopters and non-adopters of improved agricultural implements according to literacy groups.

The preceding table shows that out of 100 sample farmers, only 34 per cent were adopters of improved agricultural implements. The pattern of adoption was same as it was found in table 1 i.e. literacy and adopting of high yielding seed. The adopters and non-adopters were in the ratio of 1:4.5 in illiterate group whereas they were in the ratio of 4:1 in the last group. Here again statistical test was applied for testing the literacy index of the two groups adopters and difference in the average was found to be statistically significant at 1 per cent. The averages and 't' value were as follows :—

Average of adopters	...	4.4
Average of non-adopters	...	1.2
Calculated 't' value	...	5.3

Thus, it can be concluded that literacy has a positive role on the adoption of improved agricultural implements.

**Table 1**  
**Literacy and Adoption of High Yielding Seeds**

<i>Level of Literacy</i>	<i>Total</i>	<i>Adopters</i>	<i>Non-adopters</i>
Illiterate	50 (100)	8 (16)	42 (84)
Can sign	10 (100)	2 (20)	8 (80)
Upto Primary	13 (100)	4 (31)	9 (69)
Upto Middle School	12 (100)	6 (50)	6 (50)
Upto High School	10 (100)	7 (70)	3 (30)
Above High School	5 (100)	4 (80)	1 (20)
<b>Total</b>	<b>100 (100)</b>	<b>31 (31)</b>	<b>69 (69)</b>

(Figures in parentheses indicate percentage of adopters and non-adopters to total number of farmers).

**Table 2**  
**Literacy in relation to adoption of improved agricultural implements.**

<i>Level of literacy</i>	<i>Total</i>	<i>Adopters</i>	<i>Non-adopters</i>
Illiterate	50 (100)	9 (18)	41 (82)
Can sign	10 (100)	2 (20)	8 (80)
Upto Primary	13 (100)	5 (38)	8 (62)
Upto Middle School	12 (100)	7 (58)	5 (42)
Upto High School	10 (100)	7 (70)	3 (30)
Above High School	5 (100)	4 (80)	1 (20)
<b>Total</b>	<b>100 (100)</b>	<b>34 (34)</b>	<b>66 (66)</b>

(Figures in parentheses indicate percentage of adopters and non-adopters to total number of farmers).

**Table 3**  
**Relationship between literacy and adoption of fertilizer.**

<i>Level of Literacy</i>	<i>Total</i>	<i>Adopters</i>	<i>Non-adopters</i>
Illiterate	50 (100)	11 (22)	39 (78)
Can sign	10 (100)	3 (30)	7 (70)
Upto Primary	13 (100)	6 (46)	7 (54)
Upto Middle School	12 (100)	7 (58)	5 (42)
Upto High School	10 (100)	7 (70)	3 (30)
Above High School	5 (100)	4 (80)	1 (20)

(Figures in parentheses indicate percentage of adopters and non-adopters to total number of farmers).

**Table 4**  
**Relationship between literacy and adoption of plant protection measures.**

<i>Level of Literacy</i>	<i>Total</i>	<i>Adopters</i>	<i>Non-adopters</i>
Illiterate	50 (100)	1 (2)	49 (98)
Can sign	10 (100)	2 (20)	8 (80)
Upto Primary	13 (100)	5 (39)	8 (61)
Upto Middle School	12 (100)	5 (42)	7 (58)
Upto High School	10 (100)	3 (50)	5 (50)
Above High School	5 (100)	5 (60)	2 (40)
<b>Total</b>	<b>100 (100)</b>	<b>21 (21)</b>	<b>79 (79)</b>

(Figures in parentheses indicate percentage of adopters and non-adopters to total number of farmers).

## adoption of fertilizers

Fertilizer is one of the essential inputs in increasing agricultural production. The green revolution can only be a success, when the fertilizers are properly used with the adoption of high yielding seeds. The use of fertilizer also increases with the literacy of farmers, which can be verified from table 3.

From the above table, it is clear that only 38 percent of farmers were using fertilizers. The adopters and non-adopters were in the ratio of 1:3.5 in illiterate group whereas the ratio of these groups was 4:1 in the last group of literacy.

The literacy index was calculated on the basis of scores given for the adopters of high yielding seed. The average literacy was as follows :

Average of adopters ... 4.1  
Average of non-adopters ... 1.3

The difference between averages of two groups was tested statistically and was found significant at 1 per cent probability level, giving a clear indication that fertilizer application increases with the increase in literacy of farmers.

## adoption of plant protection measures

The adoption of plant protection measures by farmers in India is very low in the sense that every year 20 per cent of agricultural produce is spoiled by pests and diseases. This can be checked

only when the plant protection facilities are sufficiently provided to the farmers and they are motivated to adopt more plant protection measures.

It can be seen from the Table-4 that only 21 percent farmers were adopters of plant protection measures. In illiterate group only 2 per cent of the farmers used plant protection measures. The ratio between adopters and non-adopters in the first group was 1:49 whereas in the last group the ratio of adopters and non-adopters was 3:2. The literacy index was again calculated on the basis of same score as used for adoption of high yielding seeds. The averages of the two groups were as follows :—

Average of adopters. ...	5.3
Average of non-adopters ...	1.5

The difference of the two averages was highly significant ('t' value—17.94) indicating that literacy has positive bearing on the adoption of plant protection measures by farmers.

### conclusion

From the foregoing discussion, it can be safely concluded that literacy has positive effect on the final acceptance of improved technologies in agriculture such as adoption of high yielding seeds, improved agricultural implements, fertilizers and plant protection measures. Since long-term development of agriculture can be obtained only by the increase in national efficiency, and national efficiency, can only be achieved by education and training of farmers, the need to have better educational and training facilities in rural areas cannot be over-emphasised.

# adoption of high-yielding varieties as a function of assured irrigation, holding size and education

M.M.P. Akhouri  
R.P. Singh

The most important among the factors which have contributed to the current transformation of Indian agriculture is the adoption of high-yielding varieties in different crops, particularly wheat. It is a matter of common knowledge and experience that the extent of adoption of an agricultural innovation, and for that matter any innovation, depends on the combination of multitude of factors. The research findings with regard to the factors affecting adoption of high-yielding varieties which are a recent introduction needs to be further confirmed or repudiated by empirical evidences from different agro-climatic regions in the country. This idea prompted the choice for a general survey to study adoption as a function of assured irrigation, holding size and education of farmers in Haryana State.

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### methodology

The district of Hissar in Haryana formed the locale for the survey which was made during the course of village extension practical work for which the under graduate students of final year were camped in 12 villages. The data were collected by the students from a total of 350 tubewell-owning farmers through a structured schedule.

The survey was made in relation to the high-yielding varieties of wheat and bajra and for calculating the extent of their adoption, the total area under tubewell irrigation was taken into consideration. The formula used to compute the extent of adoption was as follows :

Total area under the high-yielding varieties of wheat and bajra

Extent of adoption = ——— X 100

Twice the area under tubewell irrigation.

### findings

From the analysis of data it

**Table 1**  
**Analysis of Variance of Adoption Scores of Farmers Classified**  
**by Tubewell Installation Period, Holding size and Education**

<i>Basis of classification.</i>	<i>Source.</i>	<i>Degree of freedom.</i>	<i>Sum of squares.</i>	<i>Mean squares.</i>	<i>'F' ratio</i>
Tubewell Installation period	Between groups	3	9764.50	3254.83	3.27*
	Within groups.	346	344403.97	995.39	
Holding size	Between groups	3	11161.02	3720.34	3.75*
	Within groups.	346	343007.49	991.35	
Education	Between groups.	3	5239.80	1746.60	1.40
	Within groups.	346	348928.66	1008.46	

\* Significant at 5% level.

**Table 2**  
**Difference among the Mean Adoption Scores of Farmers classified by**  
**Tubewell Installation Period and Holding Size.**

<i>Variable.</i>	<i>Groups.</i>			
Tube-well installation period.	Upto 2 yrs.	2 to 4 yrs	4 to 6 yrs	6 years
	71.78	76.28	79.02	89.20
Holding size.	Upto 10 acres.	10 to 30 acres.	30 to 60 acres.	60 acres.
	66.74	76.51	77.64	91.15

is revealed that 71 per cent of the respondents were adopting high-yielding varieties of wheat and bajra and the overall extent of adoption was 75.77 per cent with standard deviation 31.8.

In order to determine the variation in the extent of adoption of high-yielding wheat and bajra varieties due to tubewell, age, size of holding and education, the individual adoption scores were subjected to analysis of variance and the results obtained are presented in Table I.

It is evident from Table I that the different respondent groups based on education did not differ significantly from each other in respect of their adoption scores. In other words, there was no significant variation in adoption scores of the respondents due to education. However, the other

two variables, that is, tubewell installation period and holding size did cause variation in their adoption scores.

Following significant 'F' values in case of tubewell installation period and holding size, 't' tests were applied to know as to how many inter-pair difference between adoption means were significant in each case. The differences were statistically tested at the 5 per cent level of significance.

The test of significance of the difference between each pair of means of adoption scores of different respondent groups based on tubewell installation period and holding size is given in table 2.

It appears from Table 2 that in respect of adoption of high-

yielding varieties of wheat and bajra, the farmers who had been having tube-well irrigation for six years or less differed significantly from those having tube-wells for more than six years. To make it more explicit, it can be said that the latter group of farmers had significantly higher mean adoption scores than the former.

As regards size of holding, it is revealed from Table 2 that the farming groups having more than 30 to 60 acres or more than 60 acres of land had significantly higher mean adoption scores than those having upto 30 acres of land.

Thus, it can be inferred from the foregoing analysis that the farmers having tube-well irrigation for a comparatively much longer period and those having a much larger size of holding were high adopters of high-yielding wheat and bajra varieties.

### conclusion

The findings of this study empirically conforms the general expectations. The major implications of these findings are that the farmers with comparatively much larger size of holdings and assured irrigation facilities for a comparatively much longer period being high adopters may be mobilized to serve as co-workers and co-operators of extension workers in speeding up the process of adoption of high-yielding varieties in different crops leading to maximisation of agricultural production. However, the findings of this study need to be further confirmed by similar investigations in different situations to give them higher level of generality.

# sources of information, motivation and discouragement in relation to the adult literacy classes

J. S. Bhandari

R. C. Mehta

Initial information through the recognised channels of communication and interpersonal group relations forms the basic condition for adults to become aware of the literacy classes and to motivate them to join the classes. There are several factors which influence these individuals to attain the literacy standards. These factors may be—the nature of the class, the sources of influence, class room environment, teacher's characteristics, personal likings and several other social, economic and political factors. We have examined some of the above factors in the present paper.

## methodology

The Study has been conducted in Udaipur District of Rajasthan. The nature of the classes in which participation was studied re-

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presented the traditional literacy and the modern functional literacy classes being run simultaneously under the auspices of Seva Mandir—a voluntary organisation devoted to adult education.

20 literacy and 12 functional literacy centres with an average enrolment of 15-20 persons constituted the sample following the procedures of statistical sampling. At each centre three persisters and three dropouts were selected. Data were collected through structured interview technique. In case of multiple choice questions, the percentages were calculated on the basis of total frequencies. The chi-square test was applied and coefficient of contingencies value were calculated to confirm the relationship. We have operationalized certain concepts to delineate their attributes and clarify the meaning.

*Persistency*: Any adult who joined the Literacy or Functional Literacy class and continued to participate in it for a period of at least three months with a minimum of 50 per cent attend-

ance was considered to be a persister. The phenomenon of his persistence in the class is described as persistency.

*Dropout*: Refers to the phenomenon of an adult who joined the class and may have continued to attend it for a period of five days but did not continue in the course for a period of three months or more.

*Literacy*: The term 'Literacy' or 'Adult Literacy' (unless used to connote a wider meaning to include literacy and functional literacy) refers to acquisition of three 'R's', that is, simple reading, writing, and arithmetic and seeks to provide an adult access to written communication.

*Functional Literacy*: It is literacy integrated with the occupation of the learner and directly related to the process of his development. It aims at comprehensive training of the illiterate adult which is related to his roles both as a producer and a citizen.

## findings of the study

The sources of influence in

joining the literacy and functional literacy classes as perceived by the persisters and dropout are given in table below :

As shown in the Table the calculated value of Chi-Square is higher than the tabulated value at .05 level of significance and at 6 and 8 degrees of freedom in Literacy and Functional Literacy classes respectively. This indicates that there exists relationship between reasons of influence to join the Literacy or Functional Literacy class with completion or non-completion of the course. The correlation of contingency ( $C=0.1852$ ) and ( $C=0.5223$ ) confirms the relationship between the two.

Further, 43.13 and 48.08 per cent persisters were found to be influenced by the factor of self-motivation in Literacy Classes and Functional Literacy Classes respectively. While Literacy Class School Teacher was found to be equally important for persistency for Functional Literacy Class, relatives were the next source of persistency.

For dropouts, an interesting result was found that the school teacher could not create interest among the pupils and as such a large number of dropouts were due to the poor impact of the teachers (as they could not motivate them to continue). This was the major factor for dropouts.

### source of discouragement in joining the class

The influence of immediate social groups on persistency and dropout of adults in literacy and functional literacy classes is given in the following table :

As shown in the Table above the calculated value in case of Literacy is more than the tabulated value at .05 level of significance and at 3 degrees of freedom, which indicates that there exists relationship between participants being influenced by the immediate social group with regard

**Table**  
**Distribution of Persisters and Dropouts by Sources of Influence in Joining the Literacy and Functional Literacy Classes**

Influencing factors	Literacy Classes			Functional Literacy Classes		
	Persisters	Dropouts	Total	Persisters	Dropouts	Total
Self motivated.	47 (43.12)	39 (32.33)	86 (37.39)	25 (48.08)	21 (36.21)	46 (41.82)
School Teacher.	41 (37.61)	47 (38.84)	38 (38.26)	2 (3.85)	23 (39.65)	25 (22.73)
Seva Mandir.	13 (11.93)	14 (11.57)	27 (11.74)	2 (3.85)	1 (1.72)	3 (2.73)
Friends.	1 (0.92)	4 (3.31)	5 (2.71)	17 (32.69)	1 (1.72)	18 (16.36)
Relations.	4 (3.67)	6 (4.96)	10 (4.35)	2 (3.85)	2 (3.85)	4 (3.64)
Sarpanch.	2 (1.83)	4 (3.31)	6 (2.61)	1 (1.92)	4 (6.90)	5 (4.55)
Gram Sevak.	1 (0.92)	7 (5.78)	8 (3.48)	0 (0.00)	4 (6.90)	4 (3.64)
Neighbours.	0 (0.00)	0 (0.00)	0 (0.00)	3 (5.77)	1 (1.72)	4 (3.64)
Panchayat Samati staff.	0 (0.00)	0 (0.00)	0 (0.00)	0 (0.00)	1 (1.72)	1 (0.91)
Total ...	109	121	230	52	58	110
	Chi Sq.=40.1346 at 6 d.f. C= 0.5223			Chi sq.=7.9516 at 8 d.f.		

Figures in the bracket represent percentage.

**Table**  
**Distribution of Responses of Persisters and Dropouts on Sources of Discouragement from Literacy and Functional Literacy Classes**

Persons who discourage	Literacy Classes			Functional Literacy Classes		
	Persisters.	Dropouts	Total	Persisters	Dropouts	Total
Neighbours.	3 (4.61)	11 (14.67)	14 (10.00)	3 (9.37)	5 (11.63)	8 (10.67)
Friends.	1 (1.54)	9 (12.00)	10 (7.14)	1 (3.13)	3 (6.98)	4 (5.33)
Relatives.	3 (4.61)	14 (18.67)	17 (12.14)	2 (6.25)	7 (16.28)	9 (12.00)
Nobody	58 (89.24)	41 (54.66)	99 (70.22)	26 (70.27)	28 (65.11)	54 (72.00)
Total ...	65	75	140	32	43	75
	Chi-square=26.2501 at 3 degrees of freedom C=0.4330			Chi-square=6.4613 Non-significant at 3 degrees of freedom.		

Figures in the bracket represent percentage.

to persisters and dropouts in Literacy Classes. The correlation of contingency ( $C=0.4330$ ) confirms this relationship whereas in case of Functional Literacy Classes the Chi-square value is non-significant which shows that no relationship exists between the persisters and dropouts with respect to influence by their immediate social group.

It appears that the social group has not acted as a deterrent for the participants in joining or discontinuing the classes. Only to a small extent the relatives were reported to have influenced the participants in relation to the phenomenon of dropout.

### aspects of discouragement from attending the classes

The responses on the reasons of discouragement as ascribed by the immediate group and stated

by persisters and dropouts in literacy and functional literacy classes are given below :

### implications

It is observed that there exists a marked difference between the sources of influence and persistency and dropout both in case of literacy as well as in case of Functional Literacy classes. It is further noted that self motivation is the most important factor for persistence in the class. The importance of a good school teacher in literacy classes and of relatives in functional literacy classes come next in order of importance. Also if the teacher could not hold the interest of the participants, they dropped out of the class. This is more so in case of Functional Literacy classes, probably because of expectations of the pupils with respect to functional content of

the course. The difference is also significant for the sources of discouragement for attending and discontinuance in case of literacy classes. It appears that social groups have not acted as a deterrent for the participants in attending the class. Only to some extent the relatives seem to have influenced the phenomenon of dropout.

Secondly, there is evidence to suggest that literacy drive should be channelised through the social, economic, political and other local organisations in the villages because of the close interpersonal relationship of the members of these organisations are also a significant influence to participate in these classes.

Thirdly, a sound mechanism to provide incentive and reward both in terms of tangible and intangible forms may be built in within the programme plan. Recognition of adults who attained literacy, utilization of their newly required skill in consequential increase in agricultural production and follow up programmes should be observed and merit certificates and financial incentives may be given.

Fourthly, the requirements of the adult class with respect to physical class room facilities should be in line with the learning speed and ability of the audience, their motivation, background and sentiments.

And finally, research attention must be diverted towards developing interesting programmes, locale-specific curricula, and locally adoptable teaching methods to motivate the participants and prospective adults in order to sustain their interest.

**Table**  
**Perceived Reasons of Discouragement from Attending the Literacy Classes and Functional Literacy Classes**

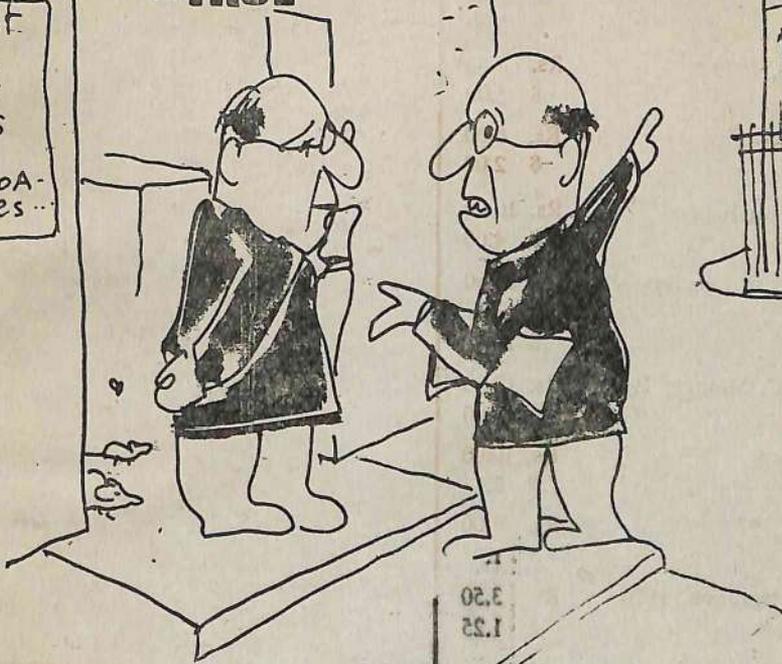
<i>Factors responsible for not joining the Adult Literacy Classes.</i>	<i>Literacy Classes</i>			<i>Functional Literacy Classes</i>		
	<i>Persisters</i>	<i>Dropouts</i>	<i>Total</i>	<i>Persisters</i>	<i>Dropouts</i>	<i>Total</i>
School is for children.	2 (33.33)	13 (34.21)	15 (34.09)	1 (14.28)	4 (23.55)	5 (20.83)
It is useless or serves no purpose.	2 (33.33)	12 (31.58)	14 (31.82)	3 (42.86)	5 (29.41)	8 (33.33)
It is time-consuming.	2 (33.33)	7 (18.42)	9 (20.45)	2 (28.57)	4 (23.53)	6 (25.00)
It leads to family disturbance.	0 (0.00)	3 (7.89)	3 (6.82)	0 (0.00)	3 (17.65)	3 (12.50)
They are ridiculed.	0 (0.00)	3 (7.89)	3 (6.82)	0 (0.00)	1 (5.88)	1 (4.17)
The teacher was not good.	0 (0.00)	0 (0.00)	0 (0.00)	1 (14.28)	0 (0.00)	1 (4.17)
<b>Total ...</b>	<b>6</b>	<b>38</b>	<b>44</b>	<b>7</b>	<b>17</b>	<b>24</b>

(The figures in the bracket represent percentage)

# PEST CONTROL

Pesticides

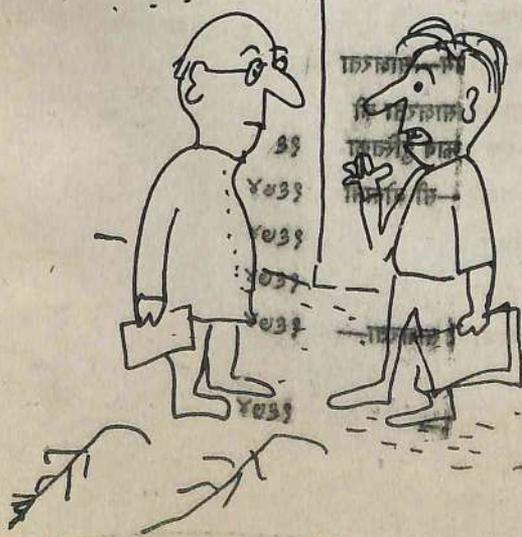
against  
BUGS  
ANTS  
RATS  
&  
COCKROACHES



"Have you nothing to stop them making pests of themselves ..."

# Agricultural University

experimental plot 306



"We were so preoccupied with cultivating values that our crops got overlooked ..."

## IAEA Publications

1. On to Eternity—Vol. III, 1974	Rs. 6.00 \$ 2.00
2. A Literacy Journey—C. Bonanni, 1973	Rs. 8.00 \$ 3.00
3. Adult Education for Women, 1973	Rs. 6.00 \$ 2.00
4. Adult & Community Education : An Indian Experiment—S.R. Mohsini, 1973	Rs. 10.00 \$ 4.00
5. Adult Education in India—A Book of Readings— Edited by Anil Bordia, J.R. Kidd and J.A. Draper, 1973	Rs. 50.00 \$ 10.00
6. Adult Education for Farmers—J.C. Mathur, 1972	Rs. 12.00 \$ 5.00
7. Manual for Adult Literacy Teachers N.R. Gupta, 1971	Rs. 10.00 \$ 2.75
8. Adult Education in the Seventies, 1970	Rs. 5.00 \$ 1.75
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# indian journal of adult education

theme : farmers training and functional literacy V



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# radio listening behaviour and preferences of farmers— a panoramic analysis

P.N. Jha  
S.K. Katiyar

## introduction

With the implementation of the national demonstrations, farmers training and functional literacy programmes as the features of the new strategy for agricultural production, the farm and home units of the All India Radio have been geared to provide these programmes full radio information support. The Jaipur station of the All India Radio is one such center where the farm unit is active in dissemination of such knowledge. Jaipur being one of them. The main ingredients of the intensive farm programmes of the Jaipur Station of the All India Radio which has been serving the farmers of Rajasthan are the farm news, the market and weather reports and hints on agricultural practices based on calendar of operations. Particular emphasis is laid on the high-yielding varieties programme and the techniques available for successful crop growing and animal husbandry.

The farm and home unit of the Jaipur Station was inaugu-

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rated in January, 1968. Four types of programmes were being broadcast. They were *Karsan-Ri-Bat*, *Krishi Lok*, *Krishakon-Ke-Liye*, and *Dehati Radio Gosthi*. The first two programmes were put on air for 10 minutes at 6.20 a.m. and 1.50 p.m. respectively, while the first one was daily programme, the second one was put on air daily except on Sundays. The third one i.e. *Krishakon-Ke-Liye* operated for five days in a week for 35 minutes from 7.25 to 8.00 p. m. On the other two days i.e. Tuesday and Friday, the *Dehati Radio Gosthi* programme was relayed in its place for 30 minutes.

## the problem and the setting

The present study was designed to analyse the radio-listening behaviour and preferences of farmers so that the feedback could help in modifying the various aspects of the farm radio broadcasts to be meaningful and effective. The specific objectives of the study were : (1) to find out the frequency of listening to the farm radio broadcasts, (2) to determine the association of farmers' characteristics like socio-economic

status, age, level of education and size of land holding with the frequency of listening (3) to ascertain the relative preferences of the listeners (farmers) for different programmes, contents and modes of presentation of the farm radio broadcasts and the contents of the radio broadcasting in general and (4) to know the suitability of the existing farm radio broadcasts in respect of their timings, duration and languages as perceived by the listener-farmers.

The Village Bhojpura, within the listening range of Jaipur station of the All India Radio, having sufficient number of radio sets and farmers of different characteristics in respect of socio-economic status, age, level of education and size of land holding was selected as the universe for this study. All those farmers of this village who had a piece of cultivable land and were mainly engaged in agriculture and had ever listened to farm radio broadcasts were considered to be the sample for the study. They numbered 91.

## FINDINGS

### frequency of listening to farm radio broadcasts

An attempt was made to assess the number of times, farm radio programmes were listened by the farmers in a week. It was observed that *Karsan-Ri-Bat* programme was listened once in a week by only 4.40 per cent of the listeners, 15.38 per cent listened to it twice and there were equal number of listeners who (3.30 per cent) listened to it three and four times in a week and only 2.18 per cent listened to this programme five times in a week,

while none of the listeners had listened to this programme six times in a week. Regarding *Krishi Lok* programme, 16.50 per cent listened to it twice in a week, 12.09 per cent once in a week, 7.69 per cent thrice, 3.30 per cent four times, 1.09 per cent five times and 2.18 per cent six times in a week. *Krishakon Ke Liye* programme was attended three times a week by 32.53 per cent of the listeners, only once by 25.82 per cent, four times by 9.89 per cent and five times by merely 3.30 per cent of the listeners while there was none who listened to this programme six times a week. Quite a large number of listeners listened to the bi-weekly programme of *Dehati Radio Gosthi* ONCE in a week (83.55 per cent) and 10.99 per cent heard twice a week.

Further, 29.56 per cent and 42.86 per cent were the listeners of *Karsan Ri Bat* and *Krishi Lok* programmes respectively whereas as many as 94.50 per cent were the listeners of *Dehati Radio Gosthi* and 92.31 per cent of the *Krishakon Ke Liye* programme. This shows that the number of listeners was minimum for morning programme i.e. *Karsan-Ri-Bat* which was broadcast at 6.25 a.m. probably because it was not practicable for such listeners who did not have their own radio sets and are required to reach the place where radio is available. The *Krishi Lok* programme which was on Air at 1.50 p.m. might be suitable but since the talk was delivered by a specialist in Hindi only, such programmes were not intelligible to an average uneducated farmer and no wonder, only 42.86 per cent of the listeners heard this. No doubt, the number of listeners

for both the evening programme i.e. *Dehati Radio Gosthi* and *Krishakon Ke Liye* was large. Apart from the suitability of time, these programmes were rendered by farmers themselves following a number of modes of presentation like interview, group discussions etc. and Rajasthani was the language mainly used. This made the evening programmes interesting among the listeners.

### frequency of listening and listeners' characteristics

To find out the association of the listeners' frequency of listening with the independent variables like listeners' socio-economic status, age, level of education and size of land holding; contingency tables were prepared and chi-square test of independence was applied. For this, listeners were classified into two good<sup>1</sup>, and poor<sup>2</sup> listeners. The independent variables were classified into the categories as mentioned earlier while describing their measurement.

From Table 1, it could be inferred that the listeners' level of education and their degree of awareness about the farm radio broadcasts were associated with their frequency of listening to such programmes. The socio-

economic status, age and size of land holding were not associated with their frequency of listening.

### LISTENERS' PREFERENCES

#### programmes

Since there were four types of programmes that were broadcast by Jaipur station of the All India Radio, a probe was made to know the listeners' preferences for the various programmes. Respondents were asked to rank all the four programmes in order of preference (their liking). Then frequencies for each programme were tabulated. The scores assigned were 4 for first rank order, 3 for second 2 for third and 1 for fourth. Mean scores were obtained and the programmes were ranked in the descending order of magnitude.

It was found that *Dehati Radio Gosthi* was placed first in the rank order, *Krishakon Ke Liye* second, *Krishi Lok* third and *Karsan Ri Bat* was the least preferred programme. Local language, varieties, group discussion and dialogue styles, and suitable timing might be the reasons for preferring both the evening programmes. On the

Table 1

Association of the Socio-economic Characteristics and Degree of Awareness with the Frequency of Listening

Socio-economic characteristics and degree of awareness	Chi-square value	
	Significant	Non Significant
Socio-economic status	—	9.35
Age	—	3.44
Education	6.62**	—
Size of land holding	—	2.34
Degree of awareness	8.02**	—

\*\* Significant at 5 per cent level

other hand the morning and afternoon programmes were being broadcast by the specialists in Hindi only which is not comprehensible to every farmer apart from the fact that the morning time is not suited to farmers to listen to the broadcasts.

*Modes of presentation* :—For ascertaining the listeners' relative preferences for different modes of presentation of the radio programmes, the paired comparison technique was applied. There were four modes of presentation and hence 6 possible pairs were made and the respondents were asked to suggest only one out of the two items in each pair that they preferred and then the responses were analysed.

It was noted that interview type of presentation was preferred most in comparison to other types. Group discussion came next followed by straight talk presentation. The dialogue was not so liked by most of the listeners.

*Programme contents*: To know the listeners' preferences for the various contents of the radio programmes, again the paired comparison technique was used. As there were five types of programme contents, 10 possible pairs (N(n-1)) were made and respondents' were ascertained.

It was apparent that improved agricultural practices content of the broadcast were on top of rank followed by agricultural news indicating that farmers listened to rural programmes mostly for enhancing their knowledge about scientific farming. Contrary to the general belief, the Rajasthani songs occupied the lowest preference rank. Market report was next only

to both the agricultural programmes.

It was also interesting to the relative preference of the farmers for the different radio programmes not only of agricultural character but of all types. Their preferences were recorded on a 3 point scale and the mean score for each of the contents was calculated and the ranks were accordingly assigned.

The analysis revealed that agricultural aspect of radio broadcasting was liked too much by the listeners. This might be because all of the listeners were essentially the farmers in this study. Farmers are still tradition-oriented and have a strong belief in religion. No wonder, they placed religious talk next to state and regional news in order of preference. Games and sports came last in order of preference since farmers as a class have very little interest in radio commentary on cricket, hockey etc. Further, only a few farmers were interested in knowing some thing about political leaders and intellectuals and therefore this aspect was placed at the sixth place in order.

### **reasons to have radio sets**

Nine possible reasons based on a pilot study were introduced to the radio-owning farmers numbering twenty five. Respondents were asked to rank all the reasons for which they wanted to have radio sets in order of preference. They were free to add or delete any reason(s) and rank them as well along with the reasons listed.

Data revealed that the highest mean score was obtained for motivation to listen nation-wide news

and next for state and regional news. This indicates that farmers having radio sets were more eager to know the day-to-day happenings in their country, state and region for which they got information quickly through radio. Possessing radio for listening of agricultural programmes was ranked fourth next to entertainment that was assigned third rank. Farmers were not concerned with advertisement and they considered it to be least important.

### **suitability of the existing systems**

*Language* : It was observed that for *Karsan Ri Bat* programme which was broadcast in Hindi, only 20.88 per cent of the listeners wanted a change out of which 7.69 per cent were in favour of Hindi and Rajasthani combined, and 13.19 per cent were for Rajasthani alone. Rest 79.12 per cent of the listeners were satisfied with the existing language used for this programme. Regarding *Krishi Lok*, 76.93 per cent favoured the language being used, that is, Hindi, and only 14.28 per cent were in favour of Rajasthani, while 8.79 per cent were in favour of a mixture of Hindi and Rajasthani. In respect of both the evening programmes, a good number of listeners (81.12 per cent) were satisfied with the existing language (mixture of Hindi and Rajasthani) used.

*Duration* : The morning programme was of 10 minutes duration and 79.14 per cent of the listeners were satisfied with it. The present duration of 10 minutes for the afternoon programme was liked by as many as 84.62 per cent of the listeners while 13.19 per cent wanted half

an hour duration. Only 21.98 per cent of the listeners did not endorse the duration of 35 minutes only for *Krishakon Ke Liye* programme and wanted it to be of one hour, the rest 78.02 per cent were satisfied with the existing duration of the programme. As many as 75.82 per cent of the listeners of farm radio programmes were having no objection to the existing duration of *Dehati Radio Gosthi* while 24.14 per cent opined that it should be of about 2 hours. From these findings, it could be inferred that the existing duration of the four programmes was alright.

**Timings:** Most of the listeners (75.74 per cent) had no objection to the timing of the *Karsan Ri Bat* programme and only 23.07 per cent suggested that it should start between 7.00 and 8.00 a.m. and 2.19 per cent favoured the timing at 5.00 a.m. Only 18.68 per cent of the listeners pointed out that *Krishi Lok* should start at 12.00 noon instead of 1.50 p.m. while the rest 81.82 per cent did not object to the timing of this programme. Almost all the listeners (92.31 per cent) were in favour of the existing timing of the *Krishakon Ke Liye* programme and only a few (7.69 per cent) wanted it to start at 6.00 p.m. instead of 7.25 p.m. All the listeners were satisfied with the existing timing of *Dehati Radio Gosthi*.

### some other preferences

Out of 91 listeners 66 (72.52 per cent) gave their preference for home radio as compared to community radio which was liked by 21.48 per cent of the listeners only.

About 76.93 per cent of the listeners mentioned that they did

not get the programme schedule in advance while 23.07 per cent got prior information about the programme through the radio itself and in a few cases through village level workers, newspapers and other sources like friends and neighbours.

Majority of the listeners (67.08 per cent) mentioned that all the farm broadcasts should again be put on Air for their clear understanding while 19.78 per cent said that it was not desirable to rebroadcast every farm radio programme and rest 13.14 per cent did not give any response to this aspect of question. About half of the listeners (50.33 per cent) inferred that all the programmes were being broadcast as and when required (timely). One fourth of the listeners did not consider the programmes timely while another one fourth did not give their opinion about this.

For 14.22 per cent of the listeners, neighbours gave advice to listen to such broadcasts, whereas for 81.12 per cent of them, the village level workers and for 2.19 per cent, the school teachers gave the advice to listen to farm radio programme, while 2.47 per cent of the listeners did not give any response.

Most of the radio owners, numbering 25 had purchased their radio sets (92.00 per cent). Only 8.00 per cent of them got radio sets as the gift from their relatives. All of the radio sets were in working order except one in which there was some mechanical fault for preceding this investigation.

### conclusions and recommendations

The frequency of listening to farm radio broadcasts was rather

low and pattern irregular. Listeners' level of education was found associated with their frequency of listening to farm radio programmes. Listeners' socio-economic status, age and size of land holding were not associated with their frequency of listening to such programmes. However, there was an association between listeners' frequency of listening to and their degree of awareness of farm radio broadcasts. Listeners preferred both the evening programmes, *Dehati Radio Gosthi* and *Krishakon Ke Liye* programmes. Interview type of mode of presentation was preferred most, followed by group discussion, and dialogue was the least preferred. Regarding the contents of farm radio programmes, the order of preference was: improved agricultural practices, agricultural news, market report, weather report and Rajasthani songs.

As for contents of radio broadcasting in general, agriculture was placed first followed by state and regional news while the last preference was given to games and sports. Listeners' desire to listen to nation-wide news was the most important motivation for possessing their own radio sets and listening to state and regional news was the second one, entertainment being the third important motivation.

In general, more than three fourth of the listeners were satisfied with the existing language being used and the duration of various programmes. Home radio was preferred to Panchayat (community) radio by about three fourth of the listeners. Most of the listeners were in favour of getting prior information about the farm radio programmes and

that important programmes be rebroadcast from time-to-time. By and large, farmers were motivated by village level workers and neighbours to listen to farm radio programmes.

Since farmers' education had an influence on radio listening, an intensive effort to conduct farmers' training and functional literacy programmes on a sound footing will be conducive to farmers' listening to an understanding of the radio programmes. It is also suggested that in order to make radio listening a regular habit radio listening should be an essential feature of the field days organised at the national demonstration sites. Timings of the field days might be fixed to coincide with the afternoon farm radio broadcasts. The similar procedure could be followed while conducting *Charcha Mandals* (discussion groups) in the farmers' training and education programmes.

On the part of the radio station, all the important farm programmes should be repeated as and when required so that slow learners could also be able to get benefits from radio listening. Timing of the morning programme, that is *Karsan Ri Bat* which was not liked by more than one-fourth of the listeners may be changed from season to season. In winter, it could start from 7.00 a.m. If possible, *Karsan Ri Bat* and *Krishi Lok* programmes be broadcast in the Rajasthani dialect for better comprehension. The programme schedule of the entire month should be widely distributed in the farming community which could be of great use to them. Farmers will, then, have a choice and listen to the programmes according to their existing needs and interests. If feasible, the duration of the evening programmes should be extended from the present 35 minutes to 45 minutes because this much of time could easily be devoted by farmers as they have relatively leisure time during evening hours and they had a special liking for them.

# farmers' motives to join training class

Raman B. Patel  
D.N. Pandya

During 1967-68 the Government of India sanctioned to establish Farmers' Training Centres all over the country. These training centres have their own definite objectives. At the same time farmers who join training classes have their definite motives to be fulfilled through training. According to the principles of teaching and learning, there would be effective learning if the objectives of the educational institutions are similar to the purposes of the learning. The purposes of learners may be different in a group of farmers. So it was thought necessary to know as to which type and with what purposes farmers joined the institutional training classes. The farmers were asked to indicate the purpose for which they had joined the training classes organized by the Farmers' Training Centre, Navsari. The objective of the study was to know as to which type and with how many purposes farmers joined the institutional training classes.

## procedure of the study

The study was conducted in the Valsad district. An interview schedule was prepared. The data were collected from the

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cultivators who were trained during 1969-70 by organizing personal interview. The data collected from the farmer respondents were tabulated. The data had been analysed and described in terms of percentages.

### number of purposes for joining training class

Majority of the farmers (72.00 per cent) had reported that they had joined training classes with dual purposes

while the percentage of the respondents who joined training classes with a single purpose was 28.00. Thus, majority of the farmers had come to take training with the two purposes. This fact motivated the research worker further to find out in detail as to with which double and single purposes they had joined the training. The information tabulated in Table II describes the type of single and double purposes with which farmers had joined the institutional training classes.

**Table I**  
Distribution of Respondents According to Their Type and Number of purposes of Joining Training Class

S. No.	Purpose	Number of respondents (Out of 200).	Percentage
<b>1. Type of purpose</b>			
(a)	To utilize time.	14	7.00
(b)	To get knowledge.	148	74.50
(c)	To establish new relationship.	16	8.00
(d)	To improve farming.	175	85.50
(e)	To get money	10	5.00
<b>2. Number of purposes to join training</b>			
(a)	One	56	28.00
(b)	Two	144	72.00
Total:		200	100.00

**Table II**  
Distribution of Farmer Respondents According to Type of Single and Double Purposes of Joining Training Class

S. No.	Item	Number of respondents (Out of 56)	Percentage
<b>1. Single purpose</b>			
(a)	To utilize time.	9	16.07
(b)	To get knowledge.	22	39.29
(c)	To establish new relationship.	8	14.29
(d)	To improve farming.	13	23.21
(e)	Others.	4	7.14
<b>2. Double purpose</b>			
		(Out of 144)	
(a)	To utilize time plus to get money.	14	9.72
(b)	To get knowledge plus to improve farming.	78	54.17
(c)	To utilize time plus to get knowledge.	32	22.22
(d)	To get knowledge plus to get money.	20	13.89

### single purpose

Out of fiftysix trained farmers who had reported single purpose of joining training classes, 39.29 per cent of the farmers had single purpose of getting knowledge, while 23.21 per cent of the farmers had single purpose of improving their farming. Nine farmers had joined the training classes to utilize time in a better way. The percentage of the farmers who had single purpose of establishing new relationships with other farmers and the staff members of the Farmers' Training Centre, Navsari was 12.29 while 7.14 per cent of the farmers had reported getting money as their only purpose of taking training.

Out of 144 respondents who had two purposes of joining the training classes majority of the farmers i.e. 54.17 per cent had double purpose to get knowledge plus to improve their farming, while 22.22 respondents had come with main two purpose to utilize time in a better way plus to get knowledge. The percentage of farmers who had two purpose to get knowledge plus to get money were 13.89 while 9.72 per cent of the respondents had joined the training class with two purpose to utilize time plus to get money from the Farmers' Training Centre, Navsari.

In this way acquiring new knowledge and improving farming were found to be the two main purposes for joining the training classes. Majority of the farmers had understood the purposes for which such training centres were established. Thus the purposes of trainees and purposes of institution were found to be in agreement. This also indicates that farmers have realised and understood the importance of acquiring new knowledge for increasing farm production.

# who participated in farmers' day

D. N. Pandya  
N. C. Patel  
J. C. Trivedi

## introduction

Farmers' day is an important extension method for providing learning experience to the farmers. It is generally organised on research and demonstration farms of the Agricultural University or of the Private Individuals or Institutions. To utilise farmers' day effectively as an extension teaching method, it is essential to attract and motivate as many farmers as possible. Multi-directional efforts are being taken to attract more and more farmers to farmers' day. It is, therefore, necessary to know as to which method or methods are more useful to attract the farmers. In organizing learning experience it is also essential to keep the learners' characteristics

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in mind as they play a vital role in making it successful. The institutions organizing farmers' day should organize the programme according to the convenience of the farmers attending it. It is, therefore, essential to study the personal characteristics of the farmers who participate in farmers' day being organized on research or demonstration farm.

With a view to knowing the characteristics of the farmers attending farmers' day and to find out the most successful communication method/methods through which the message of the farmers' day was received by the farmers, this study was made at the time of the farmers' day organised at the N.M. Agriculture College Farm during the silver jubilee year of independence.

## methodology

An interview schedule was prepared keeping in view the objectives of the present study. The

schedule was administered to the farmers who came to participate in the Farmers' day. At the close of the day the schedules were collected. The schedules thus collected considered universe for the study and were analysed suitably in the light of the stated objectives of this study.

## presentation and interpretation

The schedule was returned by 125 participant farmers duly filled in of the total number of farmers, 56.80 p.c. belonged to Valsad district whereas 43.20 p.c. belonged to Surat district. Among various talukas of Valsad district majority of the participant farmers (80.28 p.c.) were from Navsari taluka in which the college farm is situated. Similarly, among various talukas of Surat district majority of the farmers participants (74.08 p.c.) were from Mahuva taluka which is geographically adjacent to Navsari taluka. Nearness of the place has thus played an important role in inducing the farmers to participate.

On the basis of their age in completed years the farmers were grouped into three categories (Table 1).

An examination of information regarding age of the participant farmers reveals that four out of every five farmers were of more than thirty years of age. More than one half of the farmers were of more than 45 years of age. Larger participation of older farmers might be due to the fact that they are the decision makers in their families.

**Table 1**  
**Distribution of Participant Farmers According to Their Age in Completed Years**

<i>Category</i>	<i>Participant Farmers</i>	
	<i>No.</i>	<i>Percentage</i>
Age up to 30 years.	14	11.47
Age between 31-45 years.	39	31.97
Age above 45 years.	69	56.56

**Table 2**  
**Distribution of Participant Farmers According to their Level of Education**

<i>Level of Education</i>	<i>Participant Farmers</i>	
	<i>No.</i>	<i>Percentage</i>
Illiterate.	4	3.40
Primary.	66	55.93
Secondary.	35	29.65
Higher.	13	11.01

**Table 3**  
**Distribution of Participant Farmers According to Area of Land Owned by them**

<i>Area of land owned</i>	<i>Participant Farmers</i>	
	<i>No.</i>	<i>Percentage</i>
Upto 5 acres.	38	31.93
6-10 acres.	35	29.41
More than 10 acres.	46	38.66

The farmers who remained present in the farmers day were further grouped into four categories according to their level of education as depicted in Table 2.

Observation of facts presented above reveals that almost all (96.60 p.c.) of the participant farmers were literate. Among the literate farmers, 55.93 p.c. had

studied upto Primary level, 29.65 p.c. had studied upto secondary level and 11.01 p.c. had taken higher education. Interest shown by the educated farmers in modernization of agriculture might be due to their realization of the fact that agriculture has become a commercial enterprise now-a-days. The information regarding area of land owned by

the farmers who attended the farmers day was gathered. They were grouped into three categories; categorywise information is given in Table 3 :

It is observed from the facts presented in the table that nearly equal number of farmers from each category attended the farmers day. Small farmers might have participated in order to increase their income from the same piece of land owned by them. Farmers having larger holding might have participated to make their farming enterprise more commercial, irrespective of the size of holding, the farmers of the present day are eager to gain knowledge and skill for improving their farming.

In order to find out the most effective source of information the farmers were asked to indicate the source of information through which they knew about the programme of farmers day. Their responses are presented in Table 4.

Among various sources of information, sources of Agricultural College and taluka Panchayat have reached and conveyed message of farmers' day to larger number of farmers. Remaining sources of information were of very little use as they reached less than ten percent of farmers who attended the farmers day.

With a view to knowing their objective for attending programme of farmers day, the farmers were asked to indicate their objective for remaining present in the programme of farmers day. Their responses are given in Table 5.

**Table 4**  
**Distribution of Participant Farmers According to Source Through Which They Knew About Farmers Day**

<i>Source of information</i>	<i>Participant Farmers</i>	
	<i>Number</i>	<i>Percentage</i>
Gramsevak	11	9.01
Taluka Panchayat	44	36.06
District Panchayat	5	4.09
Agriculture College	44	36.06
Newspaper	12	9.83
Village leader	11	9.01
Radio	7	5.73
Other Farmers	5	4.09

**Table 5**  
**Distribution of Participant Farmers According to their Objectives of Attending Farmers' Day**

<i>Sr. No.</i>	<i>Objective of Attending Farmers' day</i>	<i>Participant Farmers</i>	
		<i>Number</i>	<i>Percentage</i>
1.	To gain new knowledge	58	51.78
2.	To solve own farming problems	32	28.57
3.	To acquire skill in new practices	85	75.89
4.	To pass leisure time	4	3.57
5.	To acquaint with progressive farmers	1	0.89

An examination of the data presented in the table reveals that three out of every four farmers had the objective of acquiring skill in new practices. Two out of every four farmers attended the farmers day with a view to gaining some knowledge in the various aspects of present day agriculture. One out of every four farmers had participated to solve problems faced by them in their own farming. A

few attended to use their leisure time and to get acquainted with other progressive farmers of the area.

Two out of every three farmers had not attended farmers day ever in the past, whereas remaining one out of every three farmers had participated in the farmers day held either at the college Farm or other Government Farms located in the area.

To know the extent of the success of the programme, the farmers were asked to indicate the extent of their satisfaction. Three out of every four farmers were satisfied to the fullest extent by the programme of the farmers day.

### **recommendations**

It seems from the findings that the farmers are reluctant to attend farmers' day if it is organised at a place far away from their village. Farmers' days should therefore, be organised at various places which may be convenient to the farmers. If the place at which farmers' day is organised is far away, necessary transportation facilities be made available.

The invitation given directly to the farmers by the institution organizing farmers' day has been found to be an effective motivational force for attending farmers' day. An institution organising farmers' day should therefore send invitation to the farmers either writing letter or by sending printed or cyclostyled invitation card.

Majority of the farmers had come to learn and develop skills in new practices and to acquire knowledge about new methods, new implement etc. Demonstrations of new practices should, therefore, be organised to provide adequate opportunities so that farmers can handle and use new equipments, implements etc. At the same time the distribution of printed or cyclostyled literature on the topics to be discussed on the day would increase the effectiveness and usefulness of farmers' day.

# training needs of farmers in relation to high-yielding varieties of paddy

N.K. Roy  
C. Prasad

## introduction

Though the impact of green revolution in wheat has generally been felt throughout the country, there has been no major break-through in rice yields. However, improvements have been made in rice technology and a major break-through in rice production can be expected in near future.

The technology of high-yielding varieties of paddy is complex and sophisticated. It requires a thorough understanding and repeated practice of different skills on the part of farmers to reap rich harvests. Further, with the wider use of high yielding varieties, agriculture has ceased to be a source of subsistence alone; the new agriculture has assumed the status of a modern business. Therefore, the farmers should be trained in specific operational and technical know-how and skills embracing all phases of production for maximizing their economic returns.

Keeping these facts in mind, the present investigation was undertaken to analyse the training needs of farmers in relation to high-yielding varieties of paddy

as perceived by the farmers themselves and trainers (for farmers) so that the training programme may be organised on genuine needs of the farmers.

## methodology

*Selection of study: Locale*—The present study was conducted in six randomly selected villages of Purnea district of Bihar.

*Selection of Respondents:* Two categories of respondents, namely, farmers and trainers of the Farmers' training centres of Bihar were selected. A sample of 187 farmers was selected from the six selected villages by stratified random sampling. The basis of stratification was size of holding. Responses from 42 trainers of the Farmers' Training Centres were obtained.

*Delineation of Areas of Training:* A list of 15 areas of training in relation to high-yielding varieties of paddy was prepared based on past studies on training needs of farmers and informal interviews with farmers, extension workers and trainers of Farmers' training centres of Bihar. The list was presented to a panel of judges for scrutiny. After scrutiny 12 areas of training in relation to high-yielding varieties of paddy were selected. These areas of training were: High-yielding varieties of paddy,

seed treatment, nursery raising, transplanting, fertilizers, plant protection measures, irrigation, improved agricultural implements, chemical weed control, storage, credit and marketing.

*Measurement of Training Needs:* The training needs of farmers in the twelve areas of training as perceived by the farmers themselves and trainers (for farmers) were measured with the help of a five-point rating scale. The five points of the rating scale with their scores given in the parentheses were: most needed (5), needed (4), somewhat needed (3), less needed (2) and not needed (1). The mean score for each area of training was calculated for each category of respondents separately. The areas of training were ranked in order of need for training on the basis of their mean scores. As the scores on the five-point rating scale ranged from 1 to 5, an average score of above 4.5, 3.5—4.5, 2.5—3.5, 1.5—2.5 and less than 1.5 indicated the degree of training, 'most needed', 'needed', 'somewhat needed', 'less needed' and 'not needed' respectively.

## findings and discussion

*Farmers' perceptions of training needs:* The relative need for training in the twelve areas of training as perceived by the three categories of farmers, namely, large, medium and small is presented in Table—1.

*Statistical tests used:* The Kendall Coefficient of Concordance (W) was calculated in order to test the agreement in ranking the twelve areas of training among the three categories of farmers. The Spearman Rank

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**Table—I**  
**Relative Need for Training in the Twelve Areas of Training**  
**as perceived by the Three Categories of Farmers**

Area of Training	Larger farmers (N=46)		Medium farmers (N=61)		Small farmers (N=80)		Pooled analysis	
	Mean Score	Rank	Mean Score	Rank	Mean Score	Rank	Mean Score	Rank
Plant Protection measures	4.34	(1)	4.54	(1)	4.68	(1)	4.51	(1)
High-yielding varieties of paddy	4.08	(3)	4.51	(2)	4.69	(1)	4.43	(2)
Fertilizer	4.18	(2)	4.42	(3)	4.58	(3)	4.39	(3)
Irrigation	3.96	(4)	4.38	(5)	4.29	(6)	4.22	(4)
Nursery raising	3.62	(7)	4.40	(4)	4.50	(5)	4.17	(5)
Credit	3.54	(8)	3.98	(6)	4.53	(4)	4.02	(6)
Improved implements	3.88	(5)	3.65	(7)	3.02	(9)	3.52	(7)
Seed treatment	2.53	(11)	3.62	(8)	3.87	(7)	3.34	(8)
Storage	3.50	(9)	2.80	(10)	2.36	(10)	2.89	(9)
Transplanting	1.59	(12)	2.85	(9)	3.35	(8)	2.59	(10)
Marketing	2.80	(10)	2.52	(11)	1.98	(11)	2.43	(11)
Chemical weed control	3.85	(6)	1.80	(12)	1.54	(12)	2.39	(12)

W=0.78\*\*

(\*\* Significant at .01 level of probability).

Correlation Coefficient (rs) was computed to test the degree of agreement in ranking the twelve areas of training by farmers and trainers.

As it appears from Table I, the large farmers did not perceive training in any main area as 'most needed', as the mean scores for all the areas were less than 4.50. Training in plant protection measures, fertilizers, high yielding varieties of paddy, irrigation, chemical weed control, nursery raising and credit was perceived as 'needed' by them in descending order. Training in the remaining areas were perceived as 'some what needed' and 'less needed' by them.

The medium farmers perceived training in plant protection measures and high-yielding varieties of paddy as 'most need-

ed' in descending order as the mean scores for these two areas were above 4.50. The areas of training perceived as 'needed' by them in descending order were: Fertilizers, nursery raising, irrigation, credit, improved implements and seed treatment. The remaining areas of training were perceived as 'somewhat needed' and 'less needed' by them.

The small farmers perceived training in high-yielding varieties of paddy, plant protection measures, fertilizers and credit as 'most needed' in descending order. The areas of training perceived as 'needed' by them in descending order were: nursery raising, irrigation, seed treatment and transplanting. The remaining areas of training were perceived as 'somewhat needed' and 'less needed' by them.

The analysis of ranks assigned to the main areas by individual categories of farmers revealed that the small and medium farmers assigned some ranks to five out of twelve areas of training. The large farmers ranked the main areas of training slightly differently than the medium and small farmers. The large and medium farmers assigned some rank to only one area, namely, plant protection measures. All the three categories of farmers assigned first three ranks with slight variations to plant protection measures, high yielding varieties of paddy and fertilizers. Besides these, there were differences in ranking the areas of training by all the three categories of farmers. Training in nursery raising was given fifth rank by small farmers and fourth rank by medium farmers whereas it was given seventh rank by the large farmers. Credit was ranked fourth by the small farmers whereas it was given eighth rank by the large farmers. Chemical weed control was given sixth rank by the large farmers whereas it was given last rank by the small and medium farmers.

The computed W value (0.78) was significant at 0.01 level of probability. Thus, the inference could be drawn that there was highly significant agreement among the three categories of farmers in assigning ranks to the different areas of training in order of need for training.

According to pooled judgment, training in plant protection measures was perceived as 'most needed' by farmers. Training in high-yielding varieties of paddy, fertilizer, irrigation, nursery raising, credit and improved

implements was perceived as 'needed' in descending order by the farmers. The areas of training, namely seed treatment, storage and transplanting were perceived as 'somewhat needed'. Training in marketing and chemical weed control was perceived as 'less needed'.

*Trainers' Perceptions of Farmers' Training Needs.* Table II shows that trainers perceived training in fertilizers, plant protection measures and high yielding varieties of paddy as 'most needed' for farmers in descending order. They also perceived training in seed treatment, transplanting, irrigation, credit, nursery raising and storage as needed for farmers in descending order. Training in chemical weed control, improved implements and marketing was perceived as 'somewhat needed' by them in descending order.

*Comparison of Farmers' perceptions and Trainers' Perceptions of Farmers' Training Needs:* An attempt was made to compare

the training needs of farmers in relation to high-yielding varieties of paddy as perceived by the farmers themselves and the trainers (for farmers).

As it appears from Table II, farmers perceived training in plant protection measures as 'most needed' only. But the trainers perceived that training in fertilizer, plant protection measures and high-yielding varieties of paddy was 'most needed' for farmers. Besides these, there were slight differences in training needs of farmers as perceived by the farmers themselves and trainers. Farmers perceived training in credit as 'needed' whereas the trainers felt that farmers needed 'somewhat' training in it. It is also evident from the table II that trainers' perceptions of farmers' training needs in the areas of training varied from 'most needed' to 'somewhat needed' whereas farmers' own perceptions about their training needs varied from 'most needed' to 'less needed'.

The computed value (0.70)

was significant at 0.05 level of probability. Thus, the inference could be drawn that there was significant agreement between farmers and trainers in assigning ranks to the different areas of training in order of need for training.

### summary and conclusion

The present investigation was undertaken to compare the training needs of farmers in relation to high-yielding varieties of paddy as perceived by the farmers themselves and trainers of the farmers' training centres for farmers. The pooled analysis revealed that training in plant protection measures was perceived as 'most needed' by the farmers. The areas of training perceived as 'needed' by them in descending order were: high-yielding varieties of paddy, fertilizers, irrigation, nursery raising, credit and improved implements. The trainers perceived training in fertilizers, plant protection measures and high-yielding varieties of paddy as 'most needed' for farmers in descending order.

The findings of the study bring into light that farmers need training not only in package of practices but also in credit, improved methods of storage and preparation of produce for the market. Therefore, the content of the Farmers' Training Programme should be changed. The subject matter content of the training programme should include package of practices of high-yielding varieties of paddy, credit, storage and marketing. The priority on topics in training programme should be in order of plant protection measures, fertilizers, high-yielding varieties of paddy, irrigation, credit, nursery raising, seed treatment, improved implements, storage, marketing, transplanting and chemical weed control.

**Table II**  
**Training Needs of Farmers in the Areas of Training as Perceived by Farmers Themselves and Trainers**

Area of Training.	Farmers (N=187)		Trainers (N=42)	
	Mean score.	Rank.	Mean score.	Rank.
Plant protection measures	4.51	(1)	4.68	(2)
Fertilizer	4.39	(3)	4.74	(1)
High-yielding varieties of paddy	4.34	(2)	4.64	(3)
Irrigation	4.22	(4)	3.90	(6)
Nursery raising	4.17	(5)	3.62	(7)
Seed Treatment	3.34	(8)	4.32	(4)
Credit	4.02	(6)	3.0	(9)
Improved implements	3.52	(7)	3.08	(11)
Transplanting	2.59	(10)	3.98	(5)
Storage	2.89	(9)	3.54	(8)
Chemical weed control	2.39	(12)	3.15	(10)
Marketing	2.43	(11)	2.95	(12)

$r_s = 0.70^*$  (\* = Significant at .05 level of probability.)

# training linkage for adult farm telev viewers

N.P. Singh  
C. Prasad

Human organism has a tendency to actualize itself. Unsatisfied human needs with their resulting tension inside the organism would serve as a motive to arouse and direct behaviour towards goal. Training, here comes as an active process to accentuate the further self actualization. Because, the desired knowledge, skill, attitude and ideas are inculcated, fostered and reinforced in the organisms to meet their need disposition.

Training for rural telev viewers, especially the farm telev viewers, would involve learning and sharing of the concept of progressiveness. It would enforce acquiring ability in the organism to stimulate changes around the developmental programme. Training imparted on a content in which the subject has already been through other media, confers more contrived-cum-practical experience to them. The present paper suggests the ways and means to link such training programme of adult farm telev viewers with that of the farm telecasts on the air.

## understanding the farm telev viewers

Farm telev viewers are the persons who possess the propensity towards *Krishi Darshan*\* viewing

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and hold some interest and curiosity in the programme. Several studies on farm television and its audience characteristics revealed that the potential viewers are adult farmers who have high achievement motivation and more change proneness. A recent study by the authors on television (TV) has propounded the telev viewers responses (Delhi villages) about the farm telecast that too supported the above proposition. Analysis further indicated that majority of the farm telev viewers (68 per cent) hailed from the age group 26 to 45 years, 20 per cent from above 45 years of age and only 12 per cent of the sample were below 26.

The study considered those people as viewers who viewed the farm programme atleast once in a fortnight (whether intentional or casual viewing). It was found that the viewing behaviour of such telev viewers was governed by their viewing pattern (interest to take note of something while viewing) and induction potentiality. It was also interesting to note here that the members of tele-club had higher induction potentiality and better induction influence among the fellow viewers and non-viewers than the 'non-viewers' viewers. Media exposure, degree of cosmopolitanism, family norms and need for achievement contributed signifi-

\* Agricultural programme on television.

cantly towards their viewing and feed-back behaviour.

Above findings provide us enough foundation to come out with a designed training for the selected TV audience. Thus, understanding of the trainees, their behaviour and information gap therewith, would give us a basic idea as to how to frame a training-linkage approach.

## training needs

Decision of the training content and methods depend upon the perceived training needs of the telev viewers. As stated, adult farmers constitute the major telev viewers group and most of them share the tele-club membership. If this arrangement holds good, the content of the training programme may be geared to, on the basis of estimated farm information needs of the trainees.

The study, mentioned above, has reported a significant gap between the amount of farm information needed by the telev viewers and information input supplied by TV (see Table No. 1).

The significant amount of gap magnifies the urgency of a linked training programme of those telev viewers so as to abridge the 'gap as far as possible. Determination of the needs of the adult trainees is a pre-requisite for devising a training strategy for them. Thus, to estimate their training needs following 'two-way method' it is suggested that its estimation may be done either through content analysis of the selected farm telecast or by interviewing telev viewers. They can be asked to respond as to 'in which farm area you seek information?' In this context following important points may be considered :

**Table 1.**  
**Television Information Level and Viewers Information Need**  
**(May and June 1973 Telecast)**

Sr. No.	Items.	TV informa- tion % in- dex.	Televie- wers' need disposi- tion index.	Diffe- rence.	't' value of mean diffe- rence.
1.	New seeds and seeds production.	53.0	67.0	-14.0	
2.	Fertilizer and Fertility.	62.5	73.0	-15.5	12.55*
3.	Plant protection.	57.3	68.0	- 8.7	
4.	Credit and marketing.	47.5	60.0	-12.5	
5.	General farm infor- mation.	57.3	70.0	-12.7	

\* Significant at .01 level,

1. Decide the training duration. If it is for a short duration, keep it for a fortnight at least, so that viewers could get sufficient exposure through Television during the training period.
2. Long duration training programme may be of about two months as farm TV decides the contents bimonthly for two months.
3. Get the sequence of the TV programme-items, arrange the training needs, items accordingly and select the trainees from among adult viewers who fall in this line.

### linkage approach

Training linkage here connotes the linkage of institutional training programme with that of on-going farm telecasts whether of short or long duration, where the super media—TV would be of greater implication in avoiding the present follow-up crisis.

By and large, television for rural viewers has focussed on varied programmes, schemes, package of practices, recommendation of farm inputs and achievement stories of progressive farmers etc. to make them aware and knowledgeable about these ideas. Studies confirm that television does not take them directly to adoption level. However it would be worthwhile to link the TV exposed adult farmers with

training programme and make full use of existing teleclubs, reorganize them and convert the on-going functional literacy programme into the 'functional technocracy' programme. If teleclubs are not functioning properly the training to proposed adult viewers would reframe and stimulate the club activities automatically. Or, in places where such clubs are non-existent, they may be organized before training which would help the suggested linkage approach. Following important points may be considered for reinforcement to the adult viewers.

1. Training content should be decided preferably in consultation with TV centre. Its collaboration in such training programme would hold an additive value to the rural development programme.
2. Training content may be publicised in advance among the trainees who are at the same time viewers also.
3. Timing of the training should coincide the telecast and should continue for an hour or so after the telecast, depending upon the nature of the content.
4. If possible, the on-going training activities of evening should be broadcast through morning farm radio programme.

5. Besides, written or printed materials, use of verbal explanations, demonstration and slides etc. should be used appropriately.

### conclusion

Many of the educational and training activities for the farmers have met with unfortunate end. If some of them have survived they are limping. One of the fundamental reasons for this state of affairs is that we have ignorantly or in view of the hardship and complexity forgotten to make full use of extension education concept and approaches which create a real teaching-learning climate in the rural communities.

Since, the training and education of viewers is one of the most important aspects of their feedback efficiency that will not only improve the quality of the telecast but also it would lead to wide spread of the technology and thereby its appropriate use by the viewers. Quality of the telecast might be improved because the linked training programme would stimulate the evaluation process and supply the adequate feedback to the TV centre. Various media-methods included in the training will provide enough stimuli to the trainee viewer that would serve as a potential cause for creating interest for rural development. As stated, the content of such approach should be decided keeping in view the specific functional requirements of the adult farm viewers, who are basically crop growers, poultry or dairy farmers. The trainers involved in training programme need to know principles of teaching and learning and also the behaviour of adult viewers. Trainers may be selected, if possible, from among the experts or comperes who usually come on Farm TV. This would bring the learners more closer to the subject as well as to the teacher and consequently it might confer organized opportunities for the trainees to participate and acquire the necessary understanding and skill.

# effect of training on the knowledge of the teachers of farmers' functional literacy project

M. Khajapeer

## the problem

One of the major objectives of the Farmers' Functional Literacy Programme in India is to make the farmers receptive to change and innovations in the field of agriculture, in order that they adopt improved agricultural practices to increase their agricultural productivity. In this effort the Farmers' Functional Literacy teachers are the agents who are directly involved in guiding the farmers. As such sound knowledge on the part of these teachers in improved agricultural practices is a pre-requisite for the success of the programme. To ensure this knowledge on the part of teachers a ten day training programme is organised for them before they take up the assignment of teaching in literacy centres.

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An evaluative study of the effect of training on the knowledge of teachers helps the administration of the programme to know (1) whether training has resulted in the increase of knowledge possessed by teachers? and (2) whether the knowledge possessed by the teachers after training is sufficient to enable them to guide the farmers to lead them to the achievement of the desired goal? Once the administration knows the answer for the two questions mentioned above, it may decide to continue such training programmes if they are useful in increasing the knowledge of teachers or to do away with them if they are ineffective. In addition to this, if the administration realises that the knowledge increased and possessed by the teachers after training is inadequate to enable them to guide the farmers effectively, it may organise yet another such

training programme subsequently to give reorientation to the knowledge of teachers so that they become more effective and adept in guiding the farmers.

The Department of Adult Education, S.V. University, Tirupati (A.P.) is operating a Farmers' Functional Literacy Project in Chandragiri and Pulicherla Blocks of Chittoor District of A.P. in collaboration with Andhra Mahila Sabha of Hyderabad. Before the commencement of functional literacy work in the 'centres' a ten day training programme was organised for the benefit of the teachers from 17th to 26th of April, 1974 in S.V.U. Campus.

The present study is an effort to evaluate the effect of training programme mentioned above on the knowledge of these teachers in growing paddy. The knowledge of paddy alone is being evaluated because paddy is one of the major crops grown in this region.

## objective

The objective of this study is to find out if the training programme for teachers enables them to acquire more knowledge and thus be more effective. We further intend to know if the variable of sex, age, educational qualification and occupation are related to the acquisition of knowledge in the process of training.

## methodology

A questionnaire consisting of 60 items pertaining to HYVs of paddy and the improved practices to be adopted in the growth of

paddy was prepared and administered under unspeeded conditions to 42 ex-teachers of Farmers' Functional Literacy Project of Chinnagottigullu Block of Chittoor District, where formerly the Functional Literacy Project was in operation. After the item analysis, 15 multiple-choice items (which had validity indices  $\geq 0.30$ -after correcting for chance success), 21 one word answer type items (which had validity indices  $\geq 0.25$ ) and 5 right or wrong type items (which had point biserial correlation  $\geq 0.393$  at 0.01 level for d.f. 40) were retained for the final study. The questionnaire for the final study had 41 items emerging out of the process discussed above.

**Sample and Scoring for the Final Study:** The questionnaire was administered to all the 60 teachers on 18th of April 1974. Out of these 60 questionnaires returned, 53 were fully answered by the teachers. From 18th of April to 26th of April of 1974 the teachers listened to the extension experts from Farmers' Training Centre—Sri Kalahasti, S.V. Agricultural College, Tirupati and the officers and lecturers of Deptt. of Adult Education, S.V. University, Tirupati, on the evening of 26th of April 1974 the same questionnaire was administered to the 60 teachers. On collection of these questionnaires it was found that only 50 questionnaires were complete with regard to their answering. These completely filled up 50 questionnaires were selected for the purpose of analysis and interpretation of data. In the course of qualification each right answer was given a point and the sum of such points was the total score of a particular respondent. The

data obtained were interpreted in the light of variables of sex, age, qualification and occupation.

### findings

To test our contention that training increases knowledge of teachers, the necessary statistical results such as means of pre and post tests, difference between means (D), standard error of difference between means (SED) when Ns are large, standard error of the mean difference when Ns are small and (one-tailed) values were calculated. Table No. 1 gives the details—

As it is evident from table No. 1, all that values are significant at .01 level. This means that the difference in the means of pre-test and post tests are due to the effect of the 10 day training. It can be said that the ten day training programme has benefited the total sample and the

sub-samples (indicated in column 2 of table No. 1) in acquiring higher knowledge regarding paddy when compared to the knowledge possessed by them before training.

The highest gain of 15 points (average) in knowledge as a result of training is evidenced by the female group. A comparative study of the two means of females reveals that this highest difference is not because of the higher mean of them after training but because of the lower mean of them before training. This lower mean of women before training may be because women in villages expose themselves lesser to agriculture knowledge disseminating sources such as V.C.Ws, agriculture extension officers etc.

To examine the relationship with different variables, the necessary statistical results

**Table 1**  
**Group, Pre and Post Test Means, N, D (difference between means), SED/SEMD AND t (one-tailed) Values.**

S. No.	Group	Mean Pre-test	Mean Post test	N	D (4-3)	$S_{ED}^*$ / $S_{EMD}^{**}$	d.f.	Calculated t (one-tailed) value
1	2	3	4	5	6	7	8	9
1.	Total sample	15.24	25.98	50	10.74	0.89*	49	12.00***
	<i>Sex</i>							
2.	Males	15.93	26.00	43	10.07	0.38*	42	26.50***
3.	Females	11.00	26.00	7	15.00	1.38**	6	10.86***
	<i>Age</i>							
4.	20-30 Years	15.36	25.40	30	10.04	1.15*	29	8.73***
5.	31-45 Years	16.27	25.00	11	10.27	2.23**	10	4.61***
5.	Above 45 Years	16.11	26.67	9	10.56	1.10**	8	9.60***
	<i>Qualification</i>							
7.	Below SSLC	14.73	19.99	11	5.26	1.66**	10	3.17***
8.	SSLC	15.30	25.19	28	95.89	1.12**	27	8.83***
9.	Above SSLC	14.27	26.17	11	11.90	2.23**	10	5.35***
	<i>Occupation</i>							
10.	Cultivators	14.39	26.57	33	11.64	1.37*	32	8.49***
11.	Wholly Non-cultivators	15.70	24.23	17	8.53	1.23**	16	6.94***

\*\*\* Significant at .01 level

such as  $D^*$ , the difference between two changes (in the case of females) and males it is  $15.00 - 10.07 = 4.93$ —table No. 2)  $S_{D_D}$  standard error of the difference between two changes and the  $t$  values are calculated. Table No. 2 gives details.

As it is clear from table No. 2 the  $D^*$  value 4.93 (the difference of the differences of the means of the pre and post tests of males and females) is significant at .05 level. This suggests that there is a significant difference in the knowledge obtained by males and females as a result of training. Hence on the calculated  $t$  value of males and females it can be said that females are more benefitted by the training than males.

All the three  $t$  values calculated in respect of the 20-30 and 31-45, 31-45 and above 45 and 20-30 and above 45 years age groups are not significant. This means that age as a factor does

not account for the difference in the knowledge gained as a result of training.

The  $t$  value calculated for the groups with SSLC and below SSLC qualifications is significant at .05 level. This accounts for a significant difference in the knowledge obtained by these two groups as a result of training. The observation of  $D_s$  (Column (4) of table 2) reveals that the group with SSLC qualification is benefitted more by the training than the other.

Similar is the case with the groups with qualifications below SSLC and above SSLC as  $t$  is significant at .05 level. The observation of  $D_s$  reveals that the group with qualification above SSLC is benefitted more by training than the other in discussion.

The  $t$  value obtained in the case of cultivators and wholly non-cultivators is significant at .10 level which means that there

is a significant difference in the knowledge obtained as a result of training by these two groups. The value of  $D$  of column (4) of table 2 is more in the case of cultivators than the other group in discussion. So it may be said that the cultivators group is more benefitted by the training than the wholly non-cultivator group.

## conclusions

1. As a result of training the knowledge of the teachers pertaining to paddy has increased.

2. The knowledge of the total sample after training as revealed by the mean knowledge however is not at the desired optimum. Hence to increase the knowledge of teachers further, another training programme may be organised by the administration.

3. Among the male and female categories, females were benefitted more than males by the training.

4. Age as a factor does not account for the differences in the knowledge gained as a result of training.

5. (a) The knowledge gained as a result of training by the group with SSLC qualification is more than the group with qualification below SSLC.

(b) The group with qualification above SSLC has gained more knowledge as a result of training than the group with qualification below SSLC.

6. The group consisting of cultivators is more benefitted in acquiring knowledge as a result of training than the group consisting of wholly non-cultivators.

Table 2

GROUPS,  $N, D$  (as given in table No. 1)  $D^*$ ,  $S_{D_D}$  and  $t$  values

S. No.	Groups	N	D (as given in table No. 1)	$D^*$ (difference between two changes)	$S_{D_D}$	d.f.	Calculated $t$ value
1	2	3	4	5	6	7	8
<i>Sex</i>							
1.	Males	43	10.07)	4.93	2.25	48	2.19*
2.	Females	7	15.00)				
<i>Age</i>							
3.	20-30 ) Yea-30	11	→10.04	0.23	2.25	39	0.102 (N.S.)
4.	31-45 ) rs.		→10.27	0.29	2.66	18	0.109 (N.S.)
5.	Above 45)		→10.56	0.52	2.09	37	2.240 (N.S.)
<i>Qualification</i>							
6.	Below SSLC	11	{ 5.26 }	4.63	2.04	37	2.27*
7.	SSLC	28	{ 9.89 }	2.01	2.26	37	0.89 (N.S.)
8.	Above SSLC	11	{ 11.90 }	6.64	2.74	20	2.42*
<i>Occupation</i>							
9.	Cultivators	33	11.64)	3.11	1.79	48	1.74**
10.	Wholly Non-Cultivators	17	8.53)				

\* Significant at .05 level

\*\* Significant at .10 level

# differential impact of agricultural innovations on knowledge gained by adult farmers through different extension teaching methods—an experimental evidence

M.M.P. Akhouri

R.P. Singh

Selection of right extension teaching methods for given situations, audience and practices are the real secrets of success of extension workers. This saves time, labour and money. Besides socio-economic and personal attributes of farmers such as age, education, holding, etc. the practices themselves may emerge as important consideration, while making selection of different extension methods. It has been observed that practices vary as regards the extent of skill involved, complexity, compatibility, feasibility as well as farmers' interest in them. Similarly, methods vary in their capacity of skill, arousing interest and clarity. Hence, all

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extension teaching methods may not be equally effective in teaching all practices.

The present experimental study attempted to ascertain the influence of agricultural innovations on knowledge gained by farmers through different extension teaching methods by testing the following hypotheses.

1. Agricultural innovations have no influence on knowledge gained through different extension teaching methods.
2. Agricultural innovations have no influence on knowledge gained through (a) farm and home visit, (b) group discussion, (c) film show.

## methodology

This study was conducted in

three purposively selected villages—Khankita, Bhatti and Mamalkha of C.D. Block, Sabour, Bihar. Under 3<sup>3</sup> factorial design, the respondents themselves were divided into 3<sup>3</sup> i.e. 27 mutually exclusive classes comprising of all combinations of three levels of socio-economic factors, i.e. age, education and holding. All the 27 groups could not be available in each village but when the respondents of all the three villages were taken together, each group was represented at least by one. Total number of respondents become 64.

Pre-decided contents of three selected agricultural practices, i.e. use of improved seed, improved method of groundnut cultivation and green manuring were exposed to similar group of respondents

through three different extension teaching methods, i.e. Farm and Home Visit, Group Discussion and Film Show. This was replicated in three villages to avoid cumulative effect of one method over others.

Three different schedules, one for each practice, were prepared based on the pre-determined text of each practice. The initial knowledge status regarding each practice was ascertained by interviewing the respondents with respective schedules before exposing them through any extension method. The knowledge status was determined in terms of scores obtained as per score card drawn earlier. The respondents were then exposed to the text of different practices through different extension methods. The final knowledge-status was assessed by interviewing them with the same schedule after every exposure. The difference between the final and initial scores was taken as a measure of knowledge gained due to different extension methods.

The data thus obtained were analysed by adopting the technique of analysis of variance with unequal observations.

### findings

The difference in the final and initial scores on corresponding schedules was taken as the effect due to different extension teaching methods. Data thus obtained were statistically analysed and the analysis of variance is given in table 1.

Variation in knowledge score due to variation in agricultural innovations has been found significant at 5% probability. Hence

the hypotheses (1) that agricultural innovations have no influence on knowledge gained through different extension teaching methods is rejected.

Further, table 2 reveals that knowledge gained regarding the innovation like green manuring were significantly higher than those regarding other two innovations—improved seed and groundnut cultivation.

With individual extension teaching methods, in relation to all the three practices, the following observations may be made from Table 2.

Farm and Home visits are quantitatively more effective in teaching green manuring than for both 'groundnut cultivation and improved seed. Qualitatively, the superiority of this method is visible with the other two prac-

Table 1

#### Variation in knowledge

Source of variation	DF	M.S.S.	Calculated F
Teaching Methods	2	4005.89	52.9**
Agricultural innovations	2	282.41	3.73*
Error	187	75.6	
Total	—	191	—

\* Significant at 5% ;

\*\* Highly significant.

Table 2

#### Improvement in Knowledge Scores with Different Agricultural Practices through the Three Extension Teaching Methods.

Ext. Methods.	Agricultural Practices.	Use of improved seed.	Imp. Method of Groundnut cultivation.	Green Manuring.	Total of Methods.	C.D. at 5% level.
Farm & Home Visit	27.02 (22)	25.1 (20)	< 32.09 < (22)	28.16 (64)	I 20/20— 3.454	
				> 28.16 > (64)	II 20/22—	
Group Discussion	17.38 (22)	16.54 (22)	16.08 (22)	16.68 (64)	III 22/22— 3.386	
				> 16.68 > (64)	IV 64/64—	
Film Show	9.83 (20)	12.5 (22)	< 16.36 < (22)	12.99 (64)	1.973	
				> 12.99 > (64)		
Total of Practices	18.33 (64)	17.82 (64)	< 21.68 < (64)			

tices as well, only the responses here being of lower magnitude. Hence the hypotheses (2a) that agricultural practices have no influence on knowledge gained through Farm and Home visit is rejected.

As regards Group Discussion method, Table 2 reveals that the differences in knowledge gained about different agricultural practices are not statistically significant. Hence the hypotheses (2b) that agricultural practices have no influence on the improvement of knowledge through Group Discussion method is accepted.

Film Show, on the other hand, has similar influence in relation to both improved seed and groundnut cultivation. This method, however, is significantly more effective in teaching green manuring. This shows that agricultural practices influence the extent of knowledge gained through film show. Therefore, the hypotheses (2c) that agricultural practices has no influence on the improvement of knowledge through Film Show is rejected.

Another interpretation of the above table may be in terms of relative effectiveness of different extension teaching methods for each practice.

For green manuring, Farm and Home Visit was proved most effective. But there were no significant differences in the extent of knowledge gained through either Group Discussion or Film Show, though the Film Show seemed slightly better than Group Discussion.

For both groundnut cultivation and improved seed practices,

Film Show was found less effective than Group Discussion method and both were found inferior to Farm and Home Visit.

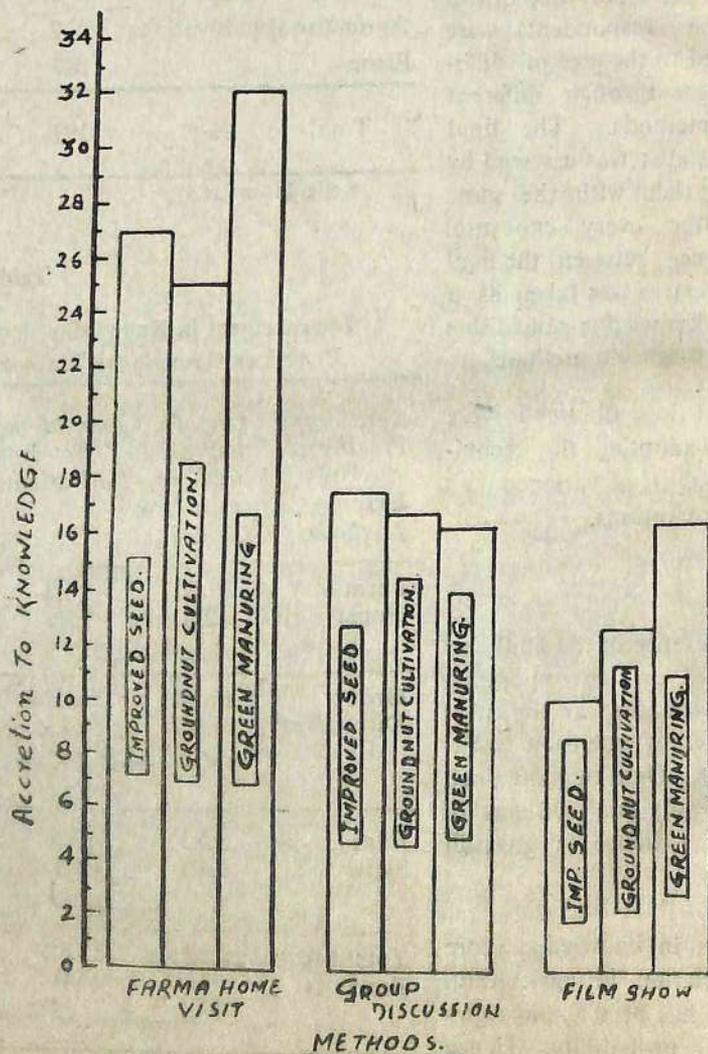
### conclusion

Agricultural practice influence the extent of knowledge gained through different extension teaching methods. Farm and Home visit is most effective for all the three practices. Group discussion method is least effected by farm

practices. Film show and Group Discussion are equally effective for teaching green manuring. But Group Discussion is better than Film Show for educating farmers about the use of improved seed.

Finally, it may be concluded that several studies are needed to recommend the most effective methods or combination of methods for educating farmers about important agricultural practices.

### RELATIVE EFFECTIVENESS OF EXTENSION TEACHING METHODS WITH DIFFERENT AGRICULTURAL PRACTICES.





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