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E-Mail : iaedelhi@gmail.com, directoriatea@gmail.com

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The average length of a manuscript should normally be between 1500 and 2500 words; in exceptional cases, longer articles can also be accepted. Mimeographed, zexored or carbon copies of manuscripts will not be accepted. Manuscript should be typed in double space, on one side, with a 2" margin on A4 size paper. Footnotes and references should come at the end and not on every page. Authors are requested to submit one soft copy along with the CD (MS Word). Articles can be sent by E-mail at iaedelhi@gmail.com

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Recently there was a news item in one of the national dailies that as per the latest survey conducted by Kelly Global Workforce Insights (KGWI) globally around 60% of the candidates in technical sectors lack right balance of hard and soft skills. As per the managers of professional/technical sectors ability to listen and team work as key soft skills they look for in potential candidates. The most important five hard skills referred in the survey are analytical thinking, communication, evaluation/analysis/accuracy/trouble shooting, technical including systems/computers/software and complex problem solving. It has also been mentioned that team work is even more critical for engineering talent. This is an important information that needs to be given due care both by the institutions which impart education and training in the technical and vocational sector but also for the students/trainees participating in the programmes.

When the traditional educational system failed to enable the students to compete in the employment market for jobs, the system turned to the need for imparting vocational skills. Hence, today the world countries including India give a lot of importance to vocationalization of education so that there is a trained manpower available for getting suitable employment. But this will be proved negative if the above said soft skills are not known to the candidates appearing in the interview as the managers are interested to pick and choose the candidates for different jobs based on both hard and soft skills. so, the vocational training and technical educational institutions should broad base the curriculum which includes both hard and soft skills so that trainees/students are not only aware of this but also practice during the academic sessions.

The career guiding institutions which enroll persons in search of jobs for further training also need to give specialized training in the soft skills – both theory and practice so that they are able to perform well in the interview before the managers who hire the manpower.

Candidates should be open to interning or taking temporary positions either in the beginning or in the middle of their career to build experience. Starting as a temporary employee or completing an internship gives talent and edge with professional/technical hiring managers, especially for the engineering candidates.

The survey also reveals that relationships play the most important role in personal branding and it is changing the way people network. Even the freelancers tap their personal and professional network to find jobs via word-of-mouth and reference. Here also the skills possessed by the freelancers have given them reputation.

Lifelong Learning and Life Skills for Self-Development

Mridula Seth
Aparna Khanna

Writing this paper was an opportunity for self-reflection to ask myself if I am a lifelong learner. I tried to recall faces of people whom I have known or read about and their joys in continuing to learn through different phases of their lives. What is it that they have in common? What is Lifelong learning? What are Life skills? Why is it important to be a lifelong learner? How does an enhancing life skill contribute to personal and professional development? What are some of the insights gained over a period of over four decades that reflect being a learner engaged in improving my own life skills?

Part 1: Conceptual framework

1.1. Lifelong Learning

Lifelong learning (LLL) is the voluntary act of learning throughout one's life. It encompasses learning at all ages and subsumes formal, non-formal and informal learning. Lifelong learning has emerged as one of the keys to improving the quality of life in the 21st century. Providing opportunities to learn throughout is a crucial factor in the struggle to eradicate poverty and to educate for sustainable development. Adopting the principle of lifelong learning does demand a new vision, one that shifts the emphasis from education to learning; one that moves to a more seamless and user-friendly system; one that recognizes the diversity of ways in which knowledge and skills can be acquired in the information age outside of the formal system (Power & Maclean, 2011).

Two ground-breaking reports on lifelong learning by UNESCO (Faure Report, 1972; Delors Report, 1996) articulated fundamental principles of lifelong learning. Main and common principle of LLL is that education and organized learning should no longer be limited to a person's youth, nor should education be exclusive domain of educational institutions. The Belém Framework for Action (2011) also affirms the role of lifelong learning in addressing global educational issues and development challenges. UNESCO Institute for Lifelong Learning has organized a wide range of activities along strategic areas of action on advocacy, research, capacity-building and partnership. After the Faure Report, the term 'lifelong education' was replaced by 'lifelong learning'. In 1996, UNESCO's Delors Report acknowledged the need to rethink and update the concept of lifelong education so as to reconcile three forces: competition, which provides incentives; co-operation which gives strength; and solidarity, which unites.

The four pillars of education for lifelong learning identified by UNESCO (1972) are - Learning to know, learning to do, Learning to live together, and Learning to be. It is a kind of education contributing to a person's complete development including mind and body, intelligence, sensitivity, aesthetic appreciation and spirituality. Thus, lifelong learning contributes to one's personal and professional development. It builds life skills that go well beyond professional development to make a wholesome person living in this chaotic world to find spaces for experiencing happiness and satisfaction within the given constraints by being involved and yet detached. Although lifelong learning is being increasingly cited as one of the key principles in the fields of education and development, shared understanding of the term's usage at the global level is lacking.

1.2. Life skills

Life skills have been defined by the WHO (1994) as 'the abilities for adaptive and positive behaviour that enable individuals to deal effectively with the demands and challenges of everyday life'. From this perspective, life skills are essentially those abilities that help to promote mental well-being and competency in young people as they face the realities of life. At times also referred to as Living Skills, they denote the personal competencies that enable persons to confront and deal effectively with life's everyday challenges and demands (Yarham, et al., 1999). Life skills, even though focused on children, youth and people with special needs, are actually needed by all. The socio-cultural environment in today's world continues to change rapidly in different phases of life demanding physical and mental adjustments. Professionals need to be mentally alert and stable to cope with work pressures affecting their performance at work and personal lives. Building their life skills through lifelong learning can be productive for themselves and others.

Information is important to make sound and wise decisions in life. However, we need skills to transfer that information or knowledge (what one knows) and attitudes or values (what one believes and feels) into actions (what to do and how to do it). Life skills enable us to translate knowledge into action. Life skills can be considered as a synthesis of thinking, social and emotional or self-management skills (Seth, 2000; 2012). Thinking skills are a set of basic and advanced skills that govern a person's mental processes. These include knowledge; comprehension; application; analysis; synthesis; and evaluation. Social skills are skills that enable a person to establish and build relationships with others. These include interpersonal relationships; communicating effectively; cooperation & teamwork; and empathy. Emotional skills are skills that are related to controlling emotions and feelings. These include self-management skills (managing feelings/emotions, resisting peer/family pressure); assertiveness towards consensus building; and advocacy skills. Each one of us has ample scope for improving our life skills through lifelong learning to lead a life of fulfillment for personal and societal development.

1.3. Self-Development

Self-development is a lifelong process. It's a way for people to assess their skills and qualities, consider their aims in life and set goals in order to realise and maximise their potential.

According to Maslow (1970), all individuals have the need to see themselves as competent and autonomous and every person has limitless room for growth. Self-actualisation refers to the desire that everybody has to become everything that they are capable of becoming. In other words, it refers to self-fulfilment and the need to reach full potential as a unique human being. For Maslow, the path to self-actualisation involves being in touch with your feelings, experiencing life fully and with total concentration. Self-development includes personal and professional development.

Continuing Professional Development (CPD) refers to the process of tracking and documenting the skills, knowledge and experience that you gain both formally and informally as you work, beyond any initial training. The CPD process helps you manage your own development on an ongoing basis. through recording, reviewing and reflecting on one's learning. Development is often informal and has a wider application, giving you the tools to do a range of things and relating to capability and competency. It involves progression from basic know-how to more advanced, mature or complex understanding. Alternatively, it can be about widening your range of transferable skills like leadership, managing projects or organising information.

For professional development, the basic assumptions of andragogy explained by Dr. Malcolm Knowles are very relevant: adults are independent learners, they carry with them a lifetime of experiences, adults must see an immediate application of the learning, and they are more driven by an internal as opposed to an external need to learn (Knowles, 1980). Applying Knowles' principles, this can be achieved through self-directed learning: Assumption #1 (Self-Concept) - create learning experiences that offer minimum instruction and maximum autonomy; Assumption #2 (Adult Learner Experience) - seek a wide range of instructional design models and theories to appeal to your varied experiences and background; Assumption #3 (Readiness to Learn) - utilize all resources, social media and online collaboration tools to learn; Assumption #4 (Orientation to Learning) – prioritize and select subject matters to solve problems encountered and further your interests; Assumption #5 (Motivation to Learn) - find a valid reason for the activity.

While few educators would argue against the need for and the importance of professional development, specific programmes and learning opportunities may be criticized or debated for any number of reasons, especially if the professional development is poorly designed, executed, scheduled, or facilitated. However, Lifelong learners equipped with life skills seek or create opportunities for experiencing happiness and satisfaction in their personal and professional lives.

1.4. Importance of Lifelong learning

One of the reasons why lifelong learning has become so important is the acceleration of scientific and technological progress. Despite the increased duration of primary, secondary and university education, the knowledge and skills acquired there are usually not sufficient for a professional career spanning more than three or four decades.

Lifelong learners are information literate people who have learned how to learn. They know how to learn because they know how knowledge is organized, how to find information, and how to use information in such a way that others can learn from them. (American Library Association, 1989). Information literacy is a survival skill in the Information Age. Instead of drowning in the abundance of information that floods their lives, information literate people know how to find, evaluate, and use information effectively to solve a particular problem or make a decision—whether the information they select comes from a computer, a book, a government agency, a film, or any number of other possible resources.

Technology has an enormous impact on how we learn. Professionals can regularly update their knowledge and skills to remain updated in their own areas of interests. With internet technology like e-learning / distance learning, Cloud Storage (such as Google Drive), network file sharing, etc, it has become easier to continue learning using opportunities at any time. In today's information society, the most important learning outcome for all students and professionals is their being able to function as independent lifelong learners. The essential enabler to reach that goal is information literacy. Information literacy forms the basis for lifelong learning. It is common to all disciplines, all learning environments, and to all levels of education. It enables learners to master content and extend their investigations, become more self-directed, and assume greater control over their own learning.

In the global world of today, the growth of the knowledge-based economy recognizes the importance of knowledge and innovation along with reliance on technology and demand for both, traditional skills and new competencies. People therefore, need access to learning on an on-going, continuous, and lifelong basis. Understanding the scope of 'new media' can be useful for professionals engaged in development work. New media refers to those digital media that are interactive, incorporate two-way communication, and involve some form of computing as opposed to 'old media' such as telephones, radio and TV (Logan, 2010). New media have different forms of production and reception as compared to older media. New media are categorized by interactivity (Narayan & Narayanan, 2016). Professionals in all fields need to feel comfortable using new media optimizing their efforts and demonstrating impact of their interventions.

A wider participation in lifelong learning can be expected to enable people to become more aware and knowledgeable about environmental issues and the ways

in which they might lead a more sustainable lifestyle. Increased levels of knowledge and skills are the means of developing innovative solutions to the problems of sustainable development. Lifelong learning contributes to the development of society through the achievement of other social goals such as civic participation, sustainable development, improved health and wellbeing, reduced crime and greater social cohesion.

Part 2: Characteristics of Lifelong Learners

The qualities of a learner identified in a UNESCO report (2001) titled "Revisiting Lifelong Learning for the 21st Century" are: an active and creative explorer of the world; a reflexive agent; a self-actualizing agent; and an integrator of learning. The challenge for the lifelong learner is the so-called integration of thinking, feeling and action.

The attitude, skills and behaviour of lifelong learners differentiate them from others as they accept challenges and never give up. In fact, lifelong learners thrive in challenging situations. They find opportunities for experiential learning to build their own life skills experiencing happiness and fulfillment. In working towards their goals, they seldom complain of boredom and lack of opportunities.

2.1. Attitude

Attitude is a predisposition or a tendency to respond positively or negatively towards a certain idea, object, person, or situation. Attitude influences an individual's choice of action, and responses to challenges, incentives, and rewards:

- Attitude toward self – a positive self-image and self-esteem are important characteristics of a lifelong learner. LLL recognizes and accepts own strengths and weaknesses and is aware of the opportunities and threats within the given environmental constraints.
- Attitude towards others – others are perceived as important for interacting with them in his own life journey. Criticism by them is not taken negatively and LLL avoids being judgmental even when views are different.
- Attitude towards issues – an open mind is pre-requisite for being a lifelong learner. Readiness to learn helps understand the pros and cons related to issues for making informed choices.
- Attitude towards technology – making optimum use of available technologies to be updated requires positive attitude towards learning new technologies - simple or complex - and not feeling shy seeking help from others.
- Attitude towards participatory methodologies – using participatory methodologies requiring transparency and accountability can be threatening for a person who lacks self-confidence, creativity and self-esteem.
- Attitude towards accepting challenges – some people just like to face or create challenges in their lives for the simple thrill that it gives them. Lifelong learners belong to that category who thrive in challenging situations!

- o Attitude of gratitude – a feeling of being blessed and gratitude to the Almighty gives serenity and graciousness. Acknowledging the contribution of others in self-achievement also promotes an attitude of helping others and mentoring some.

2.2. Skills

Skills are abilities and capacities acquired through deliberate, systematic, and sustained effort to smoothly and adaptively carry out complex activities or job functions in personal or professional lives:

- o Skills related to understanding self - self-awareness is an important thinking or cognitive skill. By doing SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis of themselves, lifelong learners are able to accept their limitations and make realistic plans.
- o Skills related to problem solving and decision making – it is jokingly said for some people that they “create problems for themselves”. It is because lifelong learners enjoy the process of solving problems, using creativity and testing the outcomes of their interventions.
- o Skills related to planning and goal setting –an understanding of the available resources, human and material, provides insights for effective planning and goal setting.
- o Skills related to inter-personal relationships –social interactions are considered important therefore, efforts are made to establish and maintain smooth relationships.
- o Skills related to effective communication –the usefulness of diverse communication channels - personal, impersonal, electronic – is well understood by a lifelong learner.
- o Skills related to advocacy – being an advocate on specific issues or programmes requires passion and commitment indicated by spending time, energy and money by the LLL.
- o Skills related to controlling emotions – being in control of one's anger and emotions are crucial for being a lifelong learner.

2.3. Behaviour

Behaviour is a response of an individual to an action, environment, person, or stimulus:

- o Assertive behaviour- assertive people are truthful with high self-esteem. They value others and have empathy and compassion for them. Additionally, respect is completely reciprocal. As a consequence, their interactions tend to be comparatively devoid of serious conflict. Lifelong learners tend to be assertive rather than aggressive or passive.

- o Un-learning to learn- lifelong learners have a propensity to un-learn discarding the old to create space for new. This attitude reflects in their behaviour of being keen observers to learn from every situation and experience.
- o Role model - lifelong learners can serve as role models as they guide people in the right direction for making life decisions, providing inspiration and showing how to live a fulfilling, happy life.
- o Humility –even though knowledgeable, lifelong learners do not have the feeling of “I know it all”. There is humility in learning from others, even younger and people with different views and abilities.
- o Persistence – not giving up an idea in spite of obstacles is a unique quality of a lifelong learner. ‘Finding a reason to do and not an excuse for not doing’ characterizes an LLL.

The characteristics of a learner are beautifully described in a UNESCO report (UNESCO, 2001) “the adult with a capacity for true maturity is one who has grown out of childhood without losing childhood’s best traits. He has retained the basic emotional strengths of infancy, the stubborn autonomy of toddlerhood, the capacity for wonder and pleasure and playfulness of the pre-school years, and the idealism and passion of adolescence. He has incorporated these into a new pattern of simplicity dominated by adult stability, wisdom, knowledge, sensitivity to other people, responsibility, strength and purposiveness (Stone and Church, 1973, p. 499).

Part 3: Sharing Insights

Writing this paper was an opportunity for self-reflection to trace my journey through different stages of life and how I have retained my enthusiasm to be a learner – young in spirit - feeling blessed to be able to put my experience and new ideas into action. In this paper, I am only sharing my experiences of the past five years of active volunteering with drug abusing adolescent boys in conflict with law. The learning of the past four decades are contributing to make my journey exciting and meaningful, enriching me to grow professionally and spiritually.

Professional development is empowering oneself through building one’s life skills to achieve excellence in work and improving one’s quality of personal and professional life. Dr Malcolm Knowles’s assumptions of andragogy are relevant in the context of my journey: first, the feeling of being an independent learner without any constraint; second, carrying lifetime of rich experience; third, seeing immediate application of the learning; and fourth, driven by an internal as opposed to an external need to learn. Maslow’s theory seems to be applicable having reached a stage in life that has been blessed and basic needs fulfilled over a period of time.

3.1 Background

Literacy, Library and Life skills (3Ls) were incorporated in the Juvenile Drug De-addiction and Rehabilitation Centre managed by the Society for Promotion of Youth

and Masses (SPYM) through a pilot intervention project taken up in 2012 for empowering drug abusing adolescent boys in conflict with law. The purpose of starting the literacy cum library project "*Padai Ka Maza*" (PKM) was to impart functional literacy skills to non-literate adolescents; sustain and improve the literacy skills of neo-literates; and enhance their life skills. The activities after admission and detoxification include the 12-step programme as a set of guiding principles recommended by the Alcoholics Anonymous (AA) and Narcotics Anonymous (NA). These include Yoga and meditation, 'Just For Today', Child parliament, Counselling, Sports, and Vocational training. After three years of completion, the PKM project incorporating literacy, library and life Skills education has become an integral part of the SPYM programme. Halfway Home provides opportunity for those boys who continue to stay on after completing their mandatory 3-month period in the rehab till such time that they feel confident to face the world outside. Some even return after a gap to serve as Volunteers. Majority of them are in the age group 15 to 18 years, belong to lower socio economic group and are school dropouts or have never been to school. The drugs most commonly used are Cannabis, Opium and Inhalants. The most pressing reason for indulging in drugs is peer pressure. At the time of admission, half of the boys had a family drug history and more than half of them started taking drugs from the age of 10 to 14 years. Amount of money spent on purchasing drugs every day ranged from Rs. 100 to Rs. 2000. More than half of them were involved in anti-social activities to meet the expenses. Most of the boys were caught in the charge of theft followed by robbery and murder.

The library programme offers lively engagement, generating awareness and inspiring to seek knowledge, character building, self-expression, and academic support. The boys find art and craft therapeutic. Empowering them through enhancing their life skills is a vital component of the PKM programme. A very intensive, participatory and transparent methodology was used for development and field testing modules that are now ready to be shared with a wider group of field functionaries working with adolescents. Stories of change narrated by the boys have been published in Talking Comics "*Meri Bhi Suno*" Part 1, 2 and 3. These are being used as reading materials to strengthen literacy skills and discuss implications of drug abuse and conflict with law. Success stories of boys have been printed in a booklet "*Badli Soch*" (Changed Thinking). These have also been made as one-minute animation films by students of the Lady Irwin College. The films can be seen on computer, television and also on Mobile Phone screens. All the reading materials and games developed have been shared in Aseem's Libraries in Shelter Homes run by NGOs in Delhi.

3.2 Key lessons learnt

Building Literacy skills

- Majority of the boys are not literate. They are either school dropouts or have never been to school. *Motivating them and sustaining their interest* for literacy is not easy. Their association with books and learning is unpleasant because

of their experience in school. The family and social environment also does not make them appreciate the relevance of literacy. Creating an environment to make learning as a fun activity is a big challenge.

- The boys are in the centre only for a *limited period of three months*. This duration is very inadequate for bringing about change in their attitudes and behaviour. In the first few weeks, they are disoriented due to drug effects and it takes them time to get interested in the activities.
- The *group composition* changes with newcomers every day posing challenges for the staff working with them. While some boys get motivated to use this period of detention as opportunity to improve their literacy skills and pursue further education, many of the non-interested ones simply distract them and cause disturbance. Forming functional groups is very challenging. For the non-interested boys, keeping them engaged so that others can learn becomes the prime focus of working with them.
- *Assessing literacy status* at the time of admission and release is an important indicator of progress made by everyone. *Giving visibility* to progress made by the learners is very important. *Recognition* of boys who show progress sustains their motivation to continue learning while inspiring others. Many of them do not feel confident that they can learn. During the weekly sharing meeting, new learners are provided opportunity to share the books read by them, showcasing their skills and instilling confidence in them.

Improving Life skills

- The boys have several unanswered queries related to sexual and reproductive health. They do not have access to authentic sources of information and need scientific information and skills for making informed choices. *Question box* activity is very popular in eliciting queries of the boys especially related to sexual and reproductive health. Anonymous chits put in the question box are answered by a resource person.
- *Gender sensitivity* has been incorporated as an important component in the materials developed. Some issues related to the process of growing up in girls and understanding of their body parts are of interest to the boys. The female staffs are generally hesitant in transacting these issues. It was found that a peer educator, after being trained by a female staff one-to-one, was very effective in conducting a session on growing up in adolescence using flip charts.
- Building *life skills of the volunteers* is crucial for them to avoid relapse and gain self-confidence. The idea of developing them as peer educators has been accepted in principle but in practice it is difficult to follow. The challenge is to convince the management to spare time for them to be involved in training and actual transaction. It is also difficult to retain the volunteers.
- While progress in literacy skills is easy to assess, it is difficult to *assess the life skills* improvement in the boys because of absence of readily available tools and methodology for assessment.

- The processes for development of communication materials by the boys, of the boys, and for the boys have been very *innovative, participatory and transparent*.

Capacity building of field level functionaries

- It is difficult to get trained and sensitive staff to work with juveniles. Their skills need to be upgraded and they also need mentoring.
- Teaching in a multi-grade class poses several challenges that are difficult to handle by the staff who are not very competent and require hand holding and guidance. The group composition varies in terms of level of literacy skills and interest in learning.
- All the boys are school dropouts. Their stories reveal the insensitivity of the school teachers. It is very important to sensitize the teachers and educational authorities to the problem of drug abuse; identifying vulnerable boys; and taking timely action to avoid their getting addicted to drugs.

Vocational skills training

- Building vocational skills for livelihood is important. However, since juvenile drug addicts are making easy money through anti-social activities, it is not easy for them to appreciate the value of hard work and honest living. The fear of police is overcome when they openly talk about corruption in the police force. Problems faced are considered to be because of poverty. "Just For Today (JFT)" activity focusing on introspection/meditation and spirituality does enable them to a higher goal in life and is one of the most liked activity in the centre.
- Illiteracy is a big handicap for vocational training. Most of the vocational courses available have a minimum eligibility of 8th standard for certification by the Industrial Training Institutes (ITIs).
- Teaching-learning materials for non-literate boys are not available.
- Very few boys after vocational training take their jobs seriously. Need for discipline and punctuality is just not appreciated. Even the family environment for most of them is not encouraging.
- Placement agencies are not ready to take them because of the stigma of being drug addict boys in conflict with law.

Research and documentation

- Advocacy is needed for issues related to substance abuse in youth as well as showing the impact of treatment and rehab interventions. For evidence based advocacy, research of relevance is required.
- NGOs neither have the resources nor the technical competency to invest in quality research. Within the given constraints, best results can be achieved if faculty members and postgraduate students of academic institutions

collaborate to conduct meaningful research that can be useful at the grassroots level.

- For assessing the impact of project interventions, 'Most Significant Change' (MSC) technique as a participatory monitoring and evaluating tool has been used. It is a qualitative technique that captures the nuances and multi-directional aspects of change that cannot be captured through quantitative processes. Since it brings out data in the form of stories written by people, it provides detailed insights not only about the significant change but also the various process factors which facilitate the change. MSC technique involves the collection of stories at different levels of the intervention (for example programme staff, vulnerable youth and interns) and collectively deciding on the most significant change stories based on the selected themes (called domains). In fact, reporting 'most significant remembrances' of the month by each person has become a regular feature of the PKM review meetings.

Follow-up of the Boys in-recovery

- After a period of three months, when the boys are discharged, there is need for follow up with the boys in-recovery. This is an intensive process. Due to resource limitation, this is carried out only through telephone which is not very effective. However, SPYM "Parivar Milan" (family reunion) or contact programmes are now being organized on a regular basis twice a year.
- Most of the boys have dysfunctional families. Contact with families of the boys during and after three months is limited. On discharge from the centre, they go back to the same environment that pushes them back into drug abuse. Families are not supportive and many disown them due to their behavior. Boys do not have role models at home. Most of their fathers are also drug abusers. The boys are witness to gender violence at home.
- *Halfway home* for the boys in-recovery is a very useful stepping stone especially for those who do not feel confident to face the world outside and resist peer pressure. These boys volunteer to stay on in the centre and even get a token honorarium for their services rendered in managing the centre. In fact, this unique arrangement differentiates the SPYM-JDC from other juvenile centres where one sees security guards. It makes them appreciate the value of honesty and hard work.

Conclusion

As the debate on lifelong learning resonates throughout the world, there needs to be more discussion on how this concept will be put into practice. The rhetoric on lifelong learning must be matched with evidence of how it works and how it will contribute to creating more humane societies (UNESCO, 2001). Lifelong learners equipped with life skills seek or create spaces for experiencing happiness and satisfaction in their personal and professional lives. They have a positive attitude and

flexibility to adapt themselves to different situations and thrive in challenging situations finding opportunities for experiential learning. Lifelong learners can find reasons to be optimistic and happy rather than finding excuses for grumbling. They work towards achieving excellence in whatever they do – even in self-created difficult situations – without complaining of boredom and lack of opportunities. While lifelong learning facilitates improving one's life skills, it is also true that a person with life skills is a lifelong learner. Life skills empower a person for personal and professional development.

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A Pattern for Modeling Instructional Process for Design of eLearning Systems-Quality, Scale and Variety

**Sridhar Chimalakonda
Kesav V. Nori**

The world has undergone a rapid transformation into digital age with over an estimated 7 billion mobile users and around 2.4 billion Internet users worldwide (Sanou, 2014). However, the same world has an estimated 775 million young people and adults who are unable to read or write even in the digital era (UNESCO, 2014). More surprisingly, India itself has around 37% of them, who are beyond the age of schooling, speak their language, but cannot read or write and spread across 22 Indian Languages (UNESCO, 2014).

In addition, according to reports from Government of India, the present average of adult illiterates taught by instructors is around 10, whereas even assuming 200 adult illiterates per year for 5 years would still need a dedicated force of 287,000 instructors. The National Literacy Mission (NLM) of Government of India (GoI) has been striving to address this challenge since 1988 and has created a uniform methodology for teaching adult illiterates across India (NLM, 2016). In the literature, there were several efforts of using technologies like radio, television and even mobiles to reach adult illiterates (Patel, 2002)(Wagner & Kozma, 2005)(Dighe, 2010)(Abraham & Dubey, 2013).

A technology initiative by Tata Consultancy Services (TCS), an Indian Software Consultancy Services firm, as part of their Corporate Social Responsibility program consists of 9 eLearning Systems for 9 Indian Languages and has made around 120,000 people literate (TCS, 2016). While these experiments have yielded good results, the instructional design was constant and the eLearning Systems are monolithic in nature making their customization a hard task, which is a dire need for adult literacy challenge in India. We summarized our research on design of educational technologies from a software engineering perspective in (Chimalakonda & Nori, 2013).

How to facilitate design of eLearning Systems to teach Reading, wRiting and basic aRithmetic to 287 million adult illiterates in India spread across 22 Indian Languages with varying instructional designs (varying goals, processes and content)?

In this paper, we propose a pattern to systematically model instructional process such that it can be varied for multiple contexts both from pedagogy as well technology perspective.

Theoretical Basis

Literacy is one of the key factors in defining socio-economic progress of a country. According to NLM, literacy is defined as “acquiring the skills of reading, writing and arithmetic and the ability to apply them to one’s day-to-day life” and more specifically the focus has been on functional literacy that includes:

- Self-reliance in 3 R’s (Reading, wRiting, aRithmetic)
- Becoming aware of the causes of deprivation and moving towards amelioration of their condition by participating in the process of development
- Acquiring skills to improve their economics status and general well-being

Improved Pace and Content of Learning (IPCL) is a well-established approach and a methodology for teaching 3Rs to adult illiterates in India (DAE, 2003). It was designed with the intent of providing a base of instructional design for official Indian Languages and allows content creators to adapt it for varied contexts across India. In this paper, we consider instructional design as an underlying structure consisting of different aspects of instruction like goals, process, and content aimed at (i) providing a base for quality of instruction and (ii) facilitating design of educational technologies.

Instructional process is one of the critical aspects of instructional design as it facilitates the fulfillment of goals through a systematic process. However, most of the times it is not explicitly modeled by making it difficult for design of educational technologies. In this section, we will look at a commonly accepted way of teaching in the context of adult literacy in India based on IPCL methodology (DAE, 2003) and present a structure for organizing this knowledge into a pattern. We discuss the instructional process in detail along with teaching philosophy as it forms the basis for a pattern that could be instantiated thousands of times for all Indian languages and dialects.

Teaching is a process to help the student move from known (cognitive foundations) to build the understanding of, or the derivation of, the previously unknown in a stable and confident manner. Processes are best organized when they have clearly articulated goals. The overall goal for literacy is the ability to read and write so as to fulfill normal (functional) tasks in day-to-day living in an informed and enabled manner. This needs social awareness of regional and national identity, the needs of a civil and healthy society, and aspirations of the individual, the family, the village, the local region and the country as a whole. The first step towards achieving these goals is to focus on 3Rs and use that as the foundation to slowly learn the rest by reading more material and through other sources of learning. For adult learners, literacy instruction can be facilitated by choosing to deploy a socially or functionally relevant theme to provide the corpus for teaching the 3Rs. This theme is only a vehicle to carry the instruction of the 3Rs, that is, what are learnt is the 3Rs, with the side-effect that a meaningful social awareness is also created. The theme provides us with familiar words and

phrases which provide the cognitive foundations on which we build further understanding. The end goal of this whole instruction is to understand the real foundations of language (for the purposes of reading and writing) that underlie the cognitive foundations arising from everyday experience, the fundamental sounds depicted by the alphabet, their associated visual representation through script, the sound formation rules that build complex sounds of syllables from the basic or pure sounds of the alphabet along with script formation rules, juxtaposition of syllables to form words, and juxtaposition.

However, connecting this teaching philosophy to eLearning or multimedia space requires a deeper understanding. One of the basic gaps between textbooks and teachers are time and space elements. Teaching happens in time, and teachers make use of the space available on the blackboard, whereas textbooks do not have any notion of time to understand the intrinsic logic embedded in the ideas presented therein, appealing to the rationality in the learners, and therefore do not have any dynamics of presentation of ideas (traditionally through the use of the blackboard). Multimedia is suitable for *teaching*; multimedia instruction material must make effective use of teaching-time, and can use the screen as a substitute for the blackboard. In addition, it can use animation and speech to visually as well as aurally present dynamics in the presented ideas. It is said that the human mind is much better at appreciating static structure, spatial organization, and not so good at the dynamics within such spatial organization. Multimedia presents a medium to cope with cognition through dynamics. Tinkering, trying things out, by their very nature of articulation as verbs, involve action and therefore change. Multimedia can depict the change as it happens and therefore is a good teaching medium.

In the next section, we discuss the state of art from adult literacy and technology design perspective followed by the proposed *Process Pattern* and its application.

State-of-the-Art

The UNESCO CONFINTEA at an international level (UNESCO, 2010) and NLM at national level have devised several initiatives to battle the challenge of adult literacy in India in the past several decades (NLM, 2016). India has a long history of using ICTs for adult literacy (Patel, 2002)(Wagner & Kozma, 2005)(Dighe, 2010)(Abraham & Dubey, 2013). A radio forum to reach adult learners was experimented as early as 1976 and satellite televisions are used in (Patel, 2002) with computer and laptop based solutions for literacy in (TCS, 2016) and (Akshar+, 2016) respectively. TCS, an Indian Software Consultancy Services Company has developed eLearning Systems for 9 Indian Languages and also for languages like Urdu, Moore, Spanish and Arabic (TCS, 2016). An approach based on same language subtitling for songs delivered on television increased motivation of learners (Kothari, 2008)(Kóthari & Bandyopadhyay, 2010) but focused only on reading skills and is not interactive. The Bridges to the Future Initiative (BFI), is a multinational effort that aimed at improving literacy using technology (Wagner, et al., 2010)but the focus was on children rather than adult

literacy population. It was designed only for one South Indian language (Telugu) because of resource constraints (Wagner, et al., 2010). Hole-in-the-Wall project is another successful initiative based on minimal invasive education but was aimed at children (Mitra & Rana, 2001).

To harness the emergence of mobiles in developing countries for literacy, a few approaches based on mobile-tablets have been proposed mainly to impart reading skills (Wagner, 2013). A landscape research review of mobiles for reading outlines the need for extensive further research to validate the effectiveness of mobile technologies (Wagner, 2013)(Wagner, et al., 2014). A study focusing on adult literacy using mobile phones shows promises as well as several challenges(Chudgar, 2014), mainly in terms of developing the mobile apps for varied languages. Visibility of alphabets on low-end mobile phones is another issue with use of mobile phones in the context of adult literacy even though it can be addressed if smart phones are available at lower cost in the future. Initiatives like "Edu Tab" device focus on facilitating adult literacy in India (Megalingam, et al., 2012), but their effectiveness from pedagogy perspective is unknown as they use their own instructional process and material. A review of tablet software for improving adult literacy suggests the use of games for increasing learner engagement (Browne, et al., 2014) but the tablet software is designed for English and requires significant development effort if it has to be designed for the scale and variety goal of this thesis. A report from Indian journal of adult education summarizes the use of ICTs for adult literacy and their inadequacy for mass scale of India (Dighe, 2010).

A study from 2011 census data emphasizes the inadequacy of current programmes for adult literacy in India and anticipates that it might take 2050 to achieve 100% literacy rate using current approaches (Motkuri, 2013). A research agenda post-2015 for learning and literacy lists 10 key priorities emphasizing the need for technology to be available in the local language of instruction particularly in developing countries (Wagner, 2014). The article also underlines the need for basis of pedagogy for ICT-based solutions for improving quality of instruction in literacy(Wagner, 2014), which is severely lacking in most of the current technologies (Wagner, 2014). On the other hand, an analysis of the literature on technologies for adult literacy alleviates the following key concerns relevant to this paper:

- Teaching adult illiterates requires a different pedagogy (DAE, 2003)(Dighe, 2005)
- Lack of pedagogical basis for ICTs dents quality of instruction (Goodyear, 2002)
- Existing work focuses on designing educational technologies based on a fixed instructional design and process and is not designed for the scale of 22 Indian Languages and variants

How to adapt the instructional process for varied contexts including different kinds of teachers (mentor, trainer, coach, assessor) and learners (visual, auditory, read-write, kinesthetic)?

Process Pattern - A Structural Pattern for Modeling Instructional Process

The main structure for *Process Pattern* stems from instructional process of IPCL for adult literacy (DAE, 2003), which consists of:

- Three sets of primers (instructional material), each primer being an improvement on the other in terms of progression
- Each primer is an integrated one in the sense that it combines workbook, exercise book, tools of evaluation of learning outcome, certification, etc
- The primers are prepared through workshops involving creative thinkers, writers, linguists and artists, pretested and their suitability affirmed before actual application
- There are exercises at the end of every lesson and three tests in each primer
- The entire exercise is based on the principle of self-evaluation and confidence (rather than competition) oriented evaluation. The tests are intended to be simple, nonthreatening and participative
- Every learner is free to attain the desired level according to his/her leisure and convenience. It is, however, expected that a learner should be able to complete all the three primers within the overall duration of 200 hours spread over 68 months.

These high-level goals are gradually broken down into simpler sub-goals that all add up. The initial pace of learning is very slow, because the learners consciously understand that there is substructure below the cognitive foundations that come from everyday experience, and the learners are also subconsciously being exposed to a systematic method of discovering this substructure in a reasoned manner. The pace of learning can be speeded up after this basic approach is assimilated. Before we start the instruction for any goal, there should be a motivating prelude that provides an inspiration, so that the need to learn is 'bought' by the learners. The prelude need not be philosophical or lofty, but could come from role models within their own community, thereby giving cognitive credence to the served goal. After the instruction, there could be a postlude that summarizes what has been learnt, so as to keep the focus clear and sharp all through.

We consider a subject is a set of topics. The subject and each of the topics have learning goals and respective prerequisites. A set of lectures focus on a topic. Topics could have sub-topics with respective learning goals and prerequisites. This goes down recursively till there are basic instructions to be provided to elucidate the fundamentals of the subject or topic. Basic instructions have no further prerequisites, from within, though they could well have such prerequisites for the course as a whole or depend on knowledge presumed to be known to students. Basic instructions are elemental, or atomic in relation to teaching; as are fundamentals of the subject atomic with respect to learning. Basic instructions are delivered from first principles as it were; fundamentals form the first principles for reasoning in the subject.

This systematic method of pedagogy for adult literacy starts with what is already known through adult illiterate's use of language, segmenting the known words and cognizing the newly uncovered (syllable) structure, learning to recognize the new in all contexts and situations through play, and moving on to previously unknown but now cognized, rationalized, known and internalized entities or ideas. On an average, from our experience of analyzing IPCL approach, existing eLearning Systems for Hindi, Telugu, Urdu and Kannada; each one of them has about 20,000 visual components, 2,500 aural components, and 750 instructions arising from 24 to 28 lessons based on primers from SRCs and NLM. These can be organized better in the following way:

- Each *lesson* is treated as a play or a drama
- Each *play* consists of a sequence of acts
- Each *act* consists of a sequence of scenes
- Each *scene* consists of a sequence of instructions
- An *instruction* is where the work of teaching is undertaken. *Plays*, acts, and scenes are conceptual organizational structures. They provide convenient points in teaching for conveying motivation to learn, inspirational messages, putting forth exemplary role models amongst learners who have gone on to achieve.

Each *play*, *act*, *scene* and *instruction* has defined instructional goal and there are, on an average 750 instructions in a given eLearning System based on adult literacy primers.

The detailed instructional process is as follows:

- The process starts from common known words to speakers of a language, segments the words phonetically into syllables, then segments the syllables into simple sounds, which are then identified as alphabets of the language
- The visual pattern of the word as a whole is presented again and again till it is cognized with no conscious effort
- Aural segmentation is carefully orchestrated by the instructor, so that the phonetic alphabet is discovered Simultaneous visual segmentation of the word into syllables builds the correspondence between the sounds of the syllables and their scripted visual form. Again this is repeated till it sticks in the memory of all students, leading to learner paced instruction
- The teacher identifies the alphabets as new facts derived from known words and support activities are required to make these discoveries stick in the memory of learners
- Comparing words amounts to comparing syllables in previously seen words. Syllables that have similar sounds in them are then segmented based on the similarities; this exposes the dissimilarities, as well as leading to the discovery of phonetic alphabets due to the similarities
- Abduction is used to identify the cause that leads to dissimilarities

- Concatenation of sounds provides a basis for phonetic composition. These rules are inferred from examples. Concurrent rules are inferred for visual composition of scripted sounds to form syllables
- The set of phonetic alphabets discovered so far, and the set of rules for composition of sounds to form syllables and words, both in the visual and aural forms, form a relatively complete world of all words that can be deductively derived from them
- The complete alphabet of the language is known at the end of the Literacy instruction. Similarly, the complete set of rules for composition of sounds and their scripted forms are also known at the end. It is this completeness that allows induction to be the basis for their confidence that they can read or write anything expressed in their language. Inference and induction lead to deduction as a means for a complete approach to understanding the cause-effect relationships between phonetic alphabet and their scripted representation, and composition thereof.

Quality and Technology Perspectives

One of the fundamental factors affecting the quality of instruction during design of eLearning Systems is the lack of instructional basis (Goodyear, 2002). The proposed *Process Pattern* provides a goal-driven structure for modeling instructional process, however it does not include a strong philosophical attitude of instructional design. It is here we analyzed the literature in instructional design and realized that there are several ways of modeling instructional processes based on different instructional design theories or methodologies (Reigeluth, 2013). To improve the quality of instruction, we mapped *Process Pattern* to Merrill's first principles of instruction. Merrill has analyzed existing instructional design models and proposed that the following fundamental principles are critical to any instructional design (Merrill, 2012).

- Activation principle - reaching out to what students know
- Application principle - exercising their new knowledge
- Integration principle - accumulating or integrating what they have learnt recently with what was learnt in the past
- Demonstration principle - showing how this new knowledge can be used
- Task Orientation principle - getting students to solve problems

Each of these principles (activities) are repeatedly used in a specific order in the instructional process to fulfill goals. In addition to these principles, Merrill also proposed a deeper sub-cycle structure—guidance—coaching—reflection that strengthens these activities. For example a structure has to be provided for the learner as part of instruction while applying activation principle and necessary guidance has to be given to the learners during a demonstration activity. Generally, the *Process Pattern* involves some or all of these principles at different levels of granularity but the application of these principles becomes explicit for tasks at instruction level.

Figure-1 shows organizational structure of a lesson using the *Process Pattern*. The instructional process can be customized in terms of the number and order of the plays, acts, scenes, instructions as per varied requirements. For example, the first play, act and scene focus on providing motivation to the learner and the last instruction might be a summary of what has been learnt so far in a particular lesson. Again, this motivation can be an audio or video based on local context. Typically, we have figured out that a local folk song could be used for this purpose which can be a *Bojhpuri* song for *Hindi* belt or a *Bathukamma* song for *Telangana* region. This allows the learners to tightly bond with the technology and be able to sustain their motivation levels. Another most commonly used scenario with this pattern is to use the words that are familiar to learners like their names, names of their family members or relatives or names of their villages and use them to introduce alphabets. *Process Pattern* allows this customization of these structures *Variation points*

Fig. 1. Structure of instructional process with variation points
both at instructional process and technology level.

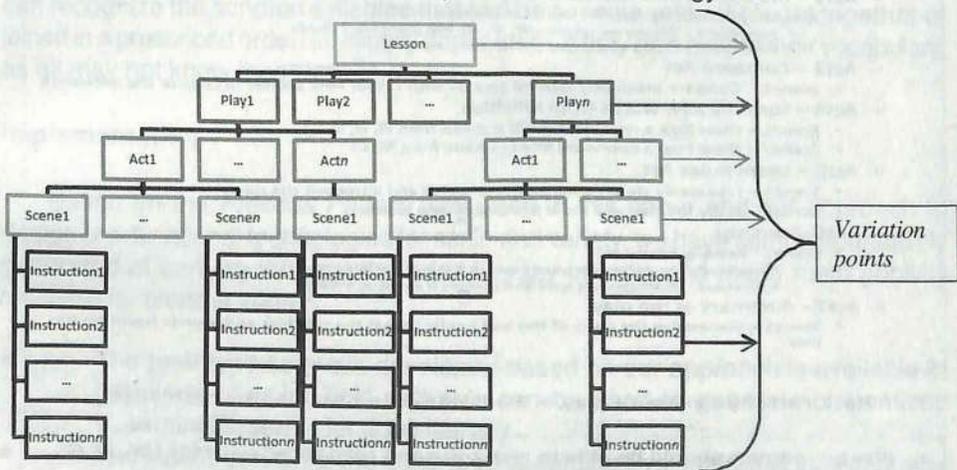


Fig. 1. Structure of instructional process with variation points

Figure-2 and Figure-3 show a fractional part of an example play based on this pattern for *Hindi* and *Telugu* languages respectively. In this example, there are several acts each having its respective goals, and consisting of specific scenes and further instructions. Each of these plays, acts, scenes, instructions act as placeholders for different kinds of instructions for multiple languages. This structure allows devising tools which can process them and generate customized eLearning Systems. In addition, these acts are generally mapped to Merrill's principles providing a theoretical basis. For example, Scene1 of Act2 introduces words that familiar to the learners essentially involving activation principle whereas learners have to use application principle in Scene2 of Act5 to form new words from existing syllables. Similarly, other instructions in the instructional process can be mapped to principles. While the number of lessons might vary, we discovered that the following types of standard acts in IPCL methodology:

- To introduce new sounds
- Use these new sounds to form words, both familiar and new
- Recapitulate sounds that have been learnt in previous lectures
- Combine previously learnt sounds with newly introduced sounds in this lesson to form words, both familiar and new
- Compare previously learned sounds with similar new sounds to cognize the difference
- Learn to create new sounds from old sounds from the above experience
- Combine newly created sounds with sounds learnt so far, including this lesson, to create words, both familiar and new
- Exercises, through jumbled words, and reading words not covered so far, but using only the sounds learnt so far

- Play1 – learners should be able to recognize and read three syllables (म, क, न), matra (ः) and their sounds
 - Act1 – Motivating Act with audio/video
 - Act2 – Introduces new sounds and syllables
 - Scene1 – introducing familiar words or phrases (मकान)
 - Instruction1 – Decompose syllables (म, क, न) into phonemes / sounds
 - Instruction2 – Repeat till cognized and remembered
 - Act3 – Compare Act
 - Scene1 – Compare previously learned sounds with similar new sounds to cognize the difference
 - Act4 – Forming new words from syllables
 - Scene1 – show how a new word नमक is made from न, म, क
 - Scene2 – show how a new word काका is made from क, ा
 - Act5 – Learn Rules Act
 - Scene1 – repeatedly show forming of new words and introduce the rules
 - Scene2 – apply the rule and show forming of new words
 - Act6- Exercises
 - Scene1 – Reading Exercises
 - Instruction1 – Identification at syllable level (ब, ह, ग, क, ज, ल, म, क, र, न, प)
 - Instruction2 – Identification at word level (Identify म and क in कमरा?)
 - Act7 – Summary of the play
 - Scene1 – Summarize the goals of this and briefly repeat the syllables and sounds learnt in this play

Fig. 2. Part of an example play in Hindi language based on Process Pattern

- Play1 – learners should be able to recognize and read three syllables (మ, న, ఊ, ఠ), matra (ః) and their sounds
 - Act1 – Motivating Act with audio/video
 - Act2 – Introduces new sounds and syllables
 - Scene1 – introducing familiar words or phrases (మనఊరు)
 - Instruction1 – Decompose syllables (మ, న, ఊ, ఠ) into phonemes / sounds
 - Instruction2 – Repeat till cognized and remembered
 - Act3 – Compare Act
 - Scene1 – Compare previously learned sounds with similar new sounds to cognize the difference
 - Act4 – Forming new words from syllables
 - Scene1 – show how a new word మఠ is made from మ, ఠ
 - Scene2 – show how a new word నఠము is made from న, ఠ, మ, ఊ
 - Act5 – Learn Rules Act
 - Scene1 – repeatedly show forming of new words and introduce the rules
 - Scene2 – apply the rule and show forming of new words
 - Act6- Exercises
 - Scene1 – Reading Exercises
 - Instruction1 – Identification at syllable level (క, ఖ, ర, మ, ట, న, ష, స, ఊ, ల, ల)
 - Instruction2 – Identification at word level (Identify మ and న in మనఊరు?)
 - Instruction3 – Identification at sentence level (Identify మ and న in మఠ మఠి ఊరు)
 - Act7 – Summary of the play
 - Scene1 – Summarize the goals of this and briefly repeat the syllables and sounds learnt in this play

Fig. 3. Part of an example play in Telugu language based on Process Pattern

Each of these acts can be standardized and at the same time customized for multiple languages and varied requirements. An act which introduces new sounds could start with a *motivating scene* and end with a *summary scene*. In between, there should be *scenes* that accomplish the teaching goal for the complex act. The scenes in this act, besides the enveloping motivating scene and the summary scene are:

- Introducing familiar words or phrases from the (Social Awareness) Theme;
- Identifying the new sounds and associating them with their scripted visual representation.

Similarly, an act to form words from known sounds, both familiar and new may be used several times in a lesson. The teaching goal for this act is to discover several short (two and three syllable) words that students may already know but now can recognize the scripted syllables that can be concatenated (brought together or joined in a prescribed order) to visually depict them. It may also extend their vocabulary, as all may not know these words.

Implementation

Based on the *Process Pattern* discussed in this paper and our approach to design of educational technologies for scale and variety, we have semi-automatically generated eLearning Systems for adult literacy in India and made them publicly available for broader impact:

- The prototype software developed based on our approach is available at <http://rice.iiit.ac.in>. This software can be used to generate customized eLearning Systems for adult literacy
- The mobile version of the generated eLearning System for Telugu Language is deployed on Google Play Store and is available at <https://play.google.com/store/apps/details?id=iiit.rice.al.telugu>
- The eLearning System is listed in the official websites of Department of Adult Education of Government of Telangana at <http://tslma.nic.in> and State Resource Center, Government of Telangana at <http://srctelangana.com>

Conclusion

The challenge of developing eLearning Systems for 22 languages and dialects in the context of adult literacy is hardened by the demand for customization of these systems for varied instructional processes. In this paper, we presented *Process Pattern* as a way for systematic modeling of instructional process based on well-established learning methodology of IPCL from National Literacy Mission. This *Process Pattern* provided the structure for customization of instructional process at

multiple levels (play, act, scene, instruction) catering to diversified contexts. We also discussed how the pattern can be mapped to Merrill's first principles for quality of instruction. We then demonstrated the pattern for a couple of examples for *Hindi* and *Telugu* languages followed by a brief discussion on implementation of the technologies. We see this research to be a stepping stone for applying the notion of patterns in instructional design to facilitate scale and variety not just in the case of adult literacy but in general to different kinds of education.

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Psycho Social Intervention for rehabilitation of Intellectually Disabled Children

B.P.Sahu

Disability is the inability to perform a normal bodily or mental process. It could either be complete inability to do something such as walking or it can be partial inability to do something. A person is regarded as disabled, because of a difference in appearances or behavior or even both. In most instances, a disabled person has functional limitations which lead to specific reductions in bodily functions and activity restrictions. There are hundreds of different disabilities and there are as many causes for these disabilities. Some people are born with disabilities while others become disabled later on in their lives. Some disabilities exhibit themselves only periodically like fits and seizures; while others are constant conditions and are life-long. It may be total or partial impairment of senses and physical and intellectual capacities. Others may be a handicap or deviation of a social nature, injury or illness or incapacities to accomplish physiological functions. The severity of some stays the same, while others get progressively worse with muscular dystrophy and cystic fibrosis. Some are hidden and not obvious, can be controlled and cured while others still baffle the experts. Thus, finding a consensus on the different and frequently varying definitions of disabilities, whether sophisticated or practical, has never been easy. However any type of disability has individual, cultural, social, economical and environmental consequences. Further disabled people do not form a homogenous group. They can broadly be classified as Physical, Communication, Learning, Mental and Medical Disabilities (Priestly, 2001)

Persons with disabilities have diverse personal factors that determine their behavior associated with their gender, age, socioeconomic status, sexuality, ethnicity or cultural heritage. Even though disability correlates with disadvantage, not all people with disabilities are equally disadvantaged. Women with disabilities experience the combined disadvantages associated with gender as well as disability, and may be less likely to marry than non-disabled women. Also, according to the World Report of Disabilities 2011, people who experience mental health conditions or intellectual impairments appear to be more deprived in many settings than those who experience physical or sensory impairments.

Three major overlapping periods define the life of a human organism. The prenatal period is launched from the moment of conception and continues until the beginning of a labor. All but the first few days of this period are spent within the confines of the womb. The Perinatal period, which can overlap with the prenatal period, dawns at about the seventh month of pregnancy and extends until twenty- eight days after

birth. This phase is associated with the impending birth, the social and physical setting for delivery and the baby's first adjustments to his or her new world. Among the events included in the perinatal period are the medical and obstetrical practices associated with delivery, and the preparations and care provided by parents and others to assist in the transition from the womb to life outside. The postnatal period, which can overlap with the perinatal period, begins after birth. The child's environment now includes the broader physical and social world afforded by caregivers and others responsible for the infant's continued growth.

Prenatal factors account for about one third of all cases of retardation and they are especially prominent in more severe degrees of intellectual impairment. Although, the role of a number of adverse prenatal events in causing retardation is relatively well understood, their specific impact is complicated by the time period that may intervene between the precipitating event and its actual detection (alcohol consumption in the first trimester of pregnancy and some later postnatal manifestations of fetal alcohol syndrome), and a likely interplay of individually adverse effects (Masland, 1958). Prenatal infection interfering with the developmental process can lead to multiple defects. The immature brain lacks the ability to repair damage, remove abnormal cells, and compensate for missing tissue. Abortions, spontaneous or selective, are common outcomes during the first trimester. Fetal infection occurs in about half of the mothers who contract rubella and, of those fetuses affected during the first trimester. Rubella virus, having crossed the placenta from the maternal circulation, has an affinity for the developing brain and cardiovascular system (Graham, 1992). Rubella virus can create minor motor difficulties, such as feeding problems, learning deficits, and behaviour disorders (Hanshaw & Dudgeon, 1972).

Intellectual Disability (ID) is accompanied by emotional or behavioural problems. People with severe ID have behavioural problems like self-stimulation, self-injury and aggression (Singh, 1997). The young people with ID are highly disruptive, self-absorbed and anxious. They suffer from communication disturbance, attention deficit hyperactivity and depression. These high levels of disruptive behavior contribute to parental burden (Howlin, 1998). As noted from different studies, behavioural problems and psychiatric disorders are more common among low birth weight infants (Elgen, 2002). Preterm Infants are at increased risk of behavioral, emotional, and neurological problems (Butta, 2002, Hack ,et.al.,2004 ,Botting, 1997). It has been observed that behavioural disorders occur together with neurologic and cognitive deficits attributable to prematurity (Nadeau 2001). Kolko (1988) studied the Social Competence factors of behavior problem of 200 children in child psychiatric unit. Behavioural Problem such as Self-control, Adaptive behavior factor, Defiance, Inattention, Depression, Self-injury and Anxiety were found among these children. Aberrant Behaviour Checklist (ABC) is a behavior rating scale that was originally developed to assess treatment effects in people with mental retardation (Aman, Singh, & Field, 1985). The ABC has five subscales such as Irritability, Agitation, Crying, (II) Lethargy, Social Withdrawal, (III) Stereotypic Behaviour, (IV) Hyperactivity,

and (V) Inappropriate Speech. The scale been used extensively to study the problem behavior in children and adults afflicted with mental retardation. (Muller, 2011) study shows that paternal psychological well-being as a significant contributor of the behavioural development of preterm children. Disruptive behavior disorders are associated with sequel that may result in serious consequences for both the child and society, including legal trouble, school suspension, substance abuse, and physical injury. Further tells that adequate and timely psychosocial support from the both parents might prevent, or at least reduce behavioural problems at risk infants (Kaarsen, 2008).

International Scenario

International Disabled Foundation (1998) reported that more than half a billion disabled live in the world which accounted for approximately one tenth of the total population. International Labour Organisation (ILO) Press Release of 2001 states that there are approximately 610 million persons with disabilities, of whom 80 percent lived in developing countries, predominately in rural areas. Developed countries have more accurate data collection systems through their census and surveys. The data of some of these countries (Paciello, 2000) are given as follows: 8.5 million in United Kingdom, 52.6 million in United States of America, 37 million in European Union, and 4.2 million in Canada are living with disability. This number rose dramatically over the next twenty-five years, both in rich and poor countries. World Report on Disability (2011) reported that one billion people or 15 Percent of the World's population experiences some form of disability or the other. In India the number of disabled population as per 2011 census was 26,810,557.

Indian Scenario

In India first and foremost disability census was conducted in the year 1872. It covered both physical and mental disabilities including leprosy. Collection of such information continued till the 1931 census, but it was discontinued in the subsequent census from 1941 to 1971. In the year 1981 Census of India again started to collect data on disabilities, and it covered only three categories of disabilities such as totally dumb, totally blind and totally crippled. In the year 1991, disability data was not included in the Census. In the year 2001 census for the disabled was resumed in the wake of sustained pressures from organizations in the field of rights and welfare of the disabled. The 2001 Census covered five types of disabilities: Seeing, Speech, Hearing, Movement and Mental disabilities. According to the 2002 survey, the rate of occurrence of any disability was 69 per 100,000 populations. However Census 2011, generated the information on eight types of disability, listed in the table below.

According to Census 2011, there are more than 7.8 million children with disabilities, constituting approximately 2 per cent of the total child population. The majority of them (58 per cent) are in the 10+ age group. Out of the total number of children with disabilities (CWDs), approximately 8 per cent suffer from mental

retardation. A study carried out by Indian Council of Medical Research (2005) noted that the mental illness leading to disability frequently goes un-recorded. It also noted that services for mental illness, especially in rural areas are limited. It also noted that services for mental illness, especially in rural areas are limited. Approximately 36 percent children in the age group of 6-13 years suffering from mental disability (of any type) do not have access to any institutional service and are out of school (National Survey of out of School Children 014; MOHRD, SRI-IMRB).

Table 1.1: Magnitude of Disability on the basis of their types in India

Sl. No.	Type of Disability	Males	Females	Total
1	In Seeing	2,638,516	2,393,947	5,032,463
2	In Hearing	2,677,544	2,393,463	5,071,007
3	In Speech	1,122,896	875,639	1,998,535
4	Movement	3,370	2,066,230	5,436,604
5	Mental Retardation	870,708	634,916	1,505,624
6	Mental Illness	415,732	307,094	722,826
7	Multiple Disability	1,162,604	953,883	2,116,487
8	Any other	2,727,828	2,199,183	4,927,011
Total		14,986,202	11,824,355	26,810,557

Source: Table C-20, Census of India 2011

As seen from the above table out of a total 26,810,557 disabled population, the persons afflicted with mental retardation were 1,505,624 and with mental illness were 722,826. The total disabled population was 2.21 percent of the total population.

Table 1.2: Percentage of Disabled (Rural and Urban)

Sl.No	Percentage of Disabled to total population India, 2011			
	Residence	Persons (%)	Male (%)	Female (%)
1	Total	2.21	2.41	2.01
2	Rural	2.24	2.43	2.03
3	Urban	2.17	2.34	1.98

Source: Census of India - 2011

Present scenario of Inclusive Education in North East India

There are 2, 68, 10,557 persons with Disabilities (PWDs) in India as per census 2011, constituting 2.21 % of the total population. The table reveals that the percentages of males are more than the females. The rural areas are having more number of disabled population than the urban areas.

Table 1.3: The enrollment of CWSN in the mainstream schools of North Eastern Region

Sl. No	Name of the State	Age Group 5-9 years	Age Group 10-19 years	Number of schools for Inclusive Education	Enrollment of PWD by 2013-2014
1	Assam	35,211	76,681	1,256	5,030 (4.50%)
2	Arunachal Pradesh	2,082	5,026	92	598 (8.41%)
3	Nagaland	1,937	4,631	58	322 (4.90%)
4	Manipur	3,973	9,107	147	560 (4.28%)
5	Mizoram	988	2,2169	216	809 (3.49%)
6	Tripura	4,114	9,764	287	708 (5.10%)
7	Meghalaya	4,459	9,624	65	148 (1.05%)
8	Sikkim	716	2,014	34	68 (2.49%)
Total		53,840	139,016	2155	8243 (4.28%)

Source: Census Report 2011, Ministry of Human Resource Development, Government of India.

The table depicts that Persons with Disability enrolled in Inclusive School by the year 2013-14 in the North –Eastern States. The enrollment in Arunachal Pradesh was 8.41% followed by Tripura with 5.10% of children. In the States of Nagaland, Assam and Manipur, the enrollment of children in the inclusive schools was 4.9%, 4.50% and 4.28%. In the state of Meghalaya, there are 65 inclusive schools which provide education for the children with disability. It is alarming in the state of Meghalaya. In the age group of 5-19 years of only 148 children were enrolled in the reference year. It is only 1.04 % of the total disabled children who are going to school in the state of Meghalaya. Meghalaya has the least number of enrollments of children in the inclusive school. The situation is alarming as in all the north eastern states the enrollment in inclusive schools was only 4.28 percent.

Intellectual Disability

Mental disability, Mental retardation and Intellectual disability have same connotation. Intellectual disability, earlier known as mental retardation, means that a person's mental development is much less than peers. Intellectual disability is characterized by significant limitations in both **intellectual functioning** and in **adaptive behavior**, which covers many everyday social and practical skills. The

term used to describe this condition has gone under constant change over the years due to social and political compulsions. It was changed in 2010, as the term mental retardation seemed to have negative connotations. Diagnostic and Statistical Manual, 5th Revision (DSM-V) has replaced it with ID and also found its place in the eleventh revision of International Classification of Diseases. Currently the term ID is being used instead of mental retardation.

According to International Classification of Diseases (ICD), Mental Retardation can be classified into Mild Mental Retardation (IQ: 50-70, Mental Age 9 to under 12 years), Moderate Mental Retardation (IQ: 35-49, Mental Age 6 to under 9 years), Severe Mental Retardation (IQ 20-34, Mental Age 3 to under 6 years), and Profound Mental Retardation (IQ 19 and below, mental age under 3 years).

Intellectual disability occurs due to different types of causes. The causes are most conveniently grouped according to the time frame in which they occur in relation to the development of the embryo, such as genetic and chromosomal factors, prenatal factors, perinatal factors and postnatal factors. The Characteristics of ID children are manifested as delay in development, slow reaction, absence of clarity, inability to learn fast, Inability to understand quickly, Inability to decide, Inability to remember, Lack of concentration, Lack of motor coordination and Age inappropriate behavior.

There is a strong inter-linkage between disability and poverty when the additional cost of living with a disability is taken into account. This is particularly true in households with children with disabilities. Filmer (2008) argues that, among school-age children (6-17 years) across 13 developing countries, disability-based school participation deficits are often larger than those associated with characteristics such as gender, residence in rural areas or the household's economic standing. Among children with disabilities in India, girls receive less care and education than boys and are more likely to die as a consequence. Women with disabilities in India face double discrimination due to the prevalence of traditional gender roles and expectations.

Theoretical Framework

The child with intellectual disability affects the family and the family environment affects his/her development and behavior. Children with intellectual disabilities affect their families differently while they pass through different stages of development. To study these effects, it is needed to look at the various theoretical premises for developing a conceptual framework of study.

Urie Bronfenbrenner (1917) propounded the "Ecological Systems" theory. He labeled different aspects of environment that influence children's development. They are microsystem, mesosystem, exosystem, and the macro system. The micro system is the small, immediate environment the child lives in. Microsystems include any immediate relationships or organizations they interact with, such as their immediate

family or caregivers and their school environment. Mesosystem, describes how the different parts of a child's micro system work together for the sake of the child (For ex: family members and school environment moulding the child behavior). The exosystem level includes other people and places that the child may not interact with often but that still have a large affect on. Examples for the exo system level can be in terms of parents' workplaces, extended family members, the neighborhood, and so on. So the concept of environment affecting the child is relevant in the present study as it gets in-depth and matches with all systems that influence the children's environment. Further it covers all aspects like biological, psychological and social environment for the growth and development of the child. The final level is the macro system, which is the largest and most remote set of people and things to a child but which still has a great influence over the child. The macro system includes things such as the relative freedom permitted by the national government, cultural values, the economy, wars, and similar things. These can affect a child either positively or negatively.

Mike Oliver (1983) propounded the theory of "Social model of Disability". A fundamental aspect of the social model concerns equality. The struggles for equality are often compared to the struggles of other socially marginalized groups. Equal rights are said to give empowerment and the "ability" to make decisions and the opportunity to live life to the fullest. Social model of disability focuses on changes that are required in society. These might be in terms of: Attitudes, Behaviors, and Social support. Behaviors like not underestimating the potential quality of life of disabled people will create inferior complex in their minds of disabled persons. For example in the form of social support help dealing with barriers; resources, aids or positive discrimination to overcome them. Social model of disability implies that attempts to change, "fix" or "cure" individuals, especially when used against the wishes of the patient, can be discriminatory and prejudiced. This attitude, which may be seen as stemming from a medical model and a subjective value system, can harm the self-esteem and social inclusion.

The Cell-Assembly Theory was developed by Donald Hebb (1949). In this theory, he explains that perception may be understood in terms and functions of the central nervous system which correlates to stimulation. It involves the activity of collections of neurons from brain that takes place in such way as to form associations both sensory and sensory motor activity. In the central nervous system the neurons are main component. It has to be activated in right manner to the child. Brain is the most vital part of the human body. It has 3000 neurons and connected with cells. It is also called transmitter of feeling, and emotion of the child. The stimulation should be properly activated to perform better activity. In this study the stimulation towards the children by various people like teachers, parents and neighbors play vital role. So that child can learn things, easily and respond to the action quickly.

Cognitive behavioral therapy (CBT) was developed by Dr. Aaron T. Beck (1960),

a psychiatrist at the University of Pennsylvania. The theory is a form of psychotherapy. It was originally designed to treat depression, but is now used for a number of mental illnesses. It works to solve current problems and change unhelpful thinking and behavior. The name refers to behavior therapy, cognitive therapy, and therapy based upon a combination of basic behavioral and cognitive principles. Most therapists working with patients dealing with anxiety and depression use a blend of cognitive and behavioral therapy. This technique acknowledges that there may be behaviors that cannot be controlled through rational thought, but rather emerge based on prior conditioning from the environment and other external and/or internal stimuli. Thus CBT is "problem focused" and "action oriented". The Therapist tries to assist the client in selecting specific strategies to help address those problems, or directive in its therapeutic approach. It is different from the more traditional, psychoanalytical approach, where therapists look for the unconscious meaning behind the behaviors and then diagnose the patient. CBT has been shown to help with many different types of problems. These include: anxiety, depression, panic, phobias (including agoraphobia and social phobia), stress, bulimia, obsessive compulsive disorder, post-traumatic stress disorder, bipolar disorder and psychosis.

McCubbin and Patterson (1983) developed the Double ABC- X model of stress and coping. In this model, a parent's ability to cope with a stressful situation is determined by the interaction of the stressor event and subsequent life stressors, family resources, parental perceptions and coping strategies. Whether having child with disabilities leads to stress or adaption will depend upon the explanations made by the family, their understanding of occurrence of events and what existing coping strategies they may use to alleviate stress. The model enables the parents to adopt the coping strategies to decrease the level of stress from children.

Problem

Intellectual disability is characterised by significant limitations both in **intellectual functioning** (reasoning, learning, problem solving) and in **adaptive behavior**, which covers a range of everyday social and practical skills. The evaluation and classification of intellectual disability is a complex issue. There are three major criteria for intellectual disability: significant limitations in **intellectual functioning**, significant limitations in adaptive **behaviour** and onset **before the age of 18**. These skills are: 1. Conceptual skills-language and literacy; money, time, and number concepts; and self-direction. 2. Social skills-interpersonal skills, social responsibility, self-esteem, gullibility, social problem solving, and the ability to follow rules, obey laws, and avoid being victimized. 3. Practical skills-activities of daily living (personal care), occupational skills, healthcare, travel/transportation, schedules/routines, safety, use of money, and use of the telephone. There are a number of causes of this type of disability. The understanding of the causes of intellectual disability focuses on the types of risk factors (social, behavioral, and educational) and the timing of exposure (prenatal, perinatal, and postnatal) to those factors. The overarching reason for evaluating and

classifying children with intellectual disabilities is to tailor supports for each child, in the form of a set of strategies and services provided over a sustained period. The challenge for us, is to enhance their functioning within their own environment in order to lead a more successful and satisfying life.

The Preamble of the Charter of United Nations affirms the dignity and worth of every human being and gives primary importance to the promotion of social justice. Persons with disabilities are, de-facto, entitled to all the fundamental rights upheld by the Charter Article 25 of the Universal Declaration that states each person has the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in the circumstances beyond his control. The United Nations declared 1981 the International Year of Disabled Persons, and adopted the World Program of Action concerning Disabled Persons (1982). UN also declared the Decade (1983-1992) as decade of Disabled Persons. Since then, the attention towards the disabled people and the need to promote their welfare came into the forefront. The Asia Pacific Region was the first to follow up with a regional Decade of Disabled Persons in 1993 since approximately 400 million of the world's 600 million disabled people live in the region. A dominant problem in the disability field is the lack of access to education for both children and adults with disabilities. As education is a fundamental right for all, enshrined in the Universal Declaration of Human Rights, and protected through various international conventions, this is a very serious problem. In a majority of countries, there is a dramatic difference in the educational opportunities provided for disabled children and those provided for non-disabled children. It will simply not be possible to realize the goal of Education for All if we do not achieve a complete change in the situation (Benqt Lindquist, 2007).

Most women experience both pride and apprehension when they learn they are pregnant. The opportunity for human conception begins about the 14 days after the start of the menstrual period. At this time, a capsule- like follicle housing a primitive egg cell in one of the ovaries begins to mature. As it matures and changes position, the follicle eventually ruptures and discharges its valuable contents from the ovary. After being expelled, the egg cell or ovum is normally carried into the fallopian tube. This organ serves as a conduit for the egg, which moves toward the uterus at the leisurely rate of about one- sixteenth inch per hour. The fallopian tube provides a receptive environment for fertilization if sperm are present. If unfertilized, the ovum survives only about twenty hours. Sperm reach the fallopian tube by maneuvering from the vagina through the cervix and uterus. Sperm can migrate several inches an hour with the assistance of their tail-like appendages. With each ejaculation, 300 to 500 sperm typically negotiate the approximately ten- hour trip into the fallopian tube to reach the egg. These usually survive only about forty-eight hours. If an ovum is present the sperm, gets attracted to it, possibly because of scent- like chemical cues emitted by the egg (Spehr et al. 2003). The egg also prepares for fertilization in the presence of sperm Cells initially surrounding the ovum loosens their protective grip, permitting the egg to be penetrated. As soon as one sperm cell breaks through

the egg's protective linings enzymes rapidly transform its outer membrane to prevent others from invading (Moore & Persaud, 2008). Genetic material from egg and sperm quickly mix to establish a normal complete of 46 chromosomes. The egg, the body's largest cell, barely visible to the naked eye weighs about 100,000 times more than the sperm the body's smallest cell. Despite the enormous difference in size, both contribute equivalent amounts of genetic material to the Zygote.

In the typical nine months of confinement to the womb, the human organism indeed undergoes an epic journey. At no other time does growth take place so rapidly. Many physical changes occur in a matter of weeks days, and even hours. Although fetal growth proceeds in a highly protected environment, we are also discovering the ways in which drugs, diseases, and other factors affect prenatal development. We summarize our current understanding of these influences and then consider the birth process, another point at which the influences on development can be significant.

Three major overlapping periods define the life of a human organism. The prenatal period is launched from the moment of conception and continues until the beginning of a labor. All but the first few days of this period are spent within the confines of the womb. The Perinatal period, which can overlap with the prenatal period, dawns at about the seventh month of pregnancy and extends until twenty- eight days after birth. This phase is associated with the impending birth, the social and physical setting for delivery and the baby's first adjustments to his or her new world. Among the events included in the perinatal period are the medical and obstetrical practices associated with delivery, and the preparations and care provided by parents and others to assist in the transition from the womb to life outside. The postnatal period, which can overlap with the perinatal period, begins after birth. The child's environment now includes the broader physical and social world afforded by caregivers and others responsible for the infant's continued growth.

The prenatal period is itself typically divided into three stages. The germinal period also known as the period of the zygote, encompasses the first ten to fourteen days following conception. Germinal period is the period lasting about ten to fourteen days following conception before the fertilized egg becomes implanted in the uterine wall. This is also called period of the Zygote. Embryonic period is the period of prenatal development during which major biological organs and systems form. It begins about the tenth to fourteenth day after conception and ends about the eight week after conception. Fetal period is the period of prenatal development, from about the eight week after conception to birth. This is marked by rapid growth and preparation of body systems for functioning in the postnatal environment Cell division and migration of the newly fertilized egg, culminating with its implantation in the uterine wall, characterize the germinal period .The second stage, the embryonic period, continues from about two to eight weeks after conception. The formation of structures and organs associated with the nervous, circulatory, respiratory, and most other systems

marks the embryonic period. The final stage, the fetal period, lasts from about eight weeks after conception until birth. This period is distinguished by substantial brain and physical growth. Organs and systems are also further refined in preparation for functioning outside the womb.

After Fertilization, the zygote continues to migrate down the Fallopian tube, within 24 to 30 hours after conception, the single cell divides into two cells, the first of a series of mitotic divisions called cleavages. At roughly twelve to twenty hour intervals, these cells divide again to form four then eight, then sixteen cells. During the cleavages the zygote remains about the time the zygote is ready to enter the uterus, it has become a solid sphere of sixteen cells called a morula. Each cell is a like in its capacity to generate a spate, identical organism. About the fourth day after conception, however, the cells begin to segregate and carry out specific functions. One group forms a spherical outer cellular layer that eventually becomes various membranes providing nutritive support for the embryo, the label typically applied to the developing human organism from about two to eight weeks after conception. A second inner group of cells organizes into a mass that will develop into the embryo. This differentiated group of cells is now called a blastocyst (Sadler, 2004).

The Embryonic period begins with the implantation of the blastocyst in the uterine wall and continues until about the eighth week after conception, is marked by the rapid differentiation of cells to form most of the organs and system within the body. This differentiation known as organogenesis is achieved by the production and migration of specialized cells having distinctive functions.

In the fetal period there is change from embryo to fetus mass that will develop into the embryo. This differentiated group of cells is now called a blastocyst (Sadler, 2004). About the sixth day after conception, the blastocyst begins the process of attaching to the uterine wall to tap a critically new supply of nutrients. By about the tenth to fourteenth day after conception, the implantation process is completed. Embryo label typically applied to the developing organism from about two to eight weeks after conception.

Prenatal factors account for about one third of all cases of retardation (32%) and they are especially prominent in more severe degrees of intellectual impairment. Although, the role of a number of adverse prenatal events in causing retardation is relatively well understood, their specific impact is complicated by the time period that may intervene between the precipitating event and its actual detection (alcohol consumption in the first trimester of pregnancy and some later postnatal manifestations of fetal alcohol syndrome), and a likely interplay of individually adverse effects (Masland, 1958). The latter is illustrated in such conditions as hemorrhage during pregnancy and low birth weight (prematurity), each of which increases the risk for abnormality.

The Nongenetic biological causes of mental retardation during pre-natal period include Infection (caused by Rubella, Toxoplasmosis, Syphilis, Cytomegalovirus and HIV), Maternal-fetal blood incompatibilities (Rh and ABO), Drugs and alcohol (caused by Cocaine, Heroin, Methadone, Alcohol, & therapeutic drugs), Maternal-fetal irradiation, and chronic maternal health problems (caused by Hypertension and Diabetes).

The Perinatal Nongenetic biological causes may be attributed to prematurity, Asphyxia (caused by Intracranial hemorrhage), Head trauma (caused by Hemorrhage, infection) infection (HIV and herpes) and Kernicteris.

In the post-natal Non-genetic causes for mental retardation may be attributed to infection (caused by encephalitis, meningitis, brain abscess, post-immunization encephalopathy) Cerebral trauma (caused by head injury, cerebrovascular accidents, brain tumor, hemorrhage from coagulation defects, thromboses, ruptured aneurysm) Poisons and environmental toxins (caused by lead, and mercury) Anoxia (caused by cardiac arrest, hypoglycemia, respiratory distress syndrome) Metabolic (caused by hypernatremia, hypoglycemia) Epilepsy (caused by Severe malnutrition)

Research methodology

That universe of the study comprise of 4 special schools imparting education and training to intellectually disable children located in Shillong. The schools under the study were Jyoti Sroat School, Dwar Jingkyrmen, Asha School, and Marry Rice Centre. The total number of ID children enrolled in all the 4 schools belonging to mild and moderate category was 195 (Data from the schools: 2014). The total numbers of boys enrolled were 135 and the total numbers of girls were 60. 50 children afflicted with mild and moderately ID, their parents and all the teachers from the special schools constituted the sample of the study. Random sampling procedure was adopted to obtain the required sample. The study was a cross-sectional survey. The objective of the study was to correlate the socio demographic factors of the parents of the ID children, the prenatal & postnatal factors, and attitude of parents & teachers of the ID child. The data was collected from both the parents and all the teachers from the four schools through a questionnaire. The questionnaire was developed by the investigators. Statistical techniques like percentage, Chi square and multiple regressions were used for the study.

Result

1. The finding showed that approximately 76 % parents belonged to low socio economic status having ID children. The unemployed ratios of mothers were 42% as compared to fathers are 14%. The majority of both fathers (32%) and mothers (62 %) were unskilled workers. Family income of most of the children with intellectual disabilities (76%) was below Rs 10,000 per month. 52% children belong to nuclear

family and 48% children belong to joint family. The study also found that mothers of children with IDs were significantly less happy and had lower self-esteem and self-efficacy. Higher and middle income parents (24%) have greater marital quality thus predicting lower parenting stress and fewer depressive symptoms in relation to their socio-economic status. It was also found that parents (62%) had lower quality marriages. However 78% of the parents were getting support from spouse, relatives, friends and neighborhood.

2. The study revealed that several maternal care characteristics like late night sleep, irregular working schedule, taking other medicines other than prescribed, and being under stress during the pregnancy period affected the foetus. The study also found strong associations between mother's cognitive states and their parenting stress. 50% parents had positive impact in terms of patience, tolerance, empathy, sensitivity support and relationship. However there was no significant loss of support from spouse, family, in-laws, relatives, friends and neighborhood. The results also indicate that the parents are uniquely worried about the independent functioning of their child in the future. Similarly the mothers reported worries about the future associated conditions of the child. As compared to mothers, the fathers showed less stress. Physiological responses of parents of children with ID are crying, cold sweat, not eating, physical pain, and break down. It was also found that most of the parents are not using psychological services such as guidance, emotional support, physiotherapy services, speech therapy, and music to cope with the children. The teachers have developed the skill of tolerance for working with the ID children. They also emphasized on motivating the ID children to participate in co-curricular activities like Games, Yoga, and Arts to develop Gross Motor and Fine Motor skills among the children.

3. The study found that birth of children with behavioral problems in early pregnancy is associated with the emergence of behavioral problems, particularly hyperactivity and comorbidity problems. It also found that ID children were perceived by their teachers and parents as displaying less socio-affective abilities. Children with Intellectual disability are less socially adjusted to environment and peer group. Again it was found that social cognition components had links with development of social skills in children with behavior disorder and Intellectual disabilities having internalizing as well as externalizing problems.

4. The low socio-economic status percentage of parents expressed the needs of family and social supports and also the necessity to understand their child condition is encouraging. From the study it was found that social environment is strongly related to the mental and social functioning of the mothers. Mother's physical health was not significantly associated with characteristics of the social environment. Non-significant difference was found in the areas of social embarrassment and financial implications in all groups of parents. Mothers spent significantly more time with their disabled children than their spouses in terms of hours per day. Further the finding of the study was that the father experienced less stress than mothers. Majority of parents reported that they were getting hurt by other people. They feel hopelessness

(62%), depression (72%), grief (52%), and anger (56%). In the social support most of the parents experienced loneliness (82%), isolation (78%), loss of friends and relatives (76%). The study found that parents showed the dissatisfaction with professional service people (Doctor and Psychologist). Again the parents expressed a variety of opinions about their coping strategies using proactive approach. Several parents turned to and seek the help of religious men and they visited religious place for help the children to cure. Further almost all the parents avoided difficult situations, for children taking to public places.

Rehabilitation mechanisms

Rehabilitation Council of India (RCI) was set up as a registered society in 1986. In September, 1992 the RCI Act was enacted by Parliament and it became a Statutory Body on 22 June 1993. The Act was amended by Parliament in 2000 to make it more broad based. The authorization given to RCI was to regulate and monitor services given to persons with disability, to standardize syllabus and to maintain a Central Rehabilitation Register of all qualified professionals and personnel working in the field of Rehabilitation and Special Education. The Act also prescribes disciplinary action against unqualified persons delivering services to persons with disability. RCI also was to meant to regulate the training policies and programmes in the field of rehabilitation of persons with disabilities; to bring about standardization of training courses for professionals dealing with persons with disabilities; to prescribe minimum standards of education and training of various categories of professionals personnel dealing with people with disabilities; to regulate these standards in all training institutions uniformly throughout the country; to promote research in Rehabilitation and Special Education; to maintain Central Rehabilitation Register for registration of professionals/ personnel; to recognize the national institutes and apex institutions on disability as manpower development centers and to register personnel working in national institutes and apex institutions on disability under the Ministry of Social Justice & Empowerment.

The establishment of Rehabilitation Council of India has been a major move for quality assurance in the education training and management of persons with disabilities. Persons with Disabilities (Equal opportunities, Protection of rights and Full participation) Act, 1995 fixes the responsibilities on central and state governments to provide services, create facilities and give support to the people with disabilities in order to enable them to have an equal opportunity in participating as well as for being productive. India also ratified the UN Convention on the Rights of Persons with Disabilities in 2007. The PWD Act of 1995 was the key central legislation that provided certain entitlements in the areas of education, employment and affirmative action, and other privileges in prevention and early detection of disabilities. Evidence of considerable variability at the state level in providing for people with disabilities is evident when one notes that some states have been pro-active in increasing awareness among people, with disabilities about commitments and entitlements (Tamil Nadu, Karnataka, New Delhi) whereas others have lagged in implementing

many of the basic entitlements enshrined in the PWD Act of 1995 (Bihar, Maharashtra, Orissa, Uttar Pradesh).

Family

Family is the oldest and most enduring of the human institutions. Family is considered as the basic unit of society, to meet the needs of individuals and those of other societal institutions. It is a link between continuity and change. Family provides a socially acceptable vehicle to bring children into the world. Parents of the mentally retarded are more directly concerned with the problem than anyone else. Parents are as important as any community member or professional in helping retarded in helping themselves. They very often suffer from diffidence and anxiety over the question of meeting their child's needs. Every activity of persons with mental retardation has a meaning in their life. Families have to play a key role to rehabilitate the child. They have to facilitate the child in different services such as Activities for Daily Living (ADL), Dependent of living skills, social activities, vocational and employment activities. This will help the children to bring into their normal life.

Institutional mechanisms

There are many types of educational opportunities available today for the retarded child. In most advanced countries there are special day schools, residential schools, and various rehabilitation and occupational programmes available for the retarded. In India, National Policy for Persons with Disabilities was announced by the Government of India in 2006. The emphasis was on bringing persons with disabilities into the mainstream of the society. It recognized that "persons with disabilities are valuable human resource for the country". Its focus was to create an environment that provides those equal opportunities, protection of their rights and full participation in society. National Policy also seeks to prevent the incidence of disabilities through programmes for prevention of diseases that bring about disabilities and for creation of awareness about measures for prevention of these disabilities. The rehabilitation measures include Physical rehabilitation through early detection, counseling and medical interventions, provision of aids and appliances and development of rehabilitation personnel, Educational rehabilitation through promotion of education and development of vocational skills and Economic rehabilitation through provision of opportunities and for employment in government, wage employment in private sector and self – employment. The policy also stresses on the special needs of women and children with disabilities, importance of creating barrier-free environment and social security, and the important role that can be played by the non- government organizations in services to the persons with disabilities. National Policy also calls for attention to the need for mainstreaming of the persons with disabilities in the general education system through Inclusive Education. The role of the existing programmes such as Sarva Shiksha Abhiyan (SSA) and the Integrated Education for Disabled Children (IEDC) Schemes are highlighted in the National Policy. The objective is to ensure

that every child with disability has access to appropriate pre-school, primary and secondary level education by 2020. National Curriculum Framework for School Education (NCFSE, 2000) brought out by the National Council of Educational Research and Training (NCERT), recommended all-encompassing schools for all without specific reference to pupils with SEN (Special Educational Needs) as a way of providing quality education to all learners.

District Rehabilitation Centers

Government of India has also launched the District Rehabilitation Center Scheme in early 1955, to provide comprehensive rehabilitation services to the rural disabled right at their door steps. The services provided under the scheme includes: Prevention and Early Detection, Medical Intervention and Surgical Correction, Fitment of Artificial Limbs, Aids and Appliances Therapeutic Services Training for acquiring Vocational Training, and Job Placement.

Community Based Rehabilitation (CBR)

Community Based Rehabilitation is a cost effective, individual need based and result oriented approach for promoting complete integration of the individual into his community. Once rehabilitated, individual should lead a more productive life. This approach calls for full and coordinated involvement of all levels of society, community and intermediate and national. It seeks the integration and intervention of all relevant sectors- education, health, legislative and vocational and aims at the full representation and empowerment of persons with disabilities.

Psycho-Social Intervention

The view on integration and rehabilitation of people with disabilities is moving away from a rigid interpretation of the medical model to social model. The Social model suggests that the person's impairment is not the cause of the restriction of activity, but rather it is the way society is organized that causes discrimination against the disabled community. The proponents of the social model think that, if society would accept and accommodate disabled people, both physically and in societal attitudes, disability as concept would be made redundant (Barnes, 2003).

Children with disabilities have the same rights as children with no disabilities as enshrined in the UN Convention on the Rights of Children (CRC) (article 2). UNICEF, 2005 Report found that violence against disabled children occurs at annual rates of at least 1.7 times greater than their able bodied peers. An example of the increased vulnerability of children with a disability to violence is found in a study on children with language impairment in Nebraska, U.S.A. These children were 3.4 times more likely to face sexual violence than other children (Sullivan & Knutson, 2000). Another study from the United Kingdom concludes that all disabled people are at twice the

risk of being physically or sexually abused, compared to their able bodied peers (Calderbank, 2000). Women's Commission for Refugee Women and Children (2008) conducted the study and found that the refugee women and disabled children were excluded from psychosocial support. Psychosocial well being is the state in which individuals, families, or communities have cognitive, emotional, and spiritual strengths combined with positive social relationships. This state of well being motivates the development of life skills which enables them to understand and engage with their environment, and make healthy choices which leads to hope for the future. Psychosocial support is a continuum of love, care and protection that enhances the cognitive, emotional and spiritual wellbeing of a person and strengthens their social and cultural connectedness. Effective psychosocial support enhances individual, family and community well being and it positively influences both the individual and the social environment in which people live. Skills and knowledge lead to competencies and capacities to cope with life's demands and stresses and to manage relationships well. This includes problem solving, planning and decision making, stress management, negotiation, assertiveness, using culturally appropriate coping mechanisms, and ability to assess strengths in relation to needs. Emotional wellbeing is an individual's capacity to live a full and creative life and the flexibility to deal with life's inevitable challenges. The intrapersonal area concerns the individual's ability to know and to manage him or herself. It determines how in touch with his or her feelings a person is, how a person feels about him or herself and what he or she represents or is doing in their life. This includes self-awareness and a sense of self-worth, control over behaviour, realistic beliefs, spiritual appreciation or belief in purpose, independence, feeling safe and happy, appreciation of others and hope for the future. The interpersonal area concerns the ability to interact and to get along with others. Social well being also refers to the extent and quality of social interactions of children and youth, families and communities. This includes relationships with family members and peer groups, developing social networks, sense of belonging to a community, ability to communicate, social responsibility, empathy and participation in social and cultural activities.

Suggestions

The study suggests that maintenance of family integration; co-operation and optimism were strongly associated with reduced stress relating to overall family cohesiveness. Community agencies and government should educate the general public about the disabilities and raising awareness of the difficulties for parents. It can be emphasized that social skills training and aggression regulating in the training to psycho-education leads to more understanding in parents and teachers to change their attitudes towards the ID child. The interventions to teach and improve social skills should be offered to individuals with ID regardless of their parenting status. Prenatal and parenting programs for parents with ID should specifically include the psychological well-being to access the social support and family centered interventions. Mothers have a critical role at the time of pregnancy. They have to take healthy and nutritious food and at the same time go for regular term checkups.

Otherwise it leads to malnutrition, susceptibility to disease, and delivery complications contributing to the effects of stress in fetal development.

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Sustainable Development: A Gradual Learning Process of Lifelong and Environmental Law

Faisal Ali Khan

Sustainable development is defined as a process of meeting human development goals while sustaining the ability of natural systems to continue to provide the natural resources and ecosystem services upon which the economy and society depends. While the modern concept of sustainable development is derived most strongly from the 1987 Brundtland Report, it is rooted in earlier ideas about sustainable forest management and twentieth century environmental concerns. As the concept developed, it has shifted to focus more on economic development, social development and environmental protection for future generations. Sustainable development is the organizing principle for sustaining finite resources necessary to provide for the needs of future generations of life on the planet. It is a process that envisions a desirable future state for human societies in which living conditions and resource-use continue to meet human needs without undermining the "integrity, stability and beauty" of natural biotic systems. It was suggested that "the term 'sustainability' should be viewed as humanity's target goal of human-ecosystem equilibrium (homeostasis), while 'sustainable development' refers to the holistic approach and temporal processes that lead us to the end point of sustainability."

Development is the need of economic prosperity but in the name of economic development no one can spoil the environment as human beings need pollution free atmosphere. Imbalance in the environmental factor brings disaster to humanity.

Sustainability of forest ecosystem is an essential component of the environmental conservation efforts and any degradation of forests will have an adverse impact on various systems such as water resources, agriculture, biodiversity, environment, climate and human health. About 41% of forest cover of the country has already been degraded and dense forests are losing their crown density and productivity. A large number of India's livestock population graze in forests, causing serious damage to regeneration and productivity. The use of forests beyond its carrying capacity and encroachments, upon forestland are the main cause of the continuous degradation of forests. At present 70% forests have no natural regeneration and 55% are prone to fire. In the year 2002, the Government of India set a goal of achieving 25% forest and tree cover by 2007 and 33% forest and tree cover by 2012. Therefore, it is a continuous process to learn about the natural resources and ought to do something for safety of forest which is the best source of pollution control and control the deforestation in our surroundings. Industries or township need to be developed in non-fertile land in order to have greenery in the country. So it is a lifelong learning process of sustainable development! (Footnotes)

The sustainable development is a gradual learning process till lifelong due to the safety of natural resources which is an integral part of our life which will tell us how can development of planning of the township, industries, schools, etc. without any sort of compromise with our environmental law, because learning about the environmental law has been made compulsory up-to the 10+2 level by the decision of apex court of India.

The lifelong learning process can be made by awareness among the common and illiterate people of the country to know about to control of pollution as well as birth control to the peaceful enjoyment of our coming generation. So it can be achieved to our goal by some sort of classes, workshops, seminars and camp trainings to the adult educators, etc. for the awareness and protection of environment.

According to Section 2(a) of the Indian Environment (Protection) Act 1986, the term "Environment" includes water, air and land and human beings, other living creatures, plants, micro-organism and property. However, under Section 1(2) of the Environment Protection Act 1990 of the United Kingdom, the term "environment" consists of all or any of the following medium, namely, air, water and land and the medium of air made structures above or below ground. According to the Encyclopaedia Britannica, the term "Environment" means the entire range of external influence acting on an organism, both the physical and biological and other organism, i.e., forces of nature surrounding of an individual. Besides, man-made environment is created by us i.e., industrial revolution, communication networks like telephones, internet etc., agricultural and plantation for the protection of environment, power generation, sustainable development is a tool of protect the pollution free environment².

The degradation in environmental quality has been evidenced by enormous pollution, loss of vegetal cover and biological diversity, excess accumulation of harmful chemicals in the atmosphere and in food chains, growing risks of environmental accidents and threats to life support system. The expression "the people of the whole world resolve to protect and enhance the environmental quality" is found in the decisions taken at the United Nations Conference on the Human Environment which took place at Stockholm in June 1972. The Government of India participated in the Conference and strongly voiced the environmental concerns. While several measures have been undertaken for environmental protection, but the need for a general legislation has become increasingly evident. Although, there are existing laws dealing directly or indirectly with several environmental matters, it is necessary to have a general legislation for environmental protection. Existing laws generally focus on specific types of pollution or on specific categories of hazardous substances. Some major areas of environmental hazards are not covered. There also exist uncovered gaps in areas of major environmental hazards. There are not adequate linkages in handling matters of industrial and environmental safety. Control of mechanism to the guard against slow insidious to develop of the hazardous substances, especially new chemicals are weak in an environment. Because of a multiplicity of regulatory agencies,

there is a need for an authority which can assume the lead role for studying, planning and implementing long term requirements of environmental safety and to give direction to and to coordinate a system of speedy and adequate response to emergency situations threatening the environment³.

The deforestation, cutting of tree without permission from the competent authority, rapid growth of industrialization, there is no check and balance of hazard standards equipment in industrial units, expulsion of population, inadequate knowledge among the people about environment and pollution are the main causes of environmental issues and challenges. Besides, the government agencies/functionary is not activated to control these problems and prospects in such a manner as requires the problems of our nation. There is a need to motivate these agencies to do something in inspirit of the legislation with the strong "Political Will of the State". NGOs can create awareness about issues and solutions amongst to the common people.

(i) Eco-Friendly Constructions: Sustainable and Use of Green Cement

The main component of all construction, concrete made with cement, is one the wrong ways to the eco-friendly constructions because cement plants are creating large number of greenhouse gases. Copious amounts of carbon dioxide are released when cement of the ordinary Portland variety (OPC) is manufactured, often as much as one tone of gas for tonne of cement produced. As a result, right now, worldwide research is being conducted on alternative components for manufacturing green cement and the demand of green cement has been increasing day-by-day due to less damage to the environmental factor⁴.

This alternative method of green cement construction is more durable as comparable to ordinary Portland variety cement, because of a concrete mix is on high compressive strength while being devoid of cement is being touted as one of the new innovation of green construction. Instead of Portland cement, which uses limestone, substituted materials are being used to make cement free concrete. Granulated blast furnace slag, which is the byproduct of iron and steel making process used along with pulverised fly ash and silica. Theses sort of eco-friendly cements are based on the components of fly ash, sodium hydroxide and potassium hydroxide, clays, and some slag. It is durable and strong and also do not release toxic gases⁵.

The new constructions will be based on eco-friendly process to use the cement blocks instead of traditional bricks in order to maintain the environment and use the natural resources in a minimize ways. Besides this method is also low water consumption and there is a need of compulsory rain water harvesting plant to be fixed in new constructions of real estates. There should be fixed-up some sort of plant and machinery to clean the used-water and it will be able to be recycled for the purpose of use again in order to maintain the water level of the locality. It is a lifelong process to learn about the sustainable development and protect the environment.

The modern trends in the construction industry will also create a trouble by way of ceramic tiles of floorings, underground electricity fittings and sanitary fittings in the bathrooms due to cutting the brick walls, ultimately the dust particles/ash flee in the air and disturb our ecological system and hence, a need of an hour to do something for the protection from the air pollution.

(ii) Initiatives of Industrial Development Control by Sustainable Development: Environmental Law

A very high priority has been accorded to industrial development for speedy economic growth. Such progress, however, brings along with it a lot of ecological problems. Environmental pollution caused by hazardous industries presents potential challenge to life and the harmony between man and nature⁶.

It is true that industrial development should not be at the cost of environment, but at the same time, environmental protection measures should not deprive the country of an opportunity for economic development. Thus, there is always a conflict between industrial development and conservation of environment. The need to balance the values of development and environment, therefore, becomes imminent⁷.

Although the conservation of environment need not be construed as non-intervention, the industrial production process cannot be permitted to go unhindered to pollute the environment. In the words of Paton:

*"We cannot have an absolute right to an unspoiled environment, for modern industry must at least in some areas destroy rural beauty. The best that law can do is to curb the worst excesses of industrialization by town planning. Noise and pollution are two of the greatest offenders- the latter affects air, water, natural growth and health of humanity"*⁸.

(iii) Constitutional Amendment 42nd of 1976: Environment Law

The Constitution of India came into force on 26th January, 1950. Originally, the constitution has not been contained provisions related to environmental protection. The environmental movement in India has its genesis in the United Nations Conference on Human Environment held at Stockholm in June 1972, to draw the World's attention towards the universal problem of environmental pollution and for time certain specific provisions have been incorporated by the Constitution (Forty Second Amendment Act, 1976) and subsequent amendments. Indian Constitution is one of the very few constitutions in the world, which provides for specific provision for the protection and improvement of the Environment⁹. It laid down the basic foundation for environmental legislations in the Directive Principles of the State Policy and the citizens' duty towards environmental protection in India¹⁰.

A new dimension to state responsibility by obliging the State to protect and improve the environment for the good of the society as a whole has been introduced in the Constitution of India. One of the Directive Principles added by the 42nd Amendment Act, 1976 provides for the protection and improvement of public health as one of the primary duties of the State. Article 48A of the Constitution, therefore, enables the State not only to adopt a protective measure but also to call for taking all suitable steps for improving an already polluted environment. It is, thus, within the duties and powers of the State to impose restrictions on the use of those resources and factors which adversely affect life and its development¹¹.

The State is also obliged to direct its policy towards the control of material resources of the community to sub-serve the good. The Directive Principles of the State Policy obligate the State to improve the quality of human life by controlling the exploitation of natural resources and protecting the environment. The responsibility for abatement of pollution and protection of environment is not a duty of the State alone; it is obligation of the citizen so that an individual may not overlook his duties to the community in exercise of his fundamental rights or commit wanton destruction of natural environment. The duty which a citizen owes is specified in Article 51A(g) of the Constitution. It speaks that every citizen should care for the protection and improvement of the natural environment. Since the fundamental duties are not address to the State, a citizen cannot claim that he must be properly equipped by the State for performance of the duties. However, the Supreme Court has issued many directions to the State in various environmental cases¹².

Most of the pollution is mainly from trade and business- particularly from industries. It has been found that tanneries, acid factories, tie and dye factories, distilleries and nowadays the hotel industries are contributing to environmental pollution. Thus, it all relates to fundamental right to freedom of trade and commerce/business guaranteed under Article 19 (1) (g) of the Constitution. Some of these industries or business/trades are carried on in a manner which endangers vegetation cover, animals, aquatic life and human health. But time and again, it has been made clear that this freedom of trade and commerce is not absolute and is subject to certain reasonable restrictions. Therefore, any trade or business which is offensive to flora or fauna or human beings cannot be permitted to be carried on in the name of the fundamental right¹³.

(iv) Environmental Law related Case-Laws

The Chemical or other hazardous industries which are essential for economic development may have to be set-up. But measures should be taken to reduce the risk of hazard or risk to the community by taking all necessary steps for locating such industries in a manner that would pose the least risk or danger to the community and for maximizing safety requirements in such industries. The Supreme Court has directed the High Courts to set-up a Green Bench¹⁴.

The Supreme Court has held that to issue certain directions regarding hazardous chemical and relying partly on Article 21 of the Constitution which has elaborated that there are dicta that the life, public health and ecology have priority over unemployment and loss of revenue¹⁵. Hence sustainable development is the necessity to avoid the chance of imbalance of our ecological system. Industrialization is the backbone of our economy but we cannot compromise with our degradation of the environmental factor.

The Apex Court has also held that right to pollution free air falls within the ambit of Article 21 of the Constitution and Articles 14, 21, and 51A(g) are to be read together¹⁶. The "precautionary principle" requires the State to anticipate, prevent and attack the causes of environmental degradation¹⁷. The PIL can be brought by an institution in the locality on the basis of Article 21 of the Constitution the duty under Article 48A can be enforced¹⁸ and duty under Article 48A of the Constitution can be enforced a letter, based on Article 21 of the Constitution¹⁹. In the case of Supreme Court has recognised the importance of pollution free environment and gave it the status of a human right²⁰.

The Supreme Court has enunciated the doctrine of "Public Trust", based on the legal theory of the ancient Roman Empire. The idea of this theory was that certain common properties such as rivers, seashores, forests, and the air, were held by the Government in trusteeship for free and unimpeded use of the general public. The resources like air, sea, waters, and the forests have such a great importance to the people as a whole, that it would be totally unjustified to make them a subject of private ownership. The concept "environment" bears a very close relationship to this doctrine. The doctrine enjoins upon the resources for the enjoyment of the general public, rather to permit their use for private ownership or commercial purposes. It was thus held that the State Government committed breach of public trust, by leasing the ecologically fragile land to the Motel management. Besides, any disturbance of the basic environment elements, namely air, water and soil, which are necessary for "life", would be hazardous to "life" within the meaning of article 21 of the Constitution²¹.

The Supreme Court has held that the every attempt should be made to preserve the fragile ecology of the forest area and to protect the Tiger Reserves and the right of tribal in the State of M.P.²². Besides, merely asserting an intention for development is not enough to sanction destruction of local ecological resources²³.

Whenever a problem of ecology is brought before the Court, the Court is bound to bear in mind Article 48A of the Constitution and Article 51A (g) of the Constitution. When the Court is called upon to give effect to the Directive Principle and the Fundamental Duty, the Court is not to shrug its shoulders and say that priorities are a matter of policy and so it is a matter for the policy-making authority. The least that the Court may do is to examine whether appropriate considerations are borne in mind and irrelevancies excluded. In appropriate cases, the court may go further, but

how much further will depend on the circumstances of the case. The Court may always give necessary directions²⁴.

The Supreme Court held that the material resources of a community like forests, tanks, ponds, hillocks, mountains, etc. are nature's bounty. They maintain a delicate ecological balance. They need to be protected for a proper and healthy environment which enables people to enjoy a quality of life which is the essence of the guaranteed right under Article 21 of the Constitution. The Court has decided that the pond's land could not be allotted for a residential purpose.

If the residential buildings are converted to commercial use, it amounts to violation of municipal laws, master plan and environmental laws. Therefore, the Supreme Court ordered that for sealing such residential premises. It was observed that the persons do not have right to carry on any trade profession in flagrant violation of regulatory provisions on massive scale. This would also result in environmental pollution²⁵.

The Supreme Court gave wider interpretation to right to life. It declared that the right to environment is a fundamental right. On the other hand right to development is also one. Here the right to "sustainable development" cannot be singled out. Therefore, the concept of sustainable development is to be treated an integral part of "life" under Article 21 of the Constitution. It was also clear that this right to development encompasses much more than economic well-being and includes within its definition the guarantee of fundamental human right²⁶.

The protection of environment cannot be sacrificed in name of development and natural resources cannot be allowed to be over exploited contrary to statutory regulatory regime and mining operations is contrary to statutory resources for present and future generation²⁷.

(v) Legislations on Environmental Law

The Parliament has enacted various legislations for the protection of environment, pollution and maintains the ecological system of our nature, such as even in pre-independent era environment pollution was regulated by general laws viz: I.P.C. 1860, Cr.P.C. 1898 and Police Act 1861 having relevant provisions dealing with control of water, air, noise pollution and nuisances. Whereas, water pollution was controlled mainly by the North Canal and Drainage Act 1873, and the Obstruction of Fair Way Act 1881, Air Pollution Control Provisions were contained in the Oriental Gas Company Act 1957, Explosives Act 1884, Indian Boilers Act 1923, The Petroleum Act 1934, Poison Act 1919, The Environment (Protection) Act 1986, Air (Prevention and Control of Pollution) Act 1981, The Water Cess Act 1977, The water (Prevention and Control of Pollution) Act 1974, The Bhopal Gas Leak Disaster (Processing of Claims) Acts 1985, The Public Liability Insurance Act 1991, The Wild Life (Protection) Act 1972, The Forest (Conservation) Act 1980, The Indian Forest Act 1927 The National Green

Tribunal Act 2010 but the implementation of these laws could not achieve the required results, it may be a failure of our function and functionary. But it can get the required results with the aid of "Strong Political Will of the State" and NGOs can play the vital role for creating awareness on environment and pollution free atmosphere among the common peoples.

Conclusion

To sum-up the above discussions that in the present day globalization era, the theory "Social Engineering" propounded by Roscoe Pound says: The policy of Law makers, town planners, developers of industrial sectors in such a manner, it should be satisfying the maximum wants, or desires, or claims of the human beings with minimum waste, means a balance between the competing interests in the society"²⁸. In fact industrialization plays vital role in our economy and commerce and also generate employment opportunities to our youth generations but keep in mind an environmental factor also. So, sustainable development is the need of an hour and it would be helpful to the maintenance of environmental factors and ecological balance. Natural resources may be utilized as minimum as possible and policy makers must plan industrialization and urbanization policy in such a manner to protect and improve the environment and pollution free atmosphere to preserve the fertile lands. Industrial Townships can be set-up in non-fertile lands and green belts developed for the progress of oxygen from trees. Policy-makers may plan their policies in such a manner to provide an opportunity to the farmers to develop the groves and orchards to create oxygen to our lungs and control of pollution. Hence, sustainable development and environmental factors are lifelong learning processes to control the pollution and save the lives of the citizens and for the coming generations to enjoy pollution free environment which is enshrined in the fundamental right under Article 21 of the Constitution.

Footnotes

¹Zafar Mahfooz Nomani; Law and Sustainable Forestry; Ed: 1st (2009); Pub. Aligarh Muslim University Press

². Dr.S.C.Tripathi & Mrs.VibhaArora; Environmental Law; Ed.5th; (Reprint 2013); Central Law Publication; pp. 1,2

³.Id p. 21

⁴Rachana Grover; Sustainable Construction at a Watershed; Pub: Times of India (Times Property); Delhi, Sept. 3, 2016; p. 4

⁵Ibid.

⁶Prof. Dharmender S. Sengar; Environmental Law; Ed:(2007); Pub.Prentice-Hall of India Pvt. Ltd. New Delhi; P. 5

⁷Ibid.

⁸Ibid.

⁹Kamaluddin Khan; Constitutional provision and the environmental protection; <http://twocircles.net/book/export/html/13541>; (Lastly visited on 19/9/2016)

¹⁰Supra Note 6 at page 7

¹¹Ibid.

¹²ID at pp. 7 & 8

¹³Prof. Stish C. Shastri; Environmental Law; Ed: 4th; Pub. Eastern Book Company, Lucknow; pp.50-1

¹⁴Vellore Citizens Welfare Forum V. Union of India A.I.R. 1996 SC 2715

¹⁵M.C. Mehta V. Union of India A.I.R. 1987 SC 1086

¹⁶Subhash Kumar V. State of Bihar A.I.R. 1991 SC 420

¹⁷M.C. Mehta V. Union of India (1997) 3 SCC 715

¹⁸Satish V. State of U.P.(1992) Supp. 2 SCC 94; Tarun Bharat Singh Alwar V. Union of India (1992) Supp. 2 SCC 448

¹⁹M.C. Mehta V. Union of India A.I.R. (1992) Supp. 2 SCC 633-37

²⁰Municipal Council, Ratlam V. Vardhichand AIR 1980 S.C. 1622

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Iswar Chandra Vidyasagar: The Lonely Prometheus of Lifelong Learning in Bengal

Sakti Pada Mandal

Iswar Chandra Vidyasagar is known all over India as a great social reformer during the mid- nineteenth century. He was a noble renaissance man, after the era of Raja Rammohan Roy and Derozio. According to the great poet Michael Madhusudan Dutt, "The man...has the genius and wisdom of an ancient sage, the energy of an Englishman and the heart of a Bengali Mother."

Multifarious Contributions

Iswar was born in a very poor Brahmin family of a remote village, Birsingha, far away from Kolkata. Initially his schooling started in this village. But at the age of only 8 years his father brought him to Kolkata for better education, crossing nearly 50 miles on foot. At that time Kolkata (then Calcutta) was the capital of India (from 1773-1911). This talented boy was admitted to Sanskrit College, became scholar in his subjects and was awarded with the honour as ' Vidyasagar' (ocean of knowledge), by the college. But he was not confined only in his studies like the self-cantered pundits of that time. He firmly came forward against the prevailing blind customs and superstitions, facing all odds of the feudal-colonial society. But unlike the Young Bengal Group, his quest was not for copying the west, but for searching new devices in the store of indigenous cultural resources and compiling and adapting the progressive western thoughts, suitable with these. As his social reform movement was based in the capital city of Kolkata, it could gain the recognition of all India character due to its gravity and extension. He adapted an entirely modern method of publicity and mass petition for the success of his social reform issues. He took bold initiative in Widow remarriage, Prohibition of child marriage and Prohibition of polygamy among the Hindu kulins.

Due to his forceful movement, widow remarriage act could be passed in 1856 along with a strong social opinion in favour of equal rights, dignity and education of the women. Ready support came from the Arya Samaj of Punjab and North India, from Maharashtra and South India. But in Bengal the opposition was very strong. Vidyasagar came forward to implement the new law with his own initiative and own fund. Almost all his relatives and well-wishers opposed him vehemently. Even there were several attempts on his life. But nothing could deviate him from his chosen path. When his only son Narayan Chandra married a widow in 1860, amidst the opposition of Narayan's mother and close relatives, Vidyasagar wrote in a letter ,

"Introduction of widow remarriage has been the greatest good work I have done in my life. There is hardly any possibility for me achieving anything greater in this life. I ruined myself materially for it, and, if necessary, I shall not shrink from laying down my life for it" But his contribution in the field of mass education is no less enduring, than the social reform movements led by him.

Pioneer of People's Education

Vidyasagar has been recognised by all learned persons as one of the pioneers, who laid the foundation stone of modern secular education in India. His noteworthy contributions in this field may be summed up as:

- Recognizing vernacular as medium of learning.
- Upgrading the style of writing Bengali prose into its present form.
- Modernizing the curriculum and learning process of formal education.
- Writing and printing "Barnaparichay", (part-i & ii), most effective primers for the children.
- Writing and printing the follow up books for graded learning.
- Establishing strong foundation for female education in Bengal. Establishing 40 female schools in rural Bengal, primarily with the assistance of the government.
- Establishing 20 vernacular schools in different parts of rural Bengal.
- Establishing training school for the teachers.
- Opening the door of education for the non-Brahmin students in his Sanskrit College.
- Establishing night school for the toiling adult illiterates.
- Introducing continuous and concurrent evaluation system.
- Establishing first successful non-government higher education institute in India.

According to Rabindranath Tagore, "By all accounts Vidyasagar is the first artist in Bengali prose.. .He has made it a gentleman's classical language of the world, capable of expressing everything." "No one before Vidyasagar," wrote Bankim Chandra, "and none after him, could write such elegant and graceful Bengali". Gandhiji also pointed out that, "it is mainly due to Vidyasagar that the Bengali language is at present in full bloom and has spread throughout India."

Educational reform

The state of formal education in Bengal at the beginning of nineteenth century was miserable. There was pathsala (school) almost in every village. But William Adam in his report in 1868 presented a harrowing picture of those schools and their teachers. Those schools were in shabby huts or *chandimandaps* or in the open air. The Guru-Mahasayas (teachers) used to teach from memory or tattered manuscripts

of a dubious nature and kept discipline literally with an iron hand. There was no relation between elementary and higher education. There was no follow up education and no element of character-building in this system. The high school curriculum was full of religious and traditional deadwoods.

In this context, Vidyasagar joined Sanskrit College in 1846 as Assistant Secretary with a clear plan of thorough reform of the contents and forms of education. He resigned within a short time as a result of differences of opinion with the Secretary; regarding his suggestions of reform. Five years later we find these points as 'notes' on the Sanskrit College. We find elaboration of these in different correspondences and actions. On 28th March, 1851, as Principal of the Sanskrit College he wrote to the Officiating Secretary, Council of Education, "I see no objection of other castes than Brahmin and Vaidyas or in other words, different orders of Shudras to the Sanskrit College".

We must convey our tribute to him as he was among the first to realise properly about Indian national language problem in the practical level. He wrote in his 'Notes' on April 12, 1852 - "The creation of an enlightened Bengali literature should be the first object of those who are entrusted with the superintendence of education in Bengal... "An elegant, expressive and idiomatic Bengali style cannot be at the command of those who are not good Sanscrit scholars well versed in the English language and literature... "Experience proves that mere English scholars are altogether incapable of expressing their ideas in elegant and idiomatic Bengali. They are so much anglicised that it seems at present almost impossible for them, even if they make Sanscrit their after study, to express their ideas in an elegant and idiomatic Bengali style."

In a letter to F.I.Mouat, Secretary to the Council of Education during September 1853, he clearly stated, "With regard to Bishop Berkeley's INQUIRY, I beg leave to remark that the introduction of it as a class book would beget more mischief than advantage." He further stated, "That the Vedanta and Sankhya are false systems of Philosophy is no more a matter of dispute."

He opposed annual examination as the only system of students' evaluation. He wrote to Dr. Mouat on 21 January, 1854, "Under this system the pupils relax their labours after the close of a session and do not resume them in earnest till the time of the examination draws near... The consequence is that a habit of industry is not acquired, from the want of which the great majority of students do not keep up their studies in after-life, though they distinguished themselves while at college." So far he was given a free hand, he enthusiastically implemented all his plans in full scale.

Ideal administrator

Vidyasagar's duration of holding government posts was very short. But in this short time he passed through vicissitudes of various educational assignments. He

was Sheristadar of the College of Fort William from December 1841 to March 1846, Assistant Secretary to the Government Sanscrit College from April 1846 to July 1847, Head Writer and Treasurer of the College of Fort William from March 1849 to November 1850, Professor of Literature in the Sanscrit College from December 1850 to January 1851, and Principal of the same College from January 1851 to 1858.

In addition to his duties as Principal of Sanscrit College, he was made Assistant Inspector of Schools of South Bengal from May 1, 1855. He was promoted to the post of Special School Inspector during November 1856 and continued till his resignation from all government posts during November 1858 at the age of only 38.

Besides these, he had to discharge other important administrative duties at different times, like Honorary Secretary of Bethune Female School, Secretary of Tattvabodhini Sabha, Editor of Tattvabodhini, Someprakash and Hindu Patriot patrika, EC member of 'Pathuriaghata Banga Natyalay,' Inspector of Wards Institution etc.

Love for humanity, particularly for the oppressed, which he inherited from her mother, Bhagavati Devi and other family members, was the key to his unbound energy. He was a straight-forward man and disliked any kind of tricks, dishonesty and pretention. He must be regarded as an ideal educational administrator, still to be studied and followed.

Popular Education

Education during early 1850's was confined to a narrow section of the towns and township of our country. English was its medium. In Bengal Sanskrit was being studied in tolls and Arabic in Madrasas. But the mother tongues were almost neglected. The colonial rulers declared in 1835, the supremacy of English over all Indian languages and declared infamous "downward infiltration theory" for the masses. As per India Government's resolution of 10th October, 1844 learning English had become a passport to government services. The Indian 'bhadrak' classes too had no sympathy for popular education and nor for education through people's languages.

Rajnarayan Bose, a reputed educationist of that time commented on the deplorable situation of popular education and utter failure of "downward infiltration theory" at a Hare Memorial Meeting in 1848. He showed from the government reports that in twenty years since the establishment of the General Committee of Public Instruction, only two thousand in all had learnt a little English, whereas only 8% of boys in Bengal and Bihar had any schooling and only 6% of the adults were literates. In this context of severe criticism, Sir Charles Wood's Despatch (no.49 of July 19, 1854) arrived in India, where it was stated that, "...while the English education continues to be made use of as by far the most perfect medium for the education of those persons who have acquired a sufficient knowledge of it to receive general instruction through it, the vernacular languages must be employed to teach the far larger classes who are ignorant of, or imperfectly acquainted with English." [Para-4 of the Despatch]

An essential part of Vidyasagar's educational plan was to spread education among the masses though their own mother tongue. He wrote to Dr. Mouat, as early as 7th September, 1853,... "What we require is to extend the benefit of education to the mass of the people. Let us establish a number of vernacular schools, let us prepare a series of vernacular class-books on useful and instructive subjects, let us rise up a band of men qualified to undertake the responsible duty of teachers and the object is accomplished. The qualification of these teachers should of this nature. They should be masters of their own language; possess a considerable amount of useful information and are free from the prejudices of their own country. To rise up such a useful class of men is the object I have proposed to myself and to the accomplishment of which the whole energy of our Sanskrit College should be directed."

The scheme of F.J.Halliday, the then Lieutenant –Governor of Bengal ,which took shape as a result of 'several consultations with Vidyasagar' provided Vidyasagar a brief chance (1854-58) to carry forward his plan of popular education with the vernacular schools or 'Banga Vidyalayas'.

Vidyasagar set to work with characteristic zest and between 22 August 1855 to 14 January 1856 twenty such schools were founded, five in each district of Hooghly, Burdwan, Nadia and Midnapur. The village people mobilised resources for construction of school buildings and took a lively interest in them. By the beginning of 1856 the number of students reached to 2,738. As per evaluation, they acquired thorough knowledge of the Bengali language, and respectable advancement in other branches of study. Vidyasagar carried away by the success promised fund from his private means right and left. He established a free school in his home village in 1853 and continued to provide free food and lodging at his own house. For the training of the teachers, a normal school of teachers' training was opened in 1855 with Akshoy Kumar Datta as its principal.

Though the government policy resisted him from further extension of his plan of popular education, yet his genuine love, determination and dedication paved the way for a long journey towards education for all.

Women's education

The conservative society during the period of Vidyasagar was opposed to any kind of systematic education of the women. "Woman would become widow, if she become educated" was the traditional saying, propagated by the greedy fundamentalists. It is true that a few ladies of the Tagore families of Jorasanko and Pathuriaghata, the Dev family of Sobhabazar and the Roy family of Posta etc had some sort of education. But those were mere exceptions. Raja Rammohan Roy was the first to plead boldly for women's education. Afterwards the Brahmas, the Derozians and a few progressive -minded persons advocated and did something for it. But the opposition was still very powerful. In this situation, Vidyasagar dared to come forward

and face the storm. He visualised that only through proper laws and wide spread education can protect and upgrade the plight of the women. Sir J.E. Drinkwater Bethune, president of the then Education Committee founded the Calcutta Female School on 7 May 1849. He was aware of the views and efficiency of Vidyasagar and approached him to be its Honorary Secretary in December 1850. Unfortunately Bethune passed away and the School was renamed as Bethune School. Vidyasagar continued as Honorary Secretary till 1869. Under his capable leadership, this school crossed one after other milestones. He visited from house to house persuading parents to send their girl-children to the school. He personally took care of each girl and devoted his attention to disabuse the age-old prejudices against girls' education in school. Within a few years public estimation about the school became high. It had been placed on a firm footing and continued to flourish and became the first women's college in Calcutta. Kadambini Ganguli and Chandramukhi Bose became the first women graduates of Bengal from this school in 1883. When Chandramukhi passed M.A. in English in 1884 from Calcutta University, Vidyasagar was very happy and presented her with a copy of Cassell's illustrated works of Shakespeare with warmest words of congratulation.

Bethune was always in favour of women's education. He wrote to the government for grant towards establishing female schools. But the government was hesitant. In this context Lord Dalhousie's council and Wood's Despatch (during 1850) made the principle of grants-in-aid applicable to female school. Halliday depended solely on Vidyasagar for spreading women's education in Bengal. Vidyasagar enthusiastically took up the burden on his shoulders. He applied for government grant, as Special Inspector of Schools, from May 1857. Initially 2 schools at Hooghly and 2 schools at Burdwan were sanctioned. In anticipation of government's generous policy of expanding women's education, he went on opening one female school after another. Altogether 40 schools were opened in four districts with 1,348 girl students, between November 1857 and June 1858. The sites and teachers of these schools were selected with due care. A vigorous campaign for enlistment of students was made. Vidyasagar personally visited each and every school and helped them in all aspects. An era of women's empowerment began to be visualised.

But in the meantime the colonial rulers were frightened due to Sepoy mutiny and stopped any kind of support to the reformist and mass awakening activity. On a trifling plea grants to the newly established female schools were stopped. Moreover the building of the Sanskrit College was temporarily undertaken by the government for the soldiers. These led Vidyasagar to tender his resignation from all government posts on 5 August 1858. However he continued to provide financial support to the schools from his own fund. We are surprised to note that even during 1890, when he was almost bed ridden and disappointed from all corners, he established one Girls' High School at Birsingha in his mother's name, through his brother Sambhu Chandra. Even in apparent defeat, he stood like a lonely rock till his death passionately in favour of women's emancipation.

Barnaparichay

One of the greatest contributions of Vidyasagar in his journey for people's education is the creation of Barnaparichay i & ii (acquaintance with alphabets) for the children in the year 1855. During that period a few writers attempted to do the same and a few were published. But excepting that of Madan Mohan Tarkalankar, a friend and co-partner of a press of Vidyasagar, none was noteworthy.

When Vidyasagar was engaged in running vernacular schools, he realised the absence of any appropriate primer for the children. He helped Modan Mohan actively to fill the gap. But he was not satisfied. Thus a unique art was created which set the model for all later works. This is based on the temper of the children, with scientific accuracy in systematising Bengali orthography, step by step, from the simple vowels to consonants, orderly arranging of sounds, conjoint letters, then from mono-syllabic to dissyllabic, tri-syllabic words, leading to musical rhythmic simple sentences and paragraphs containing moral stories. The main characteristics of this are:

- * Developing it based on tenderness of the children.
- * Re-arranging the alphabets according to phonetic order.
- * Determining the perfect shape of the alphabets and printing them accordingly.
- * Using simple common words.
- * Introducing so far un-used punctuation marks, like comma, question mark etc.
- * Inspiring the children in discovering rhythm, sweetness and grace in prose and verse.
- * Developing inquisitiveness among the children about nature and society.

This was so popular that (within 1890) 33, 60,000 copies of the first part were sold/ printed (with 152 impressions/editions). Similarly, 15, 90,000 copies of the second part were sold/printed (with 140 impressions/editions)-within that period.

Follow-up books

Vidyasagar did not stop only with creating a unique primer for the first grade learners. He conceived the idea of lifelong learning. So he developed the graded follow up books in a systematic manner. As such, *Kathamala*, based on Aesop's Fables was published for the second grade. Then *Charitavali*, biographies of some great men was produced for the third grade. Then came *Bodhodaya*, a book of useful knowledge as the final grade of the series. These books equipped generations of Bengali children to face the world.

However, Vidyasagar continued to develop other necessary books at different times, like *Upamanika*, *Akhyan-manjari* (in three parts), *Rijupath* etc. either for the readers of formal schools or for the informal self reliant readers.

Night School

The missionaries of Bengal had a role in spreading education in Bengal. But probably Vidyasagar was the first man here to open a non-formal education centre at night for the poor adults. This was established in 1853 at his native village, Birsingha. The idea was not merely imparting literacy, but also to make them aware about the basics of geography, history, science and the society. To make them developed human beings with elementary knowledge and self respect. Besides 3R's, discussions on relevant topics were regular feature of that centre. The centre became very popular among the day labourers and poor peasants of the locality within a very short time. But the landlords and the money lenders of the neighbouring villages became very furious. As a result of their conspiracy the centre was attacked and burnt. Vidyasagar was shocked.

But his zeal was indomitable. Again, when he built up his residence at Karmatar (Bihar), he established another night school there during 1874-75 for the Santali community.

Private Educational Institution

The most remarkable achievement of Vidyasagar in the later part of his life is transforming a private school into a model school and college. The Metropolitan Institution was founded by Thakurdas Chakraborty and some other gentlemen during 1859. Vidyasagar was incorporated as a member of the School Committee. When this institution passed through a critical situation, Vidyasagar shouldered the burden as Secretary of the School Committee with single-minded devotion. Devoted and efficient teachers like Surendranath Banerjee were selected as teacher. Proper method of teaching-learning was introduced. Care for each student was ensured. Its fame had spread like a fire. Within a short time the government authority was forced to recognise it as a college in January 1863. Afterwards G. Ballet, officiating Director of Public Instruction stated, "Among Unaided Colleges, the Metropolitan Institution maintains its numerical supremacy...The General Assembly's College stands second and the Presidency holds the third place in point of numbers." During 1882 the Metropolitan Institution was allowed to open Law Degree Course. Later on it was allowed to provide education up to the M.A. Degree.

This Institution had been described by the then Vice-Chancellor Gooroodas Banerjee in his Convocation Address for 1892 as "first affiliated private college under native management, which has served as a model for many others that have since come into existence."

Lonely Prometheus

The contribution of Vidyasagar towards advancement of our society, particularly in laying the foundation stone of modern, secular education is unparalleled. But

throughout his life he had to swallow unbearable sufferings silently. But through all sorrows and sufferings his head was hold high .In a fettered land he was free and bold. He continued to serve the humanity alone even when his heart was bleeding. He is certainly a Prometheus of lifelong learning in Bengal, as well as in India. Tagore has rightly summed up his character in two precious phrases, "invincible manliness and indelible humanity".

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Lifelong Learning: A Tool for Quality Improvement in Teacher Education

*R. Anjaneyulu
M. V. Ramana*

Lifelong Learning is the continuous building of skills and knowledge throughout the life of an individual. It is the provision or use of both formal and informal learning opportunities throughout people's lives in order to foster the continuous development and improvement of the knowledge and skills needed for employment and personal fulfillment. Lifelong Learning crystallized as a concept in 1970's as the result of initiatives from three international bodies. In that one is the Council of Europe advocated permanent education, a plan to reshape European education for the whole life span. The second one is the organization for Economic Co-operation and Development (OECD) called for recurement education, as alternation of full-time work with full time study similar to sabbatical leaves. The third one is United Nations Educational, Scientific and Cultural Organization's (UNESCO) report (learning to be 1972), drew most attention and had the broadest influence.

The increased pace of globalization and technological change, the changing nature of work and the labour market, and the ageing of populations are among the forces emphasizing the need for continuing upgrading of work and life skills throughout life.

Lifelong Learning for Teachers

Teaching is a profession indeed a noble one, conceptually and ideally, and it is also different from other professions, because of its multitude of dimensions. Teacher occupies a significant place in the entire educational machinery and the true backbone of the educational system. The teacher shapes the future of young generation and therefore, he should continually renovate himself through Lifelong Learning to keep pace with rapid and recurrent changes. Gurudev Rabindhranath Tagore has rightly remarked "A Teacher can never teach unless he is still learning himself. A lamp can never light another lamp unless it continues to burn its own flame". For updating the knowledge and skills of teachers, there should be a continuous monitoring and evaluation of the quality of teacher education. Quality is not merely an act but it is a habit.

The Teacher education of the new millennium through its pre-service, in-service and open-learning system targets at producing quality teachers by providing quality education and training with top priority on Lifelong Learning based upon four pillars of

education like "Learning to Know/Learn", "Learning to Do", "Learning to Be", and "Learning to Live Together". The National Council of Teacher Education (NCTE) in India was established with a view of achieving planned and coordinated development of Teacher Education throughout the country and also for regulation and maintenance of norms and standards. It has been making endeavors bringing about improvement in quality and standards of Teacher Education.

With the view to find out the need and importance of pre-service and in-service education/training for teachers a study was conducted by us which is enumerated below:

Significance of the problem

This study undertaken is significant because it deals the academic problems concerning to Teacher Education of Primary, Secondary and higher secondary level. The findings of the study will be useful to educational planners, administrators and universities. It will provide empirical evidence at grassroots level to determine the problems of Teachers in the teaching-learning situation at all the levels. Moreover, the findings would help in identifying the priority areas where, there is a need for improvement for betterment of qualitative aspects of teaching-learning at various levels.

Objectives of the study

The objectives of the study included concept of Lifelong Learning, importance of Lifelong Learning for Teachers, importance of pre-service and in-service education and the role of Open Distance Learning and ICT in Teacher Education programme.

Methodology

Keeping in view the specific objectives an in-depth study of lifelong learning and Teacher Education Institutions' problems and prospects were taken.

Tools of Data Collection

The study was based on the data from secondary sources through published books on lifelong learning, reports on Teacher Education, Journals and Newspaper clippings.

Analysis of the Data

The collected data was scrutinized and analyzed as per the following:

Teacher Education Programme

The teacher education is designed to equip the prospective teachers with in-depth knowledge, understanding and skills in those aspects for which suitable teacher education curriculum be developed for preparing teachers at different levels of school education, i.e., elementary, secondary and higher secondary. The teachers need to acquire the required skills to mobilize the community to work in union for total wellbeing of the school. For the purpose of equipping/developing the prospective teachers with good skills, provision of internship training with adequate duration is required.

Pre-Service Teacher Education

The pre-service teacher education needs to ensure that teachers understand how to enable students to move from their current knowledge and conception of reality using the well-crafted experiences to build more powerful conceptions that are robust enough to continue to assimilate further teaching. Re-orientation of teacher education ensures that teachers are furnished with necessary knowledge and skills to cope with the new demands placed on them. The teacher education programmes need to be reoriented to develop ideas and skills in teachers to teach for a sustainable future health, hygiene, sports, population issues and development.

In-Service Teacher Education

In-service teacher education is the essential part of teacher education and must draw their substance from the emerging needs and concern of education as faced from time to time. Along with the above, it must give emphasis on teachers' development programme with suitable link between the pre-service and in-service education. It must be treated as a continuum and must syringe new hopes and aspiration for Lifelong Learning/education.

The need for in-service education of teachers depends on the change in Educational Structure, Curriculum, Transactional Technique, Technetronic Educational input, evaluation system, management process and teachers' desire for refreshing and updating their knowledge. The professional survival and growth of teachers at least in part, is related to coverage in quality content and delivery of in-service programme.

Open Distance Learning

The concept of learning throughout life is emerging as one of the key aspects of the open distance learning. Distance education is not a choice but is a chance to develop person's self-confidence, reforming their skills and gain for professional growth. Open Universities are providing many sources of professional, non-professional programmes which one can pursue by sitting at home. The quality improvement of teacher education through open learning system can be one more option which can be adopted/availed for the benefit of the teachers and students.

Role of ICT in Teacher Education

Information Communication Technology (ICT) in teacher education has the capacity to accelerate major changes both in pre-service as well as in-service teacher education for professional development. Today's students live in global knowledge based age and they deserve the teachers who practice/embrace the best that technology can bring to learning. The role of the teacher will change from knowledge transmitter to that of learning facilitator, knowledge guide to knowledge navigator and co-learner with the student.

The ICT provides a powerful tool to support the shift in student centered learning and new roles of teachers and students. For successful integration of ICT in teacher education, the teacher educators have to demonstrate their ICT competencies in teaching-learning situations. There are some essential learning environments for successful implementation of ICT in teacher education such as (a) Shared vision (b) Access (c) Skilled educators (d) Professional development (e) Technical assistance (6) Content standards and curriculum resources (7) Assessment (8) Community support and (9) Support policies.

Findings

- Traditional methods of teaching, outdated knowledge and aptitude pose difficulties in coping with the fast changing ICT and new intellectual challenges being thrown-up by the changed global context.
- Most of the teacher training colleges adopt the technique of lecture method and expecting prospective teachers to adopt child – centered approach in their own classrooms is not realistic.
- Lack of audio-visual aids, library, science lab in schools, seating arrangements, proper lighting, ventilation and demonstration table, etc.,
- Lack of coordination and cooperation between the schools and teacher training institutions.
- Lack of guidance from the teacher educators.
- Inadequate academic, professional and pedagogic preparation and insufficient level of knowledge and skills of the prospective teachers.

Suggestions

Following are the suggestions to develop the quality and competence among prospective teachers:

- There is an urgent need to improve the infrastructure and quality instructional material for enhancing the standard of teacher training institutions.
- Emphasis should be given to modern technologies in day-to-day teaching-learning process for creating interest among the students.

- Compulsory internship along with teaching practice for the sake of actual school experience like conducting morning assembly, maintaining student's attendance register, organizing co-curricular activities and preparing timetable, etc.
- Basic computer skills should be made compulsory for prospective teachers for making teaching-learning more effective, forceful and interesting.
- Human rights and peace education should be incorporated in teacher's training programmes to train the prospective teachers about peace, human rights and universal values.
- Enforcing regular supervision and inspection by the university authorities may improve the functioning of the teacher's training institutions.
- Autonomy may be given to teacher training institutions to innovate and take-up the need based action research.
- A nationwide review of teacher education curriculum in the light of school curriculum, renewal exercise must be taken-up immediately with assured follow-up after every five years.
- Each teacher education institution must prepare a master plan for itself, which will be reviewed quarterly by the staff council for monitoring the progress.

Conclusion

Teacher Education programme should articulate effectively the concerns and commitment of education as a social reconstruction. It must address seriously the functionality and excellence at national and international levels so that the concept could be translated into precepts, theories and practice. It is important for the education system to make parallel changes in order to fulfill its objectives in preparing students for the world beyond the classrooms. There is a need for the teacher educators as well as prospective teachers to keep burning their desire of learning and become acceptors and not receptors of the change in order to keep pace with the changing scenario. In this background we can truly say Lifelong Learning is a tool for quality improvement in teacher education.

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Lifelong Learning in Higher Education – Role of Universities

- A. R. Supriya

Lifelong learning as a recipe for learning throughout life dates back to 1970s. It has broad connotations of inclusive learning which transcends all manmade boundaries, encompasses heterogeneous cultures, races, genders, skills and addresses and discusses all existential themes. Lifelong learning is unique as a transdisciplinary approach to learning. It converges all streams of learning and contributes to a learning society. It has personal, societal and global development perspectives. Lifelong Learning, as an evolutionary concept may be defined as “All purposeful learning activity undertaken throughout life on an ongoing basis with the aim of improving knowledge, skills and competence within a personal, civic, social and /or employment-related perspective”. (EU Memorandum on Lifelong Learning, 2000). The Belem Framework for Action recognizes that Lifelong Learning has a critical role in addressing global educational issues and challenges. Further, it states that “Lifelong Learning ‘from cradle to grave’ is a philosophy, conceptual framework and organizing principle of all forms of education, based on inclusive, emancipator, humanistic and democratic values; It is all –encompassing and integral to the vision of a knowledge-based society”. (Belem Framework for Action 2010). The framework endorsed the four pillars of learning recommended by the International commission on Education for the twenty first century, namely, ‘learning to know, learning to do, learning to be and learning to live together’ (Belem framework for Action, 2010). The humanistic perspective of Lifelong Learning is justified and testified in the Belem Framework for Action, moving more towards a socialistic framewok.

Relevance

- **Learning is a continuum:** Societies are always in a flux. Latest knowledge and skill equip one to cope with change and transformations.
- **Learning is universal** especially in the new world order, where spaces and individuals are closer, yet strange. So learning inevitably crosses the boarders of space and countries to keep one up to date and closer to others
- **Learning to update:** updating of knowledge and skills are required to respond to the emerging demands of technological advancements and changing work, cultural, economic and health scenario.
- **Demographic parameters:** population ageing, increasing rate of literacy especially female literacy, decreasing birth and death rates, high life expectancy, varied IMR, urbanization and migration of young /productive population especially in developing countries, aggravated by changing

morbidity patterns and life style diseases, demand meticulous survival strategies, for which Lifelong learning can offer substantive recipes.

- **Demographic dividend:** demands millions of qualified skilled workers, world over in general and India in specific, one of the rarities of the present era.
- **Survival threats** like environment degeneration, dwindling agriculture, decreasing productivity, increasing cost of production, inflation, high rate of unemployment, sky rocketing price, etc are to be addressed and conscientised.

In short, Lifelong Learning appeals "not only to economic, occupational and practical needs but also to create opportunities for reflection and dialogue that would help individuals of all age groups to effectively cope with life. Lifelong learning should appeal to the totality of a person – heart, body and brain-and more importantly to our existential values and emotions" (Anonuevo, et.al.2001).

Lifelong Learning and Universities - India

Global discourse on Lifelong Learning had its reverberations in India too. The UGC launched the Scheme on Lifelong Learning and Extension in Higher Education during the XI Plan. The hither to Departments of Adult, Continuing Education and Extension were changed in to Departments of Lifelong Learning & Extension. Lifelong Learning evolved into a discipline of study, practice and research. Twelfth Five Year Plan also carries on with Lifelong Learning, especially under the MHRD programmes.

Nuances of Lifelong Learning were intrinsically woven in the framework of Higher Education, during the 1950s itself. Research and academic support to all kinds of learning for life were offered by the Departments of Adult Continuing Education, Extension, Extramural studies, etc, especially by the Universities of Rajasthan, Madras, S.V. Tirupati, SNTD Mumbai, etc. Nevertheless the implications quite often did not go beyond Adult Continuing Education. The wider philosophical, existential, economic, political and cultural premises were submerged into a plethora of activities scattered into various disciplines. A paradigm shift to Lifelong Learning was initiated by the UGC during the XI Plan.

Lifelong Learning in Higher Education- Relevance

- Lifelong learning, to be life – worthy, requires assessment and accreditation, especially in its both -economic and humanistic -perspectives. Higher Education with its research, extension and academic potential, shall be the right agency to identify learning needs, facilitate them and accredit prior and present learning. Further, it consolidates the knowledge accumulated through haphazard learning into an acceptable framework.
- XII Five Year Plan emphasis on Saakshar Bharat – Higher education can apply Lifelong Learning as an all-pervasive tool for learning and ensuring

gender, race, ethnic, culture fair campaign/flexi approach to literacy and Continuing Education. Higher education can also provide academic, research and extension base required for Saakshar Bharat and fill the lacunae.

- To address the threats of globalization, Updating of Skills, Acquisition of Skills, Identification of Skills required Recognition, Validation and Accreditation (RVA) of non- formal and informal learning and Identification of emerging requirements in academics, research and extension.
- To address Demographic dividend, offer Industry readiness programmes and facilitate academic – skill interface.

Role of higher education in Lifelong learning- Paradigm

The paradigm for Lifelong Learning in Higher Education has to be built upon the humanistic and economic perspectives and look into the factors, which urge Lifelong Learning in Higher Education.

The dichotomy of lifelong learning in Higher Education is its role to maintain lifelong learning as a discipline of study within the Higher Education system and simultaneously address the learning needs of the society, as an agency which promotes lifelong and life-wide learning for all strata and sections of society. The first and basic role makes it a conventional University Department while the second role demands a thorough deviation from it, even de-schooling! Based on this premise the Universities will have to assume roles which facilitate the following functions in Lifelong Learning:

- Provide academic and research support to Lifelong Learning:
- Fulfill the social obligation of the Department by –
- Introducing need- based Lifelong Learning programmes to the educated and employed
- Supporting the Literacy movement through academic, research, material development and training programmes
- Reaching out to the community through extension and outreach programmes and disseminating knowledge
- Undertaking research to explore areas of University - Industry, University – community, University – Health, University- media interface
- Broadening Lifelong learning perspective through inter-University collaboration and discourses
- Gaining international outreach and collaboration with agencies like UIL, UNESCO, EU, OECD, etc.
- Exploring new projects and opportunities to ensure-
- ❖ Social Justice / Social welfare.
- ❖ University - industry interface
- ❖ University- NGO interface
- ❖ Development of innovative disciplines , especially in interdisciplinary areas
- ❖ University - local self government interface

- ❖ Competency building of youth
- ❖ Enhancement of placement potential of youth
- ❖ Women empowerment through Lifelong Learning Programmes
- ❖ Proficiency building of employees
- ❖ University - Media interface
- ❖ Community mental health care programmes
- ❖ Establishment of consultancy service
- ❖ Visibility of extension through academic credits

The functions of Universities in Lifelong learning can be summarized as follows:

- ❖ Catalytic role in Lifelong Learning – Act as a focal agency in the University system for all Lifelong Learning programmes, and provide academic / research and technical resource support for extension and outreach activities, in collaboration with other departments of the University and other institutions
- ❖ Provide client centered learning programmes ranging from short term training programmes to Ph.D
- ❖ Provide inter/ disciplinary learning opportunities for all strata of learners
- ❖ Address the learning requirements ranging from housewives to retirees and design courses/ training programmes/ other services accordingly
- ❖ Provide academic and skill development opportunities for youth, the under privileged and marginalised
- ❖ Address the mental health issues of the community in general and youth in particular
- ❖ Strengthen networking with Industry and Institutions of placement potential and improve the employment scenario
- ❖ Strengthen Collaborative and networking role – apart from collaboration with other universities and colleges, networking with governmental and non-governmental agencies, international agencies and industries.
- ❖ Documentation, dissemination and evaluation –documentation of case studies, success stories, best practices in lifelong learning.

Proposal for Operationalisation

The paradigm placed below is an attempt to translate the above into a discipline of study and research and field of action. It is a proposition for University level Departments of Lifelong Learning and Extension. The translation of Lifelong learning in Higher Education is proposed through various Units under the Department of Lifelong Learning and Extension.

1. Discipline Programmes

Conduct integrated Discipline courses which are in sequential progression from Certificate to P. G. level and ensure learning opportunities to all sections of society.

2. Continuing Education

Facilitate the delivery of skills development and workforce development type training, along with academic programmes of up to one year duration. Workshops, Seminars, Certificate and Diploma courses, etc may be offered in a wide range of areas. Continuing Education credits can be awarded for programmes pursued through this Unit, as the pass outs of these programmes may gain entry into higher programmes and awarded credit transfers with CEU credits earned.

3. Research and Consultancy

Facilitate inter disciplinary studies leading to Ph.D for employees and adults. The Unit can design the use of technology in teaching, learning and research activities and offer consultancy services. It can undertake need assessment studies of the potential clientele of Lifelong Learning. Curriculum research shall be an integral component of this Unit. Joint International Research, to explore new directions in lifelong learning policies, in collaboration with international and national organizations like OECD, EU, UNESCO, UNFPA, UGC, etc and with researchers and government officials of such countries as which appreciate and execute Lifelong Learning also shall be undertaken by this Unit. It can also actively cooperate in survey and research projects undertaken by government ministries and agencies, local self government, institutions of higher education, and various other organizations.

4. Extension

Transfer the knowledge generated in Universities to the society. Deviating from the traditional concept of extension, this Unit can move to Community Open Defenses whereby proven knowledge is transferred directly to the society, eliminating all sorts of doubts. Interdepartmental and interuniversity level extension programmes can be chalked out.

5. Social Justice

Social justice inputs, aiming mainly at the socially and economically underprivileged youth and students shall directly be targeted by this Unit in collaboration with Government Departments and international agencies concerned.

6. Networking

Develop a networking strategy with different local, regional, national and international institutions so that the entire gamut of activities can be broad-based, strengthened and made visible in an international platform.

7. Career Guidance and Placement

Developing taxonomy of different levels of institutions and their programmes, identification of expertise and employment opportunities for the needy, examination and selection of Modular Employable Skills, preparation of aspirant and aptitude profile, placement bank, etc. can be done by this Unit.

8. Counselling

The Counselling Unit shall be the recipe to address the emerging mental health crisis and it shall be a soothing presence to all in dire necessity.

9. Professional Education

Offer customized training in a number of areas. The Unit can work with various government departments, cooperative entities and corporate sector to upgrade the skill level of their staff. Sustained continuing education to scientists, engineers and other professionals can be a collaborative effort with professional Institutions. The Unit may establish partnerships with external training institutions and firms to bring world class training and resources to local context.

10. Compensatory Academic Support

An alternative pathway to tertiary level education for those students who have the aptitude and the desire to pursue the same but are academically under prepared. The programme can offer a range of pre-college courses and academic support services that help students acquire the basic knowledge, skills and attitudes necessary to function effectively at tertiary level. The major target group of this Programme will be the participants of Continuing Education Programme conducted by NLMA institutions.

11. Technology-Assisted Lifelong Learning

Technology assisted lifelong learning aims at harnessing technology to support excellence in teaching, learning and research. It shall undertake research and consultancy on e-learning and technical projects, and develop high quality learning solutions. The Unit can undertake development services like online courses, identifying the best technology for learning requirements, production of multimedia interactive resources, design and development services for academic and commercial websites and user-friendly approaches to interactive tools and online community building.

12. Prior Learning RVA

Prior learning RVA focuses on using an alternative method for awarding transfer

credits to entry students. Assessors are to be trained in most discipline areas of the University and will be providing opportunities in each of these areas for students to access credits for experiential learning. In addition, the Unit can serve as an authorized agency for Prior Learning assessment to assess employee experience during recruitment, in areas where certification is lacking.

13. Documentation

Procures learning resources from different sources and be ready to disseminate them. Simultaneously the Unit has to document all the activities of the Department. Digitization and dissemination of documentation also is to be done.

14. Translation and Interpretation

Provide translation and interpretation services to cooperative, corporate and public clients. It can be the official translating agent of the government and is highly inevitable in the globalised corporate and PPP scenario. The Unit can also offer customized training in foreign languages and offer certificate level qualification in foreign language studies.

15. Learning in Retirement

Learning in retirement addresses the demographic peculiarity of ageing states and peer teaching for retirees can be a novel attempt of this Unit. Credit courses that meet during the evenings, provide online distance credit courses that are semester-based, facilitate self-paced and independent learning, facilitate access to the outreach activities of the Department where they can involve and render service, etc also can be offered. The Unit can also look into the learning needs of the retirees in other Units if they desire so.

Discussion

Centre staging Lifelong Learning from the peripheries is part of the effort towards social justice. Higher Education is one of the most effective media for this momentous task. It is a deviation from the oft-travelled road and requires thorough de-schooling. De-schooling, again, creates confusion and resistance too. Unless the lifelong personnel are not ready to meet this challenge the whole exercise may go astray. Tools and modes of de-schooling are to be drawn meticulously, for which the above proposal for operationalisation may work out. "If learning involves all of one's life, in the sense of both time-span and diversity, and all of society, including its social and economic as well as its educational resources, then we must go even further than the necessary overhaul of 'educational systems' until we reach the stage of a 'learning society'. (Preamble, xxxiii, Faure)

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Skill Development Opportunities in Lifelong Learning

Rashid Hussain

In a globalised world education and skill development is essential for an individual as well as for the development of the nation. Mere literacy alone is neither sufficient nor adequate to enable citizens to prepare for changing market economy and knowledge society. Lifelong Learning plays a central role in developing skills and it is the vital investment for human and economic development. "Skill development is essential for increasing the productivity and sustainability of enterprises and improving working conditions and the employability of workers."¹ In order to secure the job as well as navigate in the labour market, women and men need technical skills to perform specific tasks as well as core work skills: like learning to learn, communication, problem-solving and teamwork. Development of core skills, awareness of workers' rights and an understanding of entrepreneurship are the building blocks for lifelong learning and capacity to adapt to change. "Skill development is extension of the educational process. It prepares a person not only for a specific job but also for life. Having acquired meaningful and relevant skills, the person is better positioned to engage in productive work. In the process, he moves towards self-reliance and adds to his self-esteem".² Also, this elevates, in varying degrees, his status in the family and neighbourhood. Given perseverance and opportunity, he is able to exploit his talents and potential and more often than not, to prosper. In fact, in the present environment denoted by openness and liberalization, rags-to-riches stories of skilled person abound throughout the length and breadth of the country. Doubtless, these persons are moving up on economic and social ladder and also contributing to the development of the country.

"Human resource is treasure, which can be put into a productive channel. This is the need to enhance their skills and it can be done through the lifelong learning and it gives a second chance to unskilled labours to maintain the gap between personal and professional development".³ Lifelong learning makes an individual self-sufficient, self-dependent and it will develop skills and generate employment opportunities. Skilled men/women may be used as a device to wipe out poverty.

Lifelong Learning

"Learning is the need and condition for improving the capabilities and empowering an individual to be efficient in various fields. It is a potential instrument of individual wellbeing as well as social development. It is closely related with specific skills that

many employers look for".⁴ Thus learning has been known to increase productivity of individuals', profitability of employers and aid on national development. It is an organized process to understand the ideas that are relevant to our daily life problem non formal and informal learning. Lifelong Education and learning has generated considerable interest among educationists across the nations. "The report to the International commission on the Development of Education (1972) has recommended Lifelong Education as a master concept for educational policies in the years to come for both developed and developing countries. In 1996 UNESCO report of International Commission on Education for 21st Century reiterated that the concept of learning throughout life emerges as one of the key to the 21st Century".⁵

Lifelong learning is the provision for both formal and informal learning opportunities throughout peoples' lives in order to foster the continuous development and improvement of the knowledge and skills that are needed for employment and personal development. It ensures efficiency and effectiveness in our day to day life. Learning is a prerequisite essential condition for acquiring and applying knowledge used for taking decisions and for solving problems. In short, it is necessary for successful living and for improving the quality of life.

Lifelong Learning in India

The Lifelong Learning has been repeatedly stressed in several educational policy documents and discourses in India. While the 'Report of the Education Commission (1964-66) observed that education doesn't end with schooling but is a lifelong process'; the National Policy on Education in India (1986) considered "Lifelong Education as the cherished goal of the educational process which presupposes universal literacy, provision of opportunities for youth, housewives, agricultural and industrial workers and professionals to continue the education of their choice at the pace suited to them".⁶

The National Literacy Mission launched in 1988, gave a fillip to adult education programmes which led to the emergence of the concept developmental literacy. Aiming at higher participation of the disadvantaged and underprivileged, adult education programmes created awareness about development schemes of the government. This included components of self-reliance in basic literacy and numeracy, social awareness, acquisition of relevant skills and imbibing the values of national integration, conservation of environment. The inclusion of gender equity underscored the need for empowerment for women. The imperative of strengthening the economy necessitated that functional literacy and lifelong learning is included in its ambit. The focus of government is increasingly on their vocational education and skill training needs. The target was to achieve 80% literacy rate, to inculcate general awareness about conscious attitudinal responses to balance gender disparity by reducing the gender gap in literacy to 10% and to reduce regional and social disparities through polyvalent education. This contribution continued focus of India's adult and lifelong learning

programmes on adult basic literacy and continuing education which in turn generates the need for trained manpower. However, it was the organisation of two international conferences on Lifelong Learning in India and the formulation of the Mumbai and Hyderabad Statements on Lifelong Learning in 1998 and 2002 which highlighted Lifelong Learning as a guiding principle and overarching vision that seems to have publicized the concept. "The Hyderabad statement on Lifelong Learning clarified the role of lifelong Learning in creation of a learning society and learning community. It emphasized empowering people, expanding their capabilities and choices in life and enabling individuals and societies to cope with the 21st century".⁷

"With the formulation of the Eleventh Five Year Plan (2007-2012), the Government of India put forward the idea of expanding the scope of Continuing Education Programmeme by developing it as Lifelong Education and Awareness Programmeme (LEAP). This may be partly influenced by the global discourse on Lifelong Learning and partly due to the socio-economic changes taking place within and outside the country".⁸ There are a wide variety of Lifelong Learning opportunities to all sections of the society. These opportunities provided via Continuing Education Courses both through Universities and community based centres, Equivalency Programmeme, Quality of Life Improvement, Individual Interest Promotion Programmes, Vocational Education/Skill Training etc.

Skill Development

The International Labour Organization defines employability skills as:

"The skills, knowledge and competencies that enhance a worker's ability to secure and retain a job, progress at work and cope with change, secure another job if he/she so wishes or has been laid off and enter more easily into the labour market at different periods of the life cycle. Individuals are most employable when they have broad-based education and training, basic and portable high-level skills, including teamwork, problem solving, information and communications technology (ICT) and communication and language skills. This combination of skills enables them to adapt to changes in the world of work".⁹

Skill Development is critical for economic growth and social development. Skill development is an important drive to address poverty reduction by improving employability, productivity and helping sustainable development and inclusive growth. It facilitates a cycle of high productivity, increased employment opportunities, income growth and development. One of the significant drawbacks of our education system is; it does not bestow appropriate magnitude to vocational education and training. There is a great disparity between the 'skilled manpower requisite and skilled manpower obtainable'. "Millions of graduates are churned out but, they are not those who have skills required by the industries, this tendency would harm our prospects of growth more in the long-run, there is a need to change the attitude of our people as

we look at skill training as if it is below one's dignity. Skill development training programmes and courses should be promoted and general public should be made aware of their immediate benefits and opportunities".¹⁰ A major justification for skill training has been the notion that acquisition of skill improves the chances that the unemployed or underemployed would find stable wage-employment. In respect of economically and academically disadvantaged young people, vocational skills are a little more appropriate means of improving their employability than general education.

Lifelong Learning for Skill Development and Employability

The genesis of Lifelong Learning in India is inextricably associated with the socio-economically rooted problems of those sharing multiple handicaps of economic deprivation and marginalization. It hinges on the underlying twin issues of migration and unemployment. Two factors are considered to be primarily responsible for urbanization. The first is the rapid industrial development in and around metro-cities. The second reason is the large scale migration from rural to urban areas for employment attributed to poor employment in villages due to underdevelopment and dwindling livelihood options. Cities appear to hold a promise of employment of socio-economic mobility. The combined effect of the two factors has encouraged migration to cities and thereby increased the urban population resulting in critical socio-economic problems particularly for first generation migrants and deprived communities. Similar conditions affect people at the periphery of cities who are employed in neighbouring urban areas. The precipitation of rural to urban migration increases the quantum of a large transient group of workers along with micro-traders in the informal sector of the urban economy which provides cheap labour primarily for manual labour. This group of workers and their families can benefit from skill development through lifelong learning by developing and upgrading their employable skills and thus increasing their capability for income generation.

Skill development is instrumental not only in improving employability but also in creating sustainable enterprises for economic growth of the nation. Planning for skill development needs to synergize the supply of trained workers according to the mutating dynamics of employment. One such challenge is to determine the appropriate balance of technical skills and employable skills for the workplace. "The definition of employability is complicated by the coexistence of different perceptions of what it means to be employable. Employability is the career potential defined as 'the continuous fulfilling, acquiring or creating of work through the optimal use of competencies'.¹¹" "Basic skills enhance workers' abilities to learn new information and techniques and make the future workforce more adaptable to change".¹²

In response to the changes of necessary workplace skills, lifelong learning programmes have to identify knowledge and skill levels needed in the future workforce. While deficiencies in basic workplace skills are not a new problem, their growing numbers poses a challenge, emerging from a volatile mix of demographic, economic, and technical forces. In this context, lifelong learning programmes incorporating

functional literacy and skill-training in vocational courses is envisioned as a mechanism to reduce the vulnerability of this social segment by creating opportunities of employability to overcome factors that act as barriers to meeting their aspirations and thus empowering them. The gap between the requirements of the industry and the availability of skilled manpower is highlighted the disjunction between skill-availability at the operational level and the need for strengthening the curriculum and infrastructure of vocational training institutes like Industrial Training Institutes (ITIs), Apparel Training and Development Corporation (ATDC) and Polytechnics in India, it underscores the need to impart specialized training programmes for the unskilled and semi-skilled workers. The shortfall in the target achievement of Eleventh Five-year Plan has necessitated greater impetus on skill building in the Twelfth Plan Approach Paper as a way to improve worker-effectiveness and to boost economic growth and social empowerment.

There has been a concerted impetus of the government and policy-makers on incorporating skill-development with lifelong learning in order to synergize the need for generating employment opportunities to the youth and fill the competency requirement of the industry. Employability involves the creation of linkages between education and employer. Formal knowledge may not be the most important attribute sought by all employers for employment at different levels. Employers are interested in recruitment of not only educated and professionally trained graduates but also of workers at lower levels for skill-based tasks. It therefore becomes necessary to create an integrated education system which can enable the production of a critical mass of skilled manpower at an accelerated pace. With increasing numbers and diversity of industries there is a corresponding need for lifelong learning education and skill training suitable for employability. This implies that forging backward and forward linkages between the industry/employers and education/employees, whether at the higher levels of the organization or the lowest, are mutually beneficial.

Lifelong Learning Programmes in India

The Government of India plays a key role in the promotion of lifelong learning programmes mainly through the skill development. In India skill development training is centralized with Ministry of Human Resource Development (MHRD), Ministry of Labour & Employment (MOLE) and the newly created Ministry of Skill Development and Entrepreneurship. Apart from these three ministries there are around 15 more ministries and department which provide skill training programmes in India as per the need of the beneficiaries they cater to.

Some important skill development programmes are as follows:

Industrial Training Institutes (ITIs) & Industrial Training Centres (ITCs)

The Directorate General of Employment & Training (DGE&T) in the Ministry of Labour and Employment, Government of India initiated Craftsmen Training Scheme

(CTS) in 1950 by establishing about 50 Industrial Training Institutes (ITIs) for imparting skills in various vocational trades to meet the skilled manpower requirements for technology and industrial growth of the country. The second major phase of increase in ITIs came with the oil-boom in West-Asia and export of skilled manpower to that region from India. Several new private ITIs were established in 1980's in southern states mostly in Kerala, Karnataka and Andhra Pradesh from where trained craftsmen found placement mainly in Gulf countries. In 1980, there were 830 ITIs and the number rose to 1900 ITIs in 1987. During 1990's, the growth of ITIs had been steep and presently there are over 10,750 ITIs (2275 in government and 8475 in private sector) (in private sector they are called Industrial Training Centres – ITCs) having a total seating capacity of 15.22 lakhs.

Under the constitution of India, Vocational training is the concurrent subject of both Central and State Governments. The development of training schemes at national level, evolution of policy, laying of training standards, norms, conducting of examinations, certification, etc. are the responsibilities of the central government, whereas the implementation of the training schemes largely rests with the state governments and UT Administrators. The central government is advised by the National Council of Vocational Training (NCVT), a tripartite body having representatives from employers, workers and central/state governments. Similar Councils termed as State Councils for Vocational Training (SCVT) are constituted for the same purpose by the respective state governments at state levels.

Jan Shikshan Sansthan (JSSs)

Jan Shikshan Sansthan are vocational training institutions sanctioned to NGOs under the Scheme of Assistance to Voluntary Agencies by the Ministry of Human Resource Development (MHRD). These Sansthan were originally called Shramik Vidyapeeths. The Vidyapeeths used to cater to the vocational needs of migrant workers and their families came to cities and towns in search of employment. Subsequently, Shramik Vidyapeeths were renamed as Jan Shikshan Sansthan in the year 2000 to enable them to provide vocational training to illiterates, neo-literates and persons with rudimentary level of education with the mandate of covering both rural and urban areas. The Sansthan are funded by MHRD through annual recurring grant to meet the expenditures towards payment of emoluments to the members of the staff, office expenditure and programmes. These Sansthan offer skill training in variety of vocations in which theory portion is limited to the core knowledge of the vocations and practical aspects are more so that they perform well in work situation.

Krishi Vigyan Kendras (KVKs)

The Education Commission (1964-66) recommended that a vigorous effort be made to establish specialized institutions to provide vocational education in agriculture and allied fields at the pre and post matriculate levels to cater the training needs of

a large number of boys and girls coming from rural areas. The Commission also suggested that such institutions be named as 'Agricultural Polytechnics'. The recommendation of the Commission was thoroughly discussed during 1966-72 by the Ministry of Education, Ministry of Agriculture, Planning Commission, Indian Council of Agricultural Research (ICAR) and other allied institutions. Finally, the ICAR mooted the idea of establishing Krishi Vigyan Kendras (Agricultural Science Centres) as innovative institutions for imparting vocational training to the practicing farmers, school dropouts and field level extension functionaries.

The mandate of KVKs is technology assessment and demonstration for its application and capacity development. To implement the mandate effectively activities envisaged for each KVK included - on-farm testing to assess the location specificity of agricultural technologies under various farming systems, frontline demonstrations to establish production potential of technologies on the farmers' fields, capacity development of farmers and extension personnel to update their knowledge and skills on modern agricultural technologies, to work as Knowledge and Resource Centre of agricultural technologies for supporting initiatives of public, private and voluntary sectors in improving the agricultural economy of the district and provide farm advisories using ICT and other media means on varied subjects of interest to farmers. In addition, KVKs would produce quality technological products (seed, planting material, bio-agents, livestock) and make it available to farmers, organize frontline extension activities, identify and document selected farm innovations and converge with ongoing schemes and programmes within their mandate.

The first KVK, on a pilot basis, was established in 1974 at Puducherry (Pondicherry) under the administrative control of the Tamil Nadu Agricultural University, Coimbatore. At present there are 645 KVKs, out of which 438 are under State Agricultural Universities (SAU) and Central Agricultural University (CAU), 55 under ICAR Institutes, 100 under NGOs, 35 under State Governments, and the remaining 17 under other educational institutions.

AJEEVIKA - National Rural Livelihood Mission (NRLM)

AAJEEVIKA - National Rural Livelihoods Mission is under the Ministry of Rural Development, Government of India. The aims of the Mission are to create efficient and effective institutional platforms of the rural poor enabling them to increase household income through sustainable livelihood enhancements and improved access to financial services. The Mission has set an agenda to cover 7 crore BPL households, across 600 districts, 6000 blocks, 2.5 lakh Gram Panchayats and 6 lakh villages in the country through self-managed Self-Help Groups (SHGs) and federated institutions and support them for livelihoods collectives in a period of 8-10 years. In addition, the poor would be facilitated to achieve increased access to their rights, entitlements and public services, diversified risk and better social indicators of empowerment. NRLM believes in harnessing the innate capabilities of the poor and complements

them with capacities like information, knowledge, skills, tools, finance and collectivization to participate in the growing economy of the country.

Deendayal Antyodaya Yojana-National Urban Livelihoods Mission (DAY-NULM)

The main objective of Deendayal Antyodaya Yojana-National Urban Livelihoods Mission is to reduce poverty and vulnerability of the urban poor households by enabling them to access gainful self-employment and skilled wage employment opportunities, resulting in an appreciable improvement in their livelihoods on a sustainable basis, through building strong grassroots level institutions of the poor. The mission aims at providing shelters equipped with essential services to the urban homeless in a phased manner. In addition, it also addresses livelihood concerns of the urban street vendors by facilitating access to suitable spaces, institutional credit, social security and skills to the urban street vendors for accessing emerging market opportunities.

Rural Self-Employment Training Institutes (RSETI)

Lakhs of youth are entering the job market every year after completing their school/collegiate education. Non-availability of corresponding employment opportunities in the organized as well as unorganized sector has increased unemployment. The entry of automation and mechanization in every sphere of commerce and administration due to the advent of science and technology has further accentuated the problem. On the rural side, the employment potential in agricultural economy also appears to have reached a saturation level leading to large scale migration of manpower from rural areas to urban areas adding woes and pressure to already over strained civic infrastructure. Millions of unemployed youth particularly from rural and semi-urban background who could not access higher professional education but oriented towards white collar jobs are driven to despair for not finding a job. Of late, these distressed youth are attracted towards antisocial activities for their livelihood. This tremendous waste of human resources and mismatch of potentiality with productive deployment has baffled the planners and administrators. The situation calls for urgent steps to provide increased employment opportunity in the rural and semi-urban areas itself to check the shifting of resources resulting in improved economic status. All these clearly indicate the need for promoting self-employment entrepreneurial ventures among the unemployed youth and women

Hence, Ministry of Rural Development sanctions Rural Self Employment Training Institutes to have dedicated infrastructure in each district of the country to impart training and skill up-gradation of rural youth geared towards entrepreneurship development. These training institutes are managed by banks with active co-operation from the Government of India and State Governments.

Pradhan Mantri Kaushal Vikas Yojana (PMKVY)

Pradhan Mantri Kaushal Vikas Yojana is the flagship scheme of the Ministry of

Skill Development & Entrepreneurship (MSDE). The objective of this Skill Certification Scheme is to enable a large number of Indian youth to take up industry-relevant skill training that will help them in securing a better livelihood. Individuals with prior learning experience or skills will also be assessed and certified under Recognition of Prior Learning (RPL). Under this Scheme, Training and Assessment fees are completely paid by the Government.

The key components of the Scheme are:

- Short Term Training imparted at PMKVY Training Centres (TCs) to benefit candidates of Indian nationality who are either school/college dropouts or unemployed. Apart from providing training according to the National Skills Qualification Framework (NSQF), TCs also impart training in Soft Skills, Entrepreneurship, Financial and Digital Literacy. Duration of the training varies per job role, ranging between 150 and 300 hours. Upon successful completion of their assessment, candidates shall be provided placement assistance by Training Partners.
- Individuals with prior learning experience or skills shall be assessed and certified under the Recognition of Prior Learning component of the Scheme. This aims to align the competencies of the unregulated workforce of the country to the NSQF. To address knowledge gaps, Project Implementing Agencies need to offer Bridge Courses to RPL candidates.
- The Special Projects component of PMKVY envisages the creation of a platform that will facilitate trainings in special areas and/or premises of Government bodies, Corporates or Industry bodies, and trainings in special job roles not defined under the available Qualification Packs (QPs)/National Occupational Standards (NOSs). Special Projects are projects that require some deviation from the terms and conditions of Short Term Training under PMKVY for any stakeholder.
- Social and community mobilization is extremely critical for the success of PMKVY. Active participation of the community ensures transparency and accountability, and helps in leveraging the cumulative knowledge of the community for better functioning. In line with this, PMKVY assigns special importance to the involvement of the target beneficiaries through a defined mobilization process. Training Partners to conduct Kaushal and Rozgar Melas every six months with press/media coverage; they are also required to participate actively in National Career Service Melas and on-ground activities.
- PMKVY envisages linking the aptitude, aspiration, and knowledge of the skilled workforce it creates with employment opportunities and demands in

the market. Every effort thereby needs to be made by the PMKVY Training Centres to provide placement opportunities to candidates, trained and certified under the scheme. Training Partners also need to provide support to entrepreneurship development.

Saakshar Bharat

Saakshar Bharat, a programme of Ministry of Human Resource Development has four broad objectives and they are – impart functional literacy to non-literate adults, enable neo-literate adults to continue their learning beyond basic literacy to acquire equivalency to formal educational system, impart non-literate and neo-literate adults relevant skill development programmes to improve the earning and living conditions and promote learning society by providing opportunities for the neo-literate adults for continuing education. For this Jan Shikshan Sansthan are institutionally network with the adult education centres so that they impart skill development training as well as literacy linked vocational training. The Sansthan in coordination with the District Implementing Agencies will enlist neo-literates for appropriate skill development training. The same way the State Literacy Mission Authorities and District Implementation Agencies develop synergies with other agencies in the public as well as private sector for enhanced opportunities of skill development training at the Gram Panchayat level.

Conclusion

The primary aim of lifelong learning is not only to provide the skills to cope with the written words in everyday life, but to enable them, to gain greater freedom, to make choice to have a better grasp of the real life, to enhance personal liberty and to have other sources of knowledge. The lifelong learning and skill development are interrelated and inter-dependent. Progress of one cannot be achieved without the other as both are mutually interactive and beneficial. Therefore, both have to go hand in hand to achieve the target of total human development. In today's world technology is used in all aspects of life and hence, lack of literacy and education is a great deprivation which leads to many more deprivations and deficiencies. So it is all the more important that lifelong learning and skill development programmes should be made more popular among the deprived sections of the society through all sorts of media so that it reaches the persons concerned.

Footnotes

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⁵Anjali Pahad., (2012). Role of Universities in Lifelong Learning for Elderly People. *Asian Journal of Home Science*, 7 (2): 600-60. (www.researchjournal.co.in)

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⁹HRD Recommendation 195, 2004; this was reinforced in the Resolution on Youth Employment 2005.

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Challenges Relating to Quality of Teacher Education

Shalini Pandey

A dynamic and progressive society has find ways and means to resolve the issues and solve the problems, which it faces in any sphere of life. Education development has always been a forerunner of social change and development. Therefore, we have been striving hard to find appropriate responses to challenges in the field of education so as to make it a powerful vehicle of social change. The success of an education system largely depends upon the quality of teachers available to it again the quality of the teachers depends upon the quality of the education. The Education Commission (1966) has echoed this in their report when they said that a sound programme of professional education of teachers is essential for the qualitative improvement of education. Investment in teacher education can yield very rich dividends because the financial resources required are small when measured against resulting improvements in the education of millions. Therefore, teacher education today forms an integral part of any educational system. Different education commissions, various committees and National Commission for Teacher Education (NCTE) have voiced the growing concern for teacher education.

During the last sixty nine years after independence there has been rapid growth of education at all levels. The unprecedented increase in enrolment every year needed even increasing number of teachers as well as more and more schools as a result quality of education was sacrificed for the sake of quantity in education. Teacher education facilities could not be increased as rapidly as required to produce the number of teachers needed for increase in enrolment at school level. As a result untrained persons with low academic qualifications are engaged as teachers. Schools and colleges that are set-up could not be properly equipped with educational infrastructure. Many new ill-equipped and understaffed teacher education colleges also sprang up and started preparing untrained teachers who are given certificates which undermined the standard of teacher education.

Some of the major challenges and remedies related to quality teacher education are discussed here:

Artificiality in courses of studies both in theory and practice

Teacher Education courses at different levels are the continuation of the patterns adopted more than a quarter of a century ago. They embody course content, which is not helpful in preparing an effective teacher. The theory courses in particular have no articulation with practical work and teaching skill requirements. The application of

theory to practice is recondite and leaves enough room for revision and restructuring. The weightage on content is negligible. There is no conceptual framework in the overall course structure.

The practice teaching course as prescribed has assumed the form of a meaningless ritual and its carry over potential in the development of a dynamic strategy for handling instruction problems in actual classrooms is very poor.

Ineffective methods of teaching

Teacher education all over the country is averse to innovation and experimentation in the use of methods of teaching. They have shown a remarkable allegiance to the traditional method of instruction, viz, lecturing and dictating of notes. Their acquaintance with modern classroom communication devices is inadequate. In many cases the lectures given are dull, monotonous and uninspiring.

Little or no interaction with the main academic stream of university

The teacher education departments in the states are cut-off from the mainstream of education and isolated. There is nothing exemplary in them on the basis of which they may function as models. The university departments treat the teacher training section as something inferior to others. They shun away from the idea of collaborating in any programme sponsored by teacher education section. Even in areas such as evaluation, teaching methods and curriculum development, teacher education departments have not been able to make any dent.

Inadequate base of empirical research in various fields of teacher education

Research in education is considerably neglected. Whatever research is being reported is of a very inferior quality. The teacher education programmes have not been properly studied by under taking any systematic research. The result is that unwarranted suggestions based on mere speculation become the guiding principles in conducting teacher education programmes.

No inbuilt system for the professional development of teacher educators

There is little stimulus provided to the teacher educators for their professional growth, because of which even the summer institutes which are being run with the help of University Grants Commission (UGC) and National Council of Educational Research and Training (NCERT) are not able to deliver the goods. Most of such programmes are being conducted in a routine and un-imaginative manner. Even the association of teacher educators has deteriorated in quality as far as its deliberations are concerned. It has not contributed anything so far towards developing of a sound professionalization of teacher education.

Ineffective examination system

The examination system in teacher education is such that any adult person with some common sense and general education can easily pass the all important final examination. As a result, even in institutions which have good physical facilities and adequate staff, neither the students nor the teachers are serious about their work. Theory course are not taught properly and very little practical work is organized and the students know very little study is needed to pass the final examination. This indirectly encourages the establishment of institutions without requisite physical facilities and equipments, for these seemingly do not hamper their students from passing the teacher education examination.

Less emphasis on development of professional attitude

The curriculum of teacher education is such that it cannot develop the professional competencies required of a teacher. It only embodies some knowledge and information, which are desired the teacher trainees to possess. Till a year before the duration of the teacher training for secondary grade teachers was only ten months which was hardly adequate for any professional course. Fortunately, the need for increasing the duration of teacher education was felt and done now. However, the teachers trained in the old pattern still continue to be in service. Modernization of curriculum with considerable emphasis on development of practical skills and competencies required for making a good teacher.

The consequence of the inadequate and short duration teacher training made the student teachers only talk about the methods but cannot use them with facility and ease. There is absolutely no manifest or learnt concern on the part of teacher educators to achieve in planned and systematic way the awareness and control over the instructional and information technology.

Lack of proper facilities like practicing schools, laboratory, library and physical equipments

The teacher education programme is given a step motherly treatment in most of the Arts Colleges and the university departments. About 80% of the teacher education institutions are being run in rented buildings and hence, there is no facility for the experimental school or laboratory, library, and other equipments necessary for a good teacher education department. In most of the teacher education institutions there is no separate hostel facility for the student teachers.

No regulation of demand and supply in accordance with the requirements of subject teachers

The State Education Departments have in majority of cases no control in the

starting of post-graduate teacher education departments. The teacher education departments on the other hand have no data whatsoever on the basis of which, they may work out the desired intake for their institutions. There is a considerable lag between the number of teachers required and the number of teachers available to the market. This has contributed to the problem of unemployment and under-employment of a varying magnitude.

Commercialization and correspondence courses in teacher education

Commercialization of teacher education is another malady from which teacher education suffers today. In some states the teacher education programme has been commercialized and optimum saving is made through the revenue raised by such departments. In fact in many places the fee charged from the student teachers in B.Ed. colleges is more or less the same like that of Arts colleges. This practice has necessarily resulted in bad influence on the regular course of teacher education. Since the university gives the same degree to the products of both these courses, some teachers in regular teacher education institutions neglect their teaching and supervision of practical work. Thus the bad coin is driving out the good coin from circulation.

Quality of teacher education

This is generally reflected in the policies followed in the recruitment of teacher education too. The poor quality of teacher educators coupled with the substandard provision of facilities is largely responsible for lack of vigorous and dynamic programmes in the campus. The effort to build a proper democratic attitude through a community life gets undermined.

Actions needed to improve the teacher education

A scrutiny of the statement of problems will reveal that what is needed is a vigorous and planned action which should be supplemented with an inbuilt system of evaluation. The following points may be of some help in ameliorating the situation as it exists today:

- The course of studies, both in theory and practice should be reorganized. For this a programmatic research should be conducted by some universities to see what is the course structure which will be helpful for realization of the goals of teacher education? The ratio of theory and practical work should be specifically studied and a special programme should be developed for recording various types of practical work/practical activities which are required to be conducted in schools.
- The method of teaching in the teacher education departments should be such that it inspires a sense of appreciation among other departments of

the university and colleges. A teacher education department should, therefore, conduct innovative programmes in the directions like - Seminar, combining of seminar and discussions with lectures, team teaching, panel discussion and projects sponsored by the faculty members for improvement of learning in various spheres.

- For development of professional attitude it will be advisable to recognize the colleges of education as units in themselves. Such an institution should be equipped with facilities for organizing various types of activities such as daily assembly programmes, community living, social work, library organization and other curricular activities which promote democratic spirit of mutual appreciation and fellow feeling.
- There should be a planning unit in each State Education Department. The function of this unit should be to regulate the demand and supply of teachers at various levels of schools. This unit can also be given the responsibility of projecting future requirements of teachers in various categories.
- The teacher education department should be made a nucleus for research on teaching curriculum and evaluation in the regular university departments. It can also be entrusted the responsibility of sponsoring programmes for extension such as bringing the community into close contact with university academicians.
- The professional association of teacher education or teacher educator should be streamlined by broad-basing its present composition. It should include eminent scholars from different disciplines and teachers of various levels so that its professional strength is increased. For professional growth of teacher educators there should be seminars, summer institutes and research symposia at more frequent intervals.
- Teacher education through correspondence or other distance education modes should be allowed for first degree/diploma in teacher education which qualifies a person to teach in the school system because this mode of education is not suitable for developing practical skills, needed for a teacher. Such modes of education may however be allowed for further education of a teacher who has already obtained the basic qualification to teach through the regular full-time institutional programme.
- Commercialization of teacher education should be stopped, i.e. no teacher education institution should be allowed to operate as a profit making institution. The tuition and other fees collected from students should not be more than necessary for meeting the recurring costs of the institution. The capital expenditure for the institution should be obtained through endowment or from government.
- The teacher education curriculum and its implementation in teacher education institutions need considerable improvement. NCERT has prepared a framework for teacher education curriculum which has revised a few years ago. It is for the NCTE now to determine the important features of the teacher education curriculum which must be implemented by all teacher education institutions and also ensure their implementation. Among other things, the

curriculum should specify the nature of theory and practical teaching to be done, the teaching time and the method of evaluation of learning.

- The examination system in teacher education should be revised. There should be a continuous evaluation of learning with regular feedback to the students so that they are continuously informed of their shortcomings and helped by the teachers to overcome the deficiencies. The final grading of students should reflect the ability of the student to be a good teacher. A national level committee may consider the examination system of teacher education for reformation.
- It is an opinion of many educationists that one academic year is too short a period for developing the knowledge, skills, abilities, attitudes and values that a teacher should have. What should be the minimum duration of professional teacher education and how should it be effectively utilized? Is integrated teacher education as on Regional College (Now Institutes) of Education a better method of teacher preparation? What could be other alternate methods and structures of teacher education? How can innovation in teacher education be encouraged? These questions should be answered by a competent national body and implemented so that teacher education can really become professional.

Conclusion

If people believe and agree that "the destiny of India is being shaped in her classrooms" the teacher deserves greater attention, care and support. A good education system of teachers will ensure a good society which in turn will be an asset to the nation. Teachers are revered in India and are kept next only to mother and father but above the God. Such a position no one gets and hence, teachers must maintain the quality of teaching for which good training will be of great help.

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Our Contributors

Dr. Mridula Seth, Secretary, Richmond Fellowship Society (India), Delhi Branch, "VISHWAS", 30/3, Knowledge Park III, Greater Noida, Uttar Pradesh - 201 308 [e-mail: sethmridula@yahoo.co.in]

Dr. Aparna Khanna, Associate Professor, Department of Development Communication & Extension, Lady Irwin College, University of Delhi, Sikandra Road, New Delhi – 110 001 [e-mail: aparnakhanna2969@yahoo.co.in]

Sridhar Chimalakonda, Research Scholar, Software Engineering Research Centre (SERC), International Institute of Information Technology, Gachibowli, Hyderabad, Telangana-500032 [e-mail: sridhar_ch@research.iiit.ac.in]

Prof. Kesav V. Nori, Distinguished Professor, Software Engineering Research Centre (SERC), International Institute of Information Technology, Gachibowli, Hyderabad, Telangana-500032

Dr. B.P.Sahu, Associate Professor, Department of Adult Continuing Education, North-Eastern Hill University, Shillong, Meghalaya -793 022 [e-mail: bishnusw@yahoo.com]

Faisal Ali Khan, Research Scholar, Department of Law, Aligarh Muslim University, Aligarh, Uttar Pradesh – 202 002 [e-mail: fakmoon@gmail.com]

Sakti Pada Mandal, President, Satyen Maitra Janasiksha Samiti & Chairman, Indian Paulo Freire Institute, 2/14, Chinar Park, Rajarhat Road, Kolkata, West Bengal – 700 157 [e-mail: satyen_maitra_js@yahoo.co.in]

Dr. R.Anjaneyulu, Assistant Professor (C) & I/C Head of Department of Geography, Nizam College (Autonomous), Osmania University, Hyderabad – 500 001, Telangana [e-mail: anjaneyulurk@gmail.com]

Dr. M.V.Ramana, Principal, SSN College of Education, *Near MDO Office, Nuzvid*, Krishna District, Andhra Pradesh – 521 201.

Dr. A. R. Supriya, Director, Centre for Adult, Continuing Education and Extension, University of Kerala, Vikas Bhavan PO., Thiruvananthapuram, Kerala – 695 033. [e-mail: priyasooryan@yahoo.co.in]

Md. Rashid Hussain, Ph.D. Scholar, Department of Adult & Continuing Education & Extension, Jamia Millia Islamia, New Delhi-110 025. [e-mail: rashid.amzad@gmail.com]

Dr. Shalini Pandey, Principal, RVS College, SH-19, Porsa, Madhya Pradesh – 476 115 [e-mail: pan_sachin@rediffmail.com]

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The average length of a manuscript should normally be between 1500 and 2500 words; in exceptional cases, longer articles can also be accepted. Mimeographed, zexored or carbon copies of manuscripts will not be accepted. Manuscript should be typed in double space, on one side, with a 2" margin on A4 size paper. Footnotes and references should come at the end and not on every page. Authors are requested to submit one soft copy along with the CD (MS Word). Articles can be sent by E-mail at iaedelhi@gmail.com

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Recently there was a news item in one of the leading English Dailies about a former IIT Professor and his wife were rescued in a critical condition from their flat in Kanpur, Uttar Pradesh. It was reported that they have no children and almost disconnected from the society for long and forcefully adopted loneliness by locking the main door of the house. As they were not social, neighbours found to have neglected them and did not care what was happening inside the house. One day when some of the neighbours complained to the local police about foul smell emanating from that flat, police force opened the door and found to their horror that both professor and his wife lying in separate rooms unconscious and in fact his wife was not even having cloth on her body. They were rescued immediately, taken to hospital and admitted in ICU. Doctors have declared that their pulse rates are very low and are in danger.

This case may be of due to deep depression or psychological imbalance or insecurity or uncertain future or no care of the relatives and even society. Who is to be blamed? In fact, there are many such cases happening all over the country and only a few are reported and many are not reported at all about the old people. The pain of old people is much more in the lower strata of society which has no economic stability and if any expenditure to be curtailed, that falls first on the elderly people at home.

Old age is not a disease but a cycle of life, some face today and some others later. But everyone should understand that they have to cross this stage one day in their life. Unless they take care of their elders in the family and in a broader view the society also, a day will come they may face such a situation and regret cannot be a solution. In old age when health deteriorates and resistance power becomes less, diseases show their face. Hence, they need treatment and medication. At the same time to make them happy they need somebody to handhold them, may be their children or close relatives or the neighbours or the society or any government scheme specifically focusing the welfare of old people.

In the fast moving life, many times children live in faraway places in India and even in foreign countries. When they have moved for green pastures, they cannot leave those hands which have supported them as children and brought them to a level due to which they enjoy today the comfortable life. Neighbours and society may many times feel difficulty to support old people because of their own commitments or inabilities and in that case it may be appropriate that they are directed to or helped to avail government facilities so that they feel that there are some who care them. This satisfaction will go a long way to lead a better life and avoid monotony and loneliness.

There are a number of schemes for aged persons. Ministry of Social Justice and Empowerment gives financial assistance to maintain old age homes, Ministry of Rural Development gives old age pension, Ministry of Health and Family Welfare under National Programme for Health Care of the Elderly provide dedicated health care facilities, Ministry of Railways extends concession in the basic train fare, Ministry of Home Affairs helps regarding safety and security of older persons by police visiting them regularly. Anyone wants to help the elderly people can browse the internet and find the suitable scheme.

Dr.V.Mohankumar

Lifelong Learning Approach for Changing Mindsets to Empower Women of South Asia

Nasreen Rustomfram

Education is foundational to individual and collective success. To ensure access to education to all irrespective of gender or social category is an undoubted responsibility of society and the government. An education that enables citizens to acquire knowledge skills and attitudes is a necessity so that they may be responsible and active in the pursuance of their rights and duties. In more than one country in South Asia, it has been demonstrated that education is the single largest factor in providing social mobility. Large sections of socially and economically deprived people have been able to move beyond what otherwise would have been out of reach for them – higher education, employment and access to a better quality of life.

Against the unequivocal statements made above, comes the findings of the Second Global Report on Adult Learning and Education (UIL, 2013) that while illiteracy rates are declining, the absolute number of adults reported as unable to read and write is not decreasing fast enough to represent substantial progress. The report asks 'who is being left behind?' and answers "Women (representing globally two – thirds of all illiterates), but also men (especially in Europe and in some Caribbean Countries) (Pg 18, 2nd Global Report on Adult Learning and Education, UIL, Hamburg, 2013).

When young people including girls do not have access to education, they lose opportunities to socialize, acquire knowledge and gain skills and achieve a sense of autonomy which would contribute towards their overall well being and quality of life. Further, where girls and women are discouraged from getting education, they are unable to join the workforce and to enter gainful employment. They lose out on employment opportunities as compared to men who are considered to possess better skills. Working to remove this gender gap in education is imperative.

Legal Guarantees and Social Norms

Nine sovereign nations (Afghanistan, Bangladesh, Bhutan, Maldives, Myanmar, India, Nepal, Pakistan, and Sri Lanka) constituting the South Asian region have diverse socio-cultural, religious and ethnic contexts. Despite this diversity there are some common elements that impact the lives of women, forming a common pattern. That pattern is created by the inherent patriarchal system which cause lopsided development marked by disparate opportunities available to women resulting in their poor status in their societies. This patriarchal structure perpetuates discrimination and violence against women at the micro level within families and communities and at the macro level in the larger society and at national levels. Taking cognizance of this the South Asian Association for Regional Cooperation (SAARC) has made gender

equality central to its development agenda in all its member countries. Gender equality implies men and women having equal opportunities in-terms of access to sources of livelihood, health, education, as well as social, economic and political participation. Gender equality is clearly articulated in the SAARC Social Charter article VI titled *Promotion of Status of Women*. Part 2 of this article points out to the commitment of the 'State Parties to educate public opinion and to direct national aspirations towards the eradication of the prejudice and the abolition of customary and all other practices, which are based on discrimination against women and urged that all forms of discrimination and violence against women are violence against human rights and dignity which needs to be prohibited through administrative, judicial and legislative actions.' Commitment to gender equality took a concrete shape when it was recognized that gender inequality had its manifestation right from young age and so an intentional focus on girl child was necessary. SAARC declared the year 1990 as the 'Girl Child' year and the decade 1991-2000 as the 'Girl Child' decade (SAARC, Charter, 5). The concerted regional endeavor culminated in the historical 1995 Beijing Women's Conference which manifested in focused efforts towards survival, Protection and Development of Girl Child, Violence against Women and Girl Child, Equal access to educational opportunities, Equal access to Health Care and Nutrition through the life cycle approach. These measures manifested in different forms in the national contexts of the member countries. Amid all these efforts South Asia has witnessed violence against women at macro level through political conflicts in certain pockets of the region such as in Kashmir, Assam, and Nagaland, Maoist insurgency in Nepal and parts of India, insurgency in Sri Lanka, violence against women of North Western Frontier Province of Pakistan and in Afghanistan caused by restrictions imposed by the Shariat law. All these reflect the dominant patriarchal structure endemic in the societies transcending borders.

Constitutions of countries across South Asia guarantee to all women equality, prohibition of discrimination by the state, equality of opportunity, and equal pay for equal work. They also provide for making special enactments for women and children. They renounce practices derogatory to women's dignity and provide for just and humane conditions of work and maternity benefits. But till date, these guarantees remain a distant dream for many women in these countries. In India several women-specific laws, such as the Immoral Traffic (Prevention) Act, the Dowry Prohibition Act, the Indecent Representation of Women (Prohibition) Act, the Commission of Sati (Prevention) Act, and the Protection of Women from Domestic Violence Act have not acted as a deterrent. Despite these laws, despite several women occupying high offices, Indian women continue to face discrimination and violence. Dalit women are doubly oppressed. With sexual harassment, rape, acid throwing, 'honour killings,' selective abortions, bride burning and trafficking, India has been adjudged the "fourth most dangerous country in the world for women to live in" by the Thomson Reuters Foundation Survey, 2011. Offences against women are acts of aggression to establish that they are secondary citizens. This patriarchal culture confines a woman's role to the family for the sake of reproduction and household tasks, negating her contribution

to the nation's GDP. Marriage is considered the ultimate in her life, and the need to pay dowry makes a daughter a burden, leading to sex-selective abortions and female foeticides.

The Hindu Marriage Act prescribes the age of marriage for a girl as 18 but it does not say that the marriage of a girl below 18 is either void or voidable. A woman has no right to decide her partner and those who break this rule are murdered and it is called 'honour killing'. Domestic violence is endured by many women who have no alternative. Single/divorced women are considered 'available'. The UNICEF Report 2012 says that 57 per cent of Indian boys and 53 per cent of girls between 15 and 19 years think wife-beating is justified. The UNDP Human Development Report 2011 says India ranks 129 out of 146 countries in the Gender Equality Index, behind Bangladesh (112) and Pakistan (115). Given this scenario, it is not surprising that rape is the biggest crime where the victim is blamed for 'inviting' it. Rape survivors are often compelled to compromise by marrying the rapist. A 17-year-old girl who was gang-raped in November 2012 in Patiala killed herself as the police, without registering her complaint, pressured her to marry one of the accused. The family of the rape survivor often prefers not to complain as prospects of marriage are considered paramount. The honour of the family is more important than the dignity of a woman or her rights. The present political system facilitates sexual objectification of women in the media. Politicians make light of rape, asking for Skirts or jeans to be banned. In a 1996 survey of judges in India, 68 per cent said provocative clothing is an invitation to rape. A khap panchayat in Haryana, India recently barred women below 40 years from using mobile phones and from going shopping. Another suggested reducing the age of marriage for girls to 16 to prevent incidents of rape. The comments of another leader, that rape is an urban phenomenon in effect is a clear endorsement that rape of poor rural and Adivasi women can be ignored. Empowerment of women is a threat to the mindset of a patriarchal society and hence the increase in violence against women.

Nepal has established laws and legislations to address gender based violence. The Domestic Violence (Offence and Punishment) Act, 2009, and Regulation 2010, was passed to address domestic violence and provide a response system in case of rights violation. Additionally the law also provided for financial assistance to victims (Nepal National Review report, 2014)

Despite the existence of constitutional guarantees and legal statutes protecting women against inequality discrimination and violence, why do these persist and even display a marked tendency to increase?

In fact, violence against women is seen not only as a South Asian, but a global phenomenon and Sylvia Walby (1990) refers to male violence as a structure. She characterizes it as behaviour routinely experienced by women from men. Violence by men is condoned by the system and even legitimized when the arms of the State

like the judiciary and the police refuse to intervene against it by not filing First Information, Reports, not registering complaints of domestic violence, asking rape and molestation survivors to be compliant and marry their harassers etc. Despite civil society and the woman's movement having established that battering and rape are no longer a private affair the State continues to see it as just that.

For Mary Daly (1978), the custom of widow-burning in India the Chinese ritual of foot-binding, the genital mutilation of young girls in Africa, the massacre of women as witches in 'Renaissance' Europe, gynocide (female killing) under the guise of American gynecology and psychotherapy are all examples of female hating and violence against women, practiced in different cultures of the world (cited in Bhasin, 2005, pp. 13).

Across South Asia, voices of women and civil society have spoken up against these overt and covert practices of violence. Legislations have been framed and promulgated. Voices from the world of women's movements have risen in strident protest and struggled against forces which have consistently planned to silence them.

Despite this history of struggle and challenge, there is an evidence of rising tide of violence against girls and women. Acid attacks on women who refuse, the dictates of men who profess to 'love' them, kangaroo courts set up in towns and villages in defiance of the country's laws are but two "innovative" ways to pursue violence against women. There is irrefutable evidence to show that all the main institutions in society are patriarchal in nature. The family religion, law, political systems and institutions, media, educational institutions and knowledge systems are all entrenched in the patriarchal system and structure. All of them operate on the principles of hierarchy in which men are superior and women are subordinate. It is within the family that the first lessons in hierarchy, subordination and discrimination are learnt. Physical, sexual and psychological violence strikes women in South Asia across social and economic class, religion, race and ethnicity. Not only does it threaten her health and well-being it also works against efforts to reduce poverty.

Is Violence Preventable?

The International Centre for Research on Women (ICRW) categorically states that violence against women is preventable. The Washington-based organization advocates for a combination of efforts that address income, education, health, laws and infrastructure to significantly reduce violence and its traumatic impact. The strategies spelled out by them include:

- ◀ all abusive behaviour towards women must be viewed as unacceptable. (As mentioned earlier an UNICEF Report of 2012 reveals that 57 percent of Indian boys and 53 percent of Indian girls between the ages of 15 and 19 years think wife-beating is justified!!)

- 4 Communities need to have an important role in defining solutions to violence and providing support to survivors. (As against a tradition where survivors are treated with revulsion, natal homes refuse help to married daughters who are under threat of violence and molested or raped survivors are sold into the sex trade as they are considered non-marriageable).
- 4 Boys and Men must be included so that their perception of violence and the consequent behaviors that arise can be addressed. As agents of change they have to stand shoulder to shoulder with women to end violence (As against, justifying it on grounds of 'provoking' dressing, returning home after sunset, taking up employment outside the home, or wanting to select their own life-partners).

A Lifelong Learning Approach

The origins of the concept of Lifelong learning can be traced back to authors such as Basil Yeaxiee and Eduard Lindeman in England in the 1920's. They understood education as an ongoing process, affecting mainly adults, and certainly not restricted to formal school.

From the 1930's and up until the 1970's, Lifelong learning was closely linked to adult/popular education and the worker's education movement (Kearns et al: 1999). The focus at this time was on training workers, linking them to formal education and increasing the influence of the trade union movement by building their activist base.

The post-World War II period saw the decolonization of African and Asian nations and the rise of national - liberation movements in other Third World countries. Newly elected governments were required to implement literacy campaigns and massive expansion of education to build nationhood and incorporate new groups into the political process (Kearns et al: 1999). In response to the needs of these emerging nations, UNESCO took the lead in developing the concept of Lifelong Learning as a cultural policy which promoted social change. In 1972, UNESCO released the Faure report titled "Learning To Be". In this report, UNESCO outlines their vision of what they titled "education permanente", or permanent (i.e. lifelong) education, as encompassing the whole life span, being inclusive of different social sectors, occurring across different formal and informal settings (home, communities, workplaces), and addressing a broad range of social, cultural, and economic purposes (cited in Kearns: 2005).

The OECD's 'Lifelong Learning for All (or Delors) reports represented a major shift in the focus of lifelong learning. This report claims that lifelong learning is based on four pillars: learning to live together, learning to be, learning to know, and learning to do (cited in Robinson: 2000 and Kearns: 1999). The concepts of "learning to live together" and "learning to be" attempt to address social goals such as civic participation, social cohesion and democratic processes. On the other hand, the

concepts of "Learning to know" and "learning to do" address economic imperatives such as building a highly skilled and competitive workforce (Noonan: 2005). These last two "pillars" were given the most emphasis in the OECD report.

The Faure Report: Learning to be (1972) sought to institutionalise the concept of lifelong education (LLE) and advocated for the right and necessity of each individual to learn for her/his social, economic, political and cultural development. It enunciated that every individual must be in a position to keep learning throughout her/his life.

The Delors Report coming 28 years later gave more emphasis to LLL as linked to retraining and learning new skills that would enable individual/s to cope with the demands of the rapidly changing workplace. LLL today as it is promoted is more individual oriented, whereas LLE often referred back to the community. Given that the Delors Report was supported by strong voices such as the European Union (EU), the organization of Economic Co-operation and Development (OECD) and even the World Bank, it is not surprising that many developing countries including India started to develop their lifelong learning policies on these lines; putting aside their own traditional philosophies e.g. Buddhism which for centuries promoted continuous learning. The predominant economic interpretation of LLL is contentious and does not find favour with many educators and practitioners. (UIE, 2001).

In the last few years, this economic and vocational orientation has gradually come to be balanced by the introduction of citizenship education. The issue is how can the social, political and cultural aspects be brought back into LLL? How can processes of learning be tied to active participation in the community and its social, economic and political development?

Citizenship Education is essential for educating young people for shared democratic life. It enables people to make their own decision and to take responsibility for their own lives and their own communities. It is not about trying to fit everyone in the same mould or about creating a 'model' or a 'good' citizen. Democracies need active, informed and responsible citizens. Citizens who are willing and able to take responsibility for themselves and their communities and contribute to the political process.

The essential elements of Citizenship Education are:

Knowledge and understanding : About topics such as – laws and rules, the democratic process, the media, human rights, diversity, money and the economy, sustainable development and world as a global community ; and about concepts such as democracy, justice, equality, freedom, authority and the rule of law

- ◀ Skills and aptitudes : Critical thinking, analyzing information, expressing opinions, taking part in discussions and debates, negotiating, conflict resolution and participating in community action
- ◀ Values and dispositions : Respect for justice, democracy and the rule of law, openness, tolerance, courage to defend a point of view and a willingness to – listen to, work with and stand up for others

The most effective form of learning in citizenship education is:

- ◀ Active : emphasizes learning by doing
- ◀ Interactive : uses discussion and debate
- ◀ Relevant : focuses on real-life issues facing young people and society
- ◀ Critical : encourages young people to think for themselves
- ◀ Collaborative : employs group work and co-operative learning
- ◀ Participative : gives young people a say in their own learning
(<http://www.citizenshipfoundation.org.uk>)

Research now confirms what many know from experience: studying improves quality of life. A ten country survey of European countries (BeLL Project 2014) brings out conclusions to substantiate this statement. It concludes that:

- ◀ Adults experience mostly positive results after participating in liberal non-formal adult education. Learners with lower qualifications such as school-level or less reported most increase of learning motivation.
- ◀ The study found that social interaction breeds well-being. Participation, group cohesion, interaction and expansion of social networks generate diverse benefits - in addition to being a benefit in itself. Interaction brought about especially mental well-being, a sense of one's life having a meaning.

Amongst other recommendations, the study asks policy makers to consider subsidizing liberal adult education for those with low qualifications, as they stand to benefit the most. However, policy makers regard the findings as unrealistic for today's world where the paradigm of economic benefits rules supreme.

In fact participating in such learning would motivate people to also take up vocational education later on. This would be particularly true for people with low qualifications, young, marginalized and passive people. (<http://www.lline.fi/en/news/20142/bell-project>)

Several examples of women's groups in the Self-Help Groups (SHGs) movement bear testimony to the fact that wherever efforts to develop resourcefulness and self-confidence has gone hand-in-hand with economic objectives such as savings and

investment, women have benefited through enhanced self esteem and an increased self-image. This has also encouraged them to participate in their own development rather than becoming dependent on external sources. Here again democratic principles have been brought into practice by delegating decision making power to the women themselves.

Understanding Mindsets and What it Means to Preventing Violence

Mindsets are beliefs – about oneself about others and about society in general. Individuals with fixed mindsets hold a belief that their own qualities, strengths and weaknesses are unchangeable. They draw their experiences from the confines of their socialization; do not develop an orientation to growth. A growth mind set is one in which people believe that change is possible, that qualities and talent alone do not take you all the way, that effort and openness are significant in creating resilience and breaking old patterns of thought.

When you believe that you have a 'given', you become concerned about how adequate it is. Your circumference is drawn up and the individual decides they have to learn to function within it. Conformity and adjustment to the 'given' becomes the aim. Society tells you its 'safe'. For example, for women to give up freedom and independence is in exchange for the 'protection' that male figures will provide, that patriarchy as a system will provide.

On the other hand a growth mindset sees the given as only a starting point which can be furthered and evolved. It sees that without pushing oneself to take up challenges there cannot be change. Why do people differ in this? Is it true that some people, some families, some societies or some cultures are inherently prone to having a fixed mind set whereas others tend to be growth mind set oriented? The question itself points to a fixed mind set oriented thinking. For, to ask this question would mean that either the, potential to change & grow is a 'given' or it is just not there.

This thinking has been challenged as far back as Alfred Binet in the nineteenth century when he said that education and practice could bring about fundamental changes in intelligence. "With practice, training and above all, method, we manage to increase our attention, our memory, our judgment, and literally to become more intelligent than we were before". Binet was referring to children and discussing cognitive intelligence.

However, the same understanding can be well extended to social intelligence. Educationists have long since learnt that people have more capacity for lifelong learning and resilience than has been accepted so far. The BELL Research referred to earlier corroborate this view. Individuals and societies, may start with their unique 'given' but it is clear that experience, training and personal and collective efforts take

them the long way. It is not just a fixed prior 'given' but purposeful engagement that decides how successful individuals or societies can be (R Sternberg).

In addressing mindset change to deal with violence against women we have several 'given' – individuals and society which accepts patriarchal values, laws which may have progressive thinking but are implemented through individuals and structures which are regressive and non-responsive, specifically we have girls and women who have been systematically denied access to health services and educational facilities and there prevails lack of political will to take on forces which benefit from keeping girls and women subjugated. If as a society we accept that working on violence against women will have to be worked out within the perimeters of these fixed mindsets, our work will end up evaluating how we can cope, given that these will continue to prevail. The view that we adopt for ourselves will profoundly influence the strategies we draw up. We will be constantly caught up in an effort to demonstrate that within the givens, will we succeed or fail?

On the other hand, the belief that we can go ahead that the challenges discussed above are but a point to start from, creates a passion for learning, for purposeful engagement, for stretching oneself, sticking it out when all is not going well, this will allow for individuals and societies to thrive during some of the most difficult and challenging times.

Integrating Education and Lifelong Learning in the Work to Prevent Violence against Women

Across countries in South Asia, governments and civil society have worked on strategies to deal with the bitter reality of violence and women. International support has also been forthcoming. There is evidence to show that very few have taken up a stance of developing an attitude of zero tolerance towards violence in any form that it may be. Society still has a long way to go to come out openly in support of the woman who complains whether it is in the case of domestic violence or sexual harassment the workplace. Survivors in both cases continue to weigh the fear of stigma and embarrassment of so called 'washing dirty linen in public'. School and College curriculum continue to be shy of including sexual abuse and sensitizing children to 'good' and 'bad' touch. There is a marked resistance in making children aware of possible abuse and to encourage them to speak out against any form of abuse specially incest. While there is some progress in involving boys and men to sensitize them towards violence, there is yet a long way to go in getting data on the attitudes, perception and behavior of men and boys towards various forms of violence against their mothers, sisters, wives and girlfriends.

A community based Lifelong Learning approach intrinsically recognizes that social and cultural contexts shape learning. Learning itself is fluid and diverse and can be changed by the people who engage in it. It can take from the strengths of the learners by understanding that life events shape our learning. It acknowledges the

power dimensions and attitudes and values which influence learning. This learning values a shared understanding of the learner's previous experiences and achievements, both in their experiences of learning and also of making changes in their lives. Despite destruction of vast scale caused by war and ethnic conflicts the Afghanistan Government adopted measures focusing on education considering it as a major tool for reconstruction and rebuilding. The National review report published as part of Beijing +20 assessment it has been reported that new efforts were initiated on the premise of the *Hadith* (saying of the Prophet) that Islam does not consider sex of the person as a barrier to education and made it obligatory that quest for education should be the pursuit of both men and women and is certainly decent and productive for women. The education programmes were focused on women who were deprived of it for several decades by using the socio-cultural and religious platform creatively. There has been a considerable increase in female students' enrolment in vocational education, school education, higher education, Madrasas, and other learning programmes. In the literacy courses conducted in the past 12 years around 50% are women. Gender workshops were held in the last two years in the Ministries and in higher education centres to promote the value of gender equality. War had ravaged the country but amidst destruction there was hope reignited through the international and local community's partnership and engagement (Afghanistan National Review, Beijing +20 Platform for Action, 2014).

It is significant for all awareness and preventive programmes to recognize that to change mindsets you first need to sow the idea in the mind of the individual or society that the mindset needs changing. Awareness programmes and educational programmes will need to realize that those who do not wish to change their mindset (attitudes & beliefs) are either not aware that they need to change, or are in denial (which means they know, but are fearful to make the changes) and finally there are those people who know they have to change and do work towards it. In the conflict ridden areas of Pakistan women have used their agency to confront violent conflicts by initiating creative survival strategies for their families and communities. The Muttahida Movement initiated by women's forum to break women's isolation mobilized the women of the area. Displacement created avenues for women's empowerment and autonomy in the conflict areas of Pakistan. The male organizers of relief and rehabilitation work failed to recognize and appreciate women's efforts and their potential to negotiate for peace. The men did not consider the women's potential to reverse conflicts and foster peace in the region by accommodating them on the negotiation table as war was always thought to be a 'man' thing (Rite Manchanda, 2002-2003).

Finally, one of the worst reasons for why individuals do not change is when the message goes out that the issue of violence against women most often meets with indifference and no justice is meted out to the one who has suffered. Indeed, her dignity is violated and her behavior is questioned. Swift justice to the survivor and punishment to the perpetrator will go a long way in changing mind sets. Despite the

laws political will to implement remains weak, hence it is civil society through awareness programmes and education who will have to advocate strongly for it.

A Lifelong Learning approach starting through early school years, going throughout formal education and extending into the workplace needs to be put in place. Schools, Colleges and workplaces needs to co-ordinate with all those local organizations working on the issues of gender equality & prevention of violence. NFHS-3 reports that around 35% of women in the age 15-49 years have experienced physical or sexual violence. This made them vulnerable to infections, unwanted and high risk pregnancies, low birth weight, and HIV and AIDs. The skewed sex ratio as evidenced by the 2001 census revealed the horrors of selective abortion of female foetus owing to male preference. This resulted in recognition of violence against women as a public health issue. Several programmes were implemented by the Government, Non-governmental and Inter governmental organizations to address the consequences of domestic violence. The Integrated Child Development Services Scheme has tasked its frontline workers, the Anganwadi workers to identify women who are victims of domestic violence and report to the supervisors who inturn initiated legal procedures and assistance. In its Kishori Bal Yojana the ICDS included the adolescents in its programming addressing their nutritional and protection issues. In the life cycle approach mal nutrition could be addressed at the young age of the child right from 3 to 6 years of age through supplementary food and education which include gender equality and according value to girls in the informal curriculum. The Anganwadi workers (AWWs) are being made aware about gender equality in their Job training course, as they are viewed as change agents and not merely pre-school teachers (ICDS, 2012)

Institute for Reproductive Health (IRH) Georgetown University supported family planning programmes in Northern parts of India and has gathered emerging evidences of male engagement in family planning through gender-transformative approach. Men traditionally are encouraged to practice risky behaviours such as have multiple partners and refrain from seeking health services as the reverse behaviour is seen as 'weakness' on his part because of his socialization in the family and in the community. This gender transformative approach helped fostering gender equitable attitudes not just in family planning choices but beyond as well. It encouraged spousal communication and empowered women's agency to negotiate and be equal to her partner (IRH, 2014). The point here is that in community based awareness and training violence need not be tackled in isolation but the society can be made aware by using health as an entry point.

An equally significant part of this approach needs to be towards developing non-formal programmes for children who are out of school, young workers whose formal education is incomplete and adult learners in the community who could be a part of literacy classes, self-help groups, women's associations etc.

A peer training approach at programmes for those who have survived violence and can become mentors and guides to those who are still caught in the grip of

violence can also be integral to a life-long learning approach. This will aid in creating more resilient and supportive communities.

Since the community based lifelong approach acknowledges that learners can shape their learning it becomes meaningful in educational programmes with survivors and perpetrators alike, with the regular learner and the 'influencer' (media, politicians, police, judiciary, bureaucracy) alike. The Lifelong Learning approach provides learners with a feeling of being responsible for and retaining ownership of the mindset changes being sought.

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Lifelong Learning for Doctors: Continuing Medical Education (CME)

Sunil Sharma
Nishat Farooq
Nishat Farooq

The pace of accumulation of new knowledge in the twenty first century has been exponential. It is extremely important to find ways to share this newly acquired knowledge so that maximum people can benefit from it. In the field of medicine also, new concepts and medicines are discovered for treatment of patients and every year thousands of research papers are published. Therefore, there is a need to transfer this knowledge to the all healthcare professionals. For this purpose, Continuing Medical Education (CMEs) are organized from time to time. CMEs are designed to offer updates on the latest medical practices, guidelines, and research, and also highlights dealing with any current local community health concerns. CMEs are based on a learner-centered, continuous improvement model. The CMEs are tailored to the needs of healthcare professionals, be it a practicing physician, an administrator, a researcher, top executives or in any other related field. Some CMEs are self-directed, practice-based education that supports physicians' commitment to lifelong learning.

The practicing doctors are very busy examining patients the entire day. Their earnings are, most of the time, directly proportional to the number of patients examined. Therefore, any other activity means cutting their income. Hence it is quite obvious that any other activity has to be of substantial benefit to the doctors to invest in. Most of the doctors have to do multiple tasks and are very busy with examining patients, teaching students, fulfilling other administrative duties or performing surgeries. They even find it difficult to balance work and family life. It is always a challenge for the doctors to find time to read latest advances in the field of medicine .

However, keeping patient benefit in view, the Medical Council of India has made it mandatory for the doctors to acquire the latest advances in medicine so that they can treat the patients better, by making it compulsory to attend CME for at-least 6 hours per year and 30 hours in 5 years. Similar orders have been issued by Nursing and allied health councils. Many of the CMEs are scheduled on Sundays and investing just 1 hour on 6 Sundays, out of 52 Sundays in a year, is not asking for too much. To make it easier for the doctors, several different types of CMEs are held, so that the

The Delhi Medical Council

The Delhi Medical Council recognises BMJ Learning as being accredited for the purpose of continuing medical education (CME)/continuous professional development (CPD). Doctors can thus claim continuous professional development credits for their activity in BMJ Learning.



doctors can do it at their own convenience, without affecting their work or income.

Providers of CMEs

CMEs can be conducted by any interested party like, Physician membership organizations, Publishing companies, educational companies, Medical colleges, Hospitals, Healthcare delivery system, Government organizations and others. Commonly, it is organized by the management at the workplace or a professional body in a particular field of medicine. In India most common is CME done by associations/society of professional medical body or by State Medical Association, accredited by Medical Council of India or State Medical Council of respective states. The Delhi Medical Council has recognized BMJ learning as provider of online CME. Doctors can go to the website of BMJ and read the topic of their interest and take the examination online to qualify for CME credit hours.

Models of CME

CME is offered through a wide range of formats and structures. It could be traditional lectures and grand rounds, one-on-one training, performance-improvement projects, online simulation, learning from teaching, regular courses, team based learning, and numerous other approaches.

Recurring activities is planned to have multiple sessions that occur on an ongoing basis (offered weekly, monthly, or at regular intervals). It is primarily planned by the workplace management for organization's professional staff. Examples of such activities are Grand Rounds, Journal clubs, clinicopathological presentations, case presentations and Morbidity & Mortality meetings.

In **grand rounds**, the whole group of doctors of a department visit the patients collectively and discuss each patient or it can be done in a conference room and discuss few particular patients. In journal clubs, one doctor presents an article from latest medical journal and all doctors discuss it thoroughly. In **clinicopathological** presentations a case is discussed amongst clinicians and laboratory doctors. Strategies to diagnose a difficult case is discussed, where the investigations done so far has not given a clear cut diagnosis. Clinicians and laboratory doctors learn from each other about recent advances in their respective fields and use it to come to a clear cut diagnosis for a particular patient. In **case presentation**, an interesting case or a difficult to diagnose case is discussed and collective knowledge of senior doctors and young students are utilized for diagnosis or management of the case. In **mortality and morbidity meetings** all patients who have died are discussed and any extra actions that could have saved the patient are discussed for future management. Similarly, in morbidity meetings, how many patients of a particular disease are admitted in the hospital is discussed, so that the management is better prepared to handle an outbreak etc.

Nonrecurring activities include Annual meetings, conferences, workshops, seminars, symposium, panel discussions, simulations, enduring materials and Performance Improvement Activities. Most common way to hold CME is through **annual meetings, conferences and seminars**. Doctors gather at a particular place at pre-advertised dates and time and discuss several topics or one particular topic. The latest knowledge and recent publications in that particular topic is shared. This sharing of information could also be in the form of **symposium, panel discussion or workshop**.

The **enduring materials** are lasting material such as printed, recorded, or computer-presented CME activity that may be used, time and again, at various locations. Enduring materials must be followed by an assessment that measures how well the learner achieves the educational objectives of the activity.

In **performance improvement activity**, a single doctor or a group of doctors evaluate their performance (e.g. bypass surgery) with the standard results of others and if they need improvement they take help of professional experts of that field and implement the suggestions to improve their results (described in details later in the article).

In **Webcast** a particular time and date is advertised so that people can join at the specified time and a presenter gives the lecture online. After the lecture the people can interact with the speaker by emailing/chat their questions/queries. In **podcast** a lecture is available online for an extended period of time and people can access it freely at any time or they can register for the podcast of their choice and topics of their interest from a particular website and the podcasts are automatically downloaded on their computer or ipads. In **Online journal based CME**, a particular topic is published online and people can go the website and read the article and then answer questions online and if they pass the online test they get certificate for successfully completing the CME credits (usually 1 credit hour). In **Manuscript review** a particular person is asked by the publisher of the manuscript to read it and critique it for any improvements or any flaws. For this effort the reviewer is eligible to claim CME credits (usually 1 credit hour). In **Test item writing** the publisher of the test asks a doctor to frame a test on a particular subject. The doctor can claim CME credits for the development of the test. In **Committee review** a committee is formed to develop some guidelines on latest topic. The person who reviews the guidelines and writes it down for publication can claim CME credits for the effort. Any invited doctor member who participates in the whole committee deliberations can also claim CME credits. In **Internet searching** and learning any person can search the internet for a particular topic and read the latest articles published online. He can then include it as a CME activity but it is mostly not considered as valid by many professional bodies.

In '**Learning from teaching**' there are several different ways one could claim

CME credits. One example is if at a workshop particular equipment is to be used eg a new ultrasound machine, then the doctor/s who will demonstrate it, go through the training of using the new ultrasound machine before the workshop. They can claim CME credits for this training. In another example a teaching institution hires new faculty to teach students. The doctor who is responsible for the training of new faculty prepares the material for training the trainer. The time spent for preparing the course material can be claimed for CME credits. Similarly if the current teaching material needs updation with latest available knowledge, eg if use of MRI or 3D imaging and video is to be integrated in the new material, the time spent on learning and updating the teaching material can be claimed as CME credits.

CME credits can also be claimed for any **article written** to be published in a scientific peer reviewed journal or any **Poster** prepared for presentation in a conference. CME credits can also be claimed for any **advanced degree** that one has qualified for or a **residency training** one completes in a hospital or a test one takes for **recertification** in the respective medical field.

Pros and Cons of different types of CMEs

Annual meeting

To attend annual meetings, physical presence is needed at the venue of the meeting. This physical presence has to be at a specified date and time and place. The expenses to attend the meeting may cost more as hotel stay maybe involved for usually 2 - 3 days. It is very good for networking and discussing several different topics, as there are many experts present at the same place at the same time.

Conference

To attend conferences, physical presence is needed at the venue of the meeting. This physical presence has to be at a specified date and time and place. The expenses to attend the meeting may cost more as hotel stay maybe involved for usually 1 - 2 days. It is very good for networking and discussing several different topics, as there are many experts present at the same place at the same time.

Seminar

To attend seminars, physical presence is needed at the venue of the meeting. This physical presence has to be at a specified date and time and place. The expenses to attend the meeting may cost less as hotel stay is not involved because it is usually for 1 day only. It is very good for networking and discussing usually one particular topic in depth. There are many experts present at the same place at the same time.

Symposium

To attend symposium, physical presence is needed at the venue of the meeting. This physical presence has to be at a specified date and time and place. The expenses to attend the meeting may cost less as hotel stay is not involved because it is usually for 1 day only or for just few hours. It is good for networking and discussing usually one particular topic in depth. There are many experts present at the same place at the same time. There is very exhaustive information available but usually one can only listen to the experts having discussion between them.

Workshop

To attend workshops, physical presence is needed at the venue of the meeting. This physical presence has to be at a specified date and time and place. There are few experts present at the same place at the same time. The cost may be more as training material and equipment is involved along with hotel stay. It is very good for learning newer techniques, very powerful tool for enhancing career. The drawback is that one can not revisit or refer back to the techniques.

Journal club

To attend journal clubs, physical presence is needed at the venue of the meeting. This physical presence has to be at a specified date and time and place. The expenses to attend the meeting may cost less as hotel stay is not involved because it is usually for 1 day only. It is very good for discussing usually one particular topic in depth. There are few experts present at the same place at the same time. It is however, confined to very specific single topic usually but is very good for learning critical thinking, understanding figures, tables and statistics. Drawback is that one usually cannot revisit or refer back.

Grand round

To attend grand round, physical presence is needed at the site of the meeting. This physical presence has to be at a specified date and time and place. The expenses to attend the meeting do not cost much. It is very good to learn bedside skills. One also learns how to prepare for presentation for examination. It improves critical thinking and differential diagnoses skills. Drawback is that one usually cannot revisit or refer back.

Pathology / tumor board

To attend pathology board, physical presence is needed at the site of the meeting. This physical presence has to be at a specified date and time and place. The expenses to attend the meeting do not cost much. One learns holistic approach for

diagnosis. One is exposed to newer approaches and techniques involved in specific areas. Drawback is that one usually cannot revisit or refer back.

Morbidity and mortality meet

To attend morbidity and mortality meet, physical presence is needed at the site of the meeting. This physical presence has to be at a specified date and time and place. The expenses to attend the meeting are not much. One can learn from mistakes and retrospective findings for prospective thinking, a positive feedback of performance. Drawback is that one usually cannot revisit or refer back.

Webcast

To attend webcast, physical presence is needed but not at the site. This physical presence can be at a remote place, on internet. The expenses to attend the meeting are not cost much. It is usually one sided teaching, as it is normally a lecture delivered on internet. Though one can learn from prominent subject expert, it is of very short period, one hour usually. One can usually revisit or refer back to the recorded talk on internet.

Podcast, online CME, recorded material/class

To attend podcast, physical presence is needed but not at the site. This physical presence can be at a remote place, on internet. The expenses to attend the meeting are not much. It is usually one sided teaching, as it is normally a lecture delivered on internet. Though one can learn from prominent subject expert, it is of very short period, one hour usually. One can usually revisit or refer back to the recorded talk on internet at ones' own convenience.

Online journal based CME

To attend online journal based CME, physical presence is needed but not at the site. This physical presence can be at a remote place, on internet. The expenses to attend the meeting are not much. It is usually one sided teaching, as it is normally an article posted on internet. One can take their own time to read it and answer questions after reading the article. If you pass the exam then you immediately get the certificate of CME completion and credits earned.

Manuscript review

One can take own time and review the manuscript at home also. There are no expenses to be incurred; in fact one gets paid by the publisher for reading the manuscripts. It can be very time consuming, needs very thorough knowledge of a specific topic, critical thinking and latest up-to-date knowledge on the subject.

Test item writing

One can take own time and write the test material at home also. There are no expenses to be incurred; in fact one gets paid by the board for writing the test questions. It can be very time consuming, needs very thorough knowledge of a specific topic, critical thinking and latest up-to-date knowledge on the subject.

Committee review

To attend committee review, physical presence is needed at the venue of the meeting. This physical presence has to be at a specified date and time and place. The expenses to attend the meeting may not be much. It is very good for networking and discussing the specific topic, as there are many experts present at the same place at the same time. But it could be a passive participation, as committee members may not interact with observers. It is good for learning the latest updates in the subject.

Performance enhancement

It is very good for improving current practice and solving specific identified problem, learning through group activity and from subject experts.

Internet searching and learning

It is the most common way people learn these days. It is very informal, can be done at own time and place. But the biggest problem is that the material may not be scientific or factually correct.

Learning from teaching

One can take own time and prepare the teaching material at home also. There are no expenses to be incurred; in fact one may even get paid by the board for developing the teaching material. It can be very time consuming, needs very thorough knowledge of a specific topic, critical thinking and latest up-to-date knowledge on the subject.

Articles published

It is very beneficial to the individual in career. It is time consuming and needs access to latest journals for review of literature on the topic of the article to be published. One can take own time and write the article at home also. There are no expenses to be incurred.

Posters prepared and presented

One can take own time and write the poster material at home also. There are no expenses to be incurred. It can be very time consuming, needs very thorough knowledge of a specific topic, critical thinking and latest up-to-date knowledge on the subject. Physical presence is needed at a specified date and time and place for presenting the poster at annual meeting or conference. One gets to learn presentation skills.

Re-certification exam, Advanced degree and Residency programme

One goes through regular learning process for taking the examination or doing the training for career advancement. In addition they can claim CME credit after passing the examination.

Planning an event and applying for accreditation

To understand the process of planning a CME event an example of performance improvement activity is given below:

A team of doctors believe that their results of by-pass surgery are not as good as another centre. They can improve their results through an evidence-based, three-part programme and they are:

1. Assess their current practice and learn about specific performance measures,
2. Apply the new measures over a useful interval,
3. At the end, re-evaluate their performance.

Stage 1: Assess Current Practice

The helping agency which could be a leading cardiac surgeon or the cardiac surgery society of the area. The society then uses detailed data collection methods to capture all relevant data of the patients on whom bypass surgery has been performed in the last several months. Also data is collected on patient selection for surgery, patient preparation before admission, at the time of admission, stay in the hospital before actual day of surgery, all risk factors of the patients and how well these were controlled or corrected before surgery. Complete patient's past medical or family history is also collected. The bypass procedure, the competency and role of anaesthetists and nurses during the surgery, any blood loss during the surgery, the sterility of the equipment and instruments used during the surgery and all the environment factors, including temperature, humidity and operation theatre air quality during the surgery is analyzed in details. Data is also collected on the post-operative phase of the bypass surgery. The details of the care in recovery room and nursing

care of the patient's respiratory system; intravenous lines, cardiac and vital signs monitoring; early extubation and removing invasive lines, optimum use of prophylactic antibiotics and cardiac physiotherapy are all evaluated.

Assessment is done using appropriate performance measures such as chart reviews and doctors and nurses notes. This stage generally gives a clue on what the problem could be.

Stage 2: Implement the Intervention

This leads to organizing some type of CME, and applying the corrective techniques or processes as an intervention in clinical practice. The surgeons learn the modified interventions and practice it for a defined period of time and then re-evaluate the results depending upon a defined number of patients of bypass surgery over a defined period of time, to produce a valid assessment. Use suitable tracking tools such as flow sheets to measure the intervention's success.

Stage 3: Evaluate the Intervention

Using data analysis, discussion and techniques such as reflective writing, compare the results of implementing the intervention to the initial results of bypass surgery. Summarize the changes in practice, process, and patient outcomes, and consider the implications of these changes.

All these efforts are a great learning experience of both, the instructor and the learner surgeons.

A good example of planning a CME activity is published on the ACCME website and is as given here:

Planning Regularly Scheduled Series

Planning process

1. Submission of Initial Paperwork
2. Planning before Each Session
3. Planning at Each Session
4. After Each Session (within 30 Days)
5. Planning submission of Annual Paperwork

Step 1: Submit Initial Paperwork

Plan to submit Document at least six months prior to CME activity date.

Step 2: Plan before Each Session

Prepare notices or announcements that include:

The program's educational objectives

Accreditation statement (which is provided by the CME Office)

Credit statement (which is provided by the CME Office)

Disclosure summary, which must include details of commercial support received.

Step 3: At Each Session

Provide attendance sheets for attendees to sign in with their official ID numbers.

It is mandatory to inform the audience what the presenter has stated on his or her disclosure form. The program director, or a member from the professional staff or the speaker himself, should verify one of the following for the attendees:

That all financial relationships of the speakers, with companies are identified on the disclosure form, or categorically stating that the speaker has no relationships with any company that is discussed during the educational session, or if the speaker has refused to disclose relevant financial relationships and if so then CME will not be available for that speaker's presentation. This declaration is mandatory for all CME activities, including those without commercial support and even if the speakers are "internal" presenters.

Step 4: After Each Session (within 30 Days)

It is required that at the end of the CME the following must be sent to CME office:

Attendance sheets with participants' CME ID numbers

The advertisement of the CME sent to all the stakeholders

Completed Disclosure Forms having the Programme Director's signature and a statement indicating that the audience was informed of the financial relationship of the speakers with any company or absence of it.

If the speaker had conflicts of interest, then a statement must be added showing how the CME committee resolved the situation.

Also send a signed Letter of Agreement with the supporting company that has invested funding.

All the handouts and any reference to the literature that was distributed.

Provide the participants with the most accurate accounting of their CME credits, by

submitting the paperwork in time so as to ensure proper credit is awarded and the participants have enough time to submit it to get credits. Many associations rely on CME transcripts that are submitted to renew the privileges and to maintain board certification of the candidates.

Step 5: Submit Annual Paperwork

Submit the following annual paperwork to ACCME otherwise ACCME may debar you from providing credits:

Year End Questionnaire and Documentation Form

Curriculum Development for Regularly Scheduled Series

Disclosure Forms for the program director

The forms for speakers must be submitted regularly throughout the year

All the content forms for the program director, validated and all planners

Summary of ACCME Requirements for Commercial Support which is duly acknowledged and signed by the program director and program coordinator

Annual Budget Report.

If there is zero budget, even then submit this form stating so.

Summary of results for the Year End Evaluation Form should be included.

The Evaluation Summary should include:

Participants' assessment of the program's educational, clinical, or professional impact.

Suggestions from participants.

Independence of content taught and Rating of its scientific validity.

Planning Non-Recurring Activities

Non-recurring CME activities include conferences, workshops, seminars, panel discussions, simulations and others as described earlier. Most of the paper work is similar to recurring activities and is given below:

Submit Initial Paperwork

Planning and Verification

Announcements to be made are drafted and sent to all stakeholders at Least Four Weeks before the Programme and then again at Two Weeks before the Programme.

Submit the course material before the Educational Activity Begins; especially for enduring material.

For conferences, it should be provided at the Event.

Send all paperwork within 30 Days after the Activity.

Need for Accreditation and conclusion

Accreditation assures the participants that CME is designed to be relevant, effective, and independent of vested interests. In the United States of America, the CME provider is part of a community of approximately 2,000 accredited organizations that offer more than 138,000 educational activities each year, addressing national, regional, and community-based health care improvement priorities. Accreditation Council for CME (ACCME) is the apex national body that accredits the CMEs all over the country. The council ensures that all CME programs within the ACCME system are held to the same high standards. The accreditation statement means that the CME provider has met those standards. Another national level accreditation body in the USA is the American Medical Association (AMA). Most of the doctors are member of AMA and they do their CME training at places approved by AMA.

With this background it may be relevant that in India the training programs undertaken in the field of adult education should also be accredited by a national body. This will ensure that the trainings are of uniform standard in all parts of the country. The material to be used in the training gets approval from a national body and only then it is used. Maybe it is largely true that the trainings held under the Saakshar Bharat program or through Directorate of Adult Education (DAE) are of uniform standard but it may not be true for other trainings that are held in remote areas. The accreditation process could be taken up by a national body or any other similar apex organization. The Indian Adult Education Association could also look into taking up this important work to improve the standard of teaching/training in the field of adult education in India.

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Recognition of Prior Learning: Current Status, Issues and Challenges

Asha Patil

Lifelong learning (LLL) has emerged as a significant strand of policy around the globe. The concept of LLL is wide, which includes integration of all types of learning i.e., informal, non-formal and formal. It emphasises upon integration of learning and living. It promotes education on a holistic basis. In today's globalized world, it is necessary for all individuals to acquire and adapt competencies (Knowledge, skills and attitudes) through all forms of learning. This will help them to cope with the various challenges created by science, technology and otherwise.

Learning can happen anywhere and anytime. However, very little of this non-formal and informal learning gets recognized, assessed and certified. Society and the global market still emphasise and recognize formal education. Around 93% of workers in India are working in informal sector. Most of these workers possess some type/s of skills and knowledge, which is not recognized by the formal sector. This hinders the economic growth and development of both- the individual and the nation. One of the challenges is how to recognise the learning that occurs outside the formal education system. Countries like Australia, Canada, South Africa and many others have developed their own system of Recognition of Prior Learning (RPL), whereas in India, very few efforts have been taken in this area.

At the Sixth International Conference on Adult Education (CONFINTEA VI) in Brazil (2009), the demand for Recognition, Validation and Accreditation (RVA) of all forms of learning with a focus on non-formal and informal learning outcomes was expressed through the Belem Framework of Action. India was also a part of it (UNESCO, UIL, 2012, Jin, 2015)

The XII Five Year plan mentions that by 2020 India will skill 500 million people. Of these, many belong to socially, economically or otherwise disadvantaged groups for whom embarking on any form of education or training may be a daunting step (Sims Chris, Shamash Joe and Freccero Piera, 2012).

India is one of the most populous countries, where most of her workforce is concentrated in agriculture sector, which is seasonal. There is tremendous scope for RPL. Till now, India does not have any exclusive and separate system for RPL. While designing strategies for RPL, one has to address following questions:

- How to expand the range of educational offerings beyond formal educational institutions?
- How to connect these non-formal offerings along with the recognition of previously acquired competencies to enhance further learning? This will help the learners to accumulate credits, which will smoothen their entry into the labour market.
- How to motivate workers/adults (paid, unpaid and voluntary) for RPL?
- How to meet the diverse learning needs?
- How to establish linkages between the formal curricula, non-formal and informal learning?
- How to determine the approaches for assessment, validation and certification?
- How to ensure the quality of assessment and avail funding?

Recognition of Prior Learning in India is crucial for the development of equitable society. If implemented systematically, this will also help to realize the market demands. RPL will improve the quality of life and consequently establish a just society.

In recent years, many countries such as Philippines, Thailand, Australia, Canada, and South Africa have started implementing RVA. Their experiences show that RVA helps in reducing poverty, creates jobs and employment opportunities, which has resulted in social inclusion

Concept of Recognition of Prior Learning

Adults have a treasure trove of variety of knowledge, which they have accumulated through their life and work experiences. RPL process will help them to demonstrate this informal learning, acquired outside the formal education settings and get recognition for it. RPL mainly focuses on knowledge, abilities and skills. Adults can use RPL assessments not only to get entry in formal education stream but also to get good jobs. There is not a universally accepted standard definition of RPL. However, in short, RPL can be called a method of assessment through which learner/adults can gain recognition for knowledge, understanding, skills and competencies that they already possess. RPL provides motivation for further study. It also gives 'second chance' to adults as the learning processes are more flexible and can be tailored to suit their needs.

RPL has two aspects of assessment –knowledge based (what and why), and competence based (how). Knowledge assessment is relatively easy to manage objectively. Competence assessment requires external verification. This requires quality assurance to ensure standardization of internal assessment. For this, one needs to establish external verification centres in various parts of country. This could be done at district and block levels, with well equipped infrastructure and trained staff.

Need for Recognition of Prior Learning in India

In India, majority of the workforce working in informal sector has not received any formal training. Many of them are school drop outs at various stages and are without any formal qualifications. Can we call them 'unskilled'? The answer is 'No' in many cases. They may lack qualifications (NSDC, 2015), but not skills. As they do not have certificates so despite being fully skilled, they are employed at low wages. Most often they are exploited by employers. Their productivity is ignored in national GDP.

One of the major reasons for poor skilled workforce in India is a dearth of formal vocational educational framework and lack of industry-ready skills. There are a large number of people, who are illiterate and/or semi-literate, but have craftsmanship skills. For example weavers of Varanasi (Uttar Pradesh) or Kancheepuram (Tamil Nadu), gold and jewellery workers of Jaipur (Rajasthan) etc. They do not have formal certificates of training, but have been working for a long time. They need to be certified for their expertise. RPL will help individuals, who have gained knowledge informally—such as through life, work and voluntary activities, without any formal training. RPL will bring them formally to the skilling list (Sasi, 2015). In other words, RPL will give recognition to knowledge and skills gained through:

- outside formal learning situation
- informal learning and training in the workplace, the community and/or voluntary sector
- continuing professional development activities
- independent learning. (Ministry of Finance, GOI, 2013)

Thus, RPL will give recognition to experiential learning, self-directed learning and other forms of informal learning.

Formal education system is rigid. It does not have facilities to assess and recognize skills acquired outside its system. Millions of people have inherited skills from their parents (ancestors) or acquired while working. It is high time that these skills should be recognized. Society and industry must accept diverse forms of learning. This will help to utilize the existing human resources at its maximum. RPL will help the employers to understand these skilled employees and absorb them in their endeavours. If required they should train them further accordingly. This will also help to connect informal economy with formal economy. It will enhance employability and labour mobility. RPL is a way to overcome skills shortages in micro-enterprises, thus providing the supply as per demand. Thus, RPL will focus on skilful people, who are excluded from mainstream. This will ensure equity and inclusiveness. In addition to promote further learning, RPL will enable learners to become an active member of labour market. If implemented properly, RPL will help to create qualified, certified, multi-skilled workforce. This would attract investors to the micro-enterprise sector (Singh, 2013). This will ultimately lead towards the creation of a learning society.

Implementation

Millions of workers live in rural parts of the country. Hence, it is necessary to open RPL centres at village levels. These centres can be opened at local level institutions such as Panchayat Raj Institutions (local self Government), schools and/or college premises, campuses of major firms/universities/social organizations/NGOs, etc. These institutions must be well equipped with information on RPL. They should guide and counsel learners (especially from unorganized sector, who are illiterate, semi-literate or school dropouts) on RPL and its importance. Venue of these centres should be easily accessible to learners, irrespective of the geographic conditions. This will motivate people to join RPL centres.

Quality assurance is an important aspect of RPL. One needs to develop various criteria and strategies for assessing prior learning, which is the biggest challenge. While developing strategies for assessment, one can develop summative assessment tools as well as formative assessment tools. Summative assessment tools will exclusively focus on learning outcomes, which will be useful for validation and recognition. Formative assessment will include documentation of learning process at various stages and give feedback.

Assessment can be a costly phenomenon. Employers and workers should be involved in setting standards and the rules of evidence. There is also a need to train people, who will be involved in assessing learners. They should have thorough knowledge of competence based assessment.

Essential Elements of Recognition of Prior Learning Process

Technology is changing very fast, so are the needs of society. One needs to learn many things to make comfortable living in this globalized competitive world. LLL provides this opportunity to all learners. However, to implement RPL, one needs to focus on following elements:

- **Learner centric**- Learners will come from different backgrounds, working in a variety of environments. Their evidences will differ. Hence, the RPL assessment process should be learner centric. It should focus on learner' needs. The centres, where RPL is going to be conducted, should be accessible to learners. The process should help them to demonstrate their prior learning and experiences. The process should be open to accept a variety of evidences to reflect the diversity of experiences to demonstrate. Active participation of learner in assessment process should be ensured.
- **Clear instructions**- RPL should provide clear cut guidelines about terms and conditions to join this system.
- **Transparency**- Learners will have various learning evidences depending on the type of skill. At the initial stage itself, learners should be informed clearly about how they will be evaluated. Assessment procedure should be

transparent, rigorous and should ensure quality. It should also provide a scope for learner to make an appeal or ask questions for clarification, if not satisfied with the assessment.

- **Learning evidences-** At the initial stage, learners should be informed about various methods in which they can present their evidences of learning. If required, they should be helped to demonstrate their skills / learning through the best possible method. The evidences may include certificates/recommendation letters from earlier employer/s, references, a sample of a product which they have prepared (e.g. a chair prepared by a carpenter), copies/photographs/videos of work done by learners, skills logbook, port folios, demonstrations, oral evidence from a co-worker, simulation and on the spot test, interview, etc.
- **Flexibility-** RPL centres should be established at grassroots level, taking into consideration the local conditions/settings. It should remain open as per the convenient timings of learners.

One has to keep in mind that the certificates/credits given through RPL system / should carry the same value as that of the certificates given by formal system. Hence, while assessing the evidences of skills at the time of the learners' entry in RPL; one needs to be more cautious and transparent. This will help to maintain the quality of skills.

To avoid any controversies, one can organise an introductory session for learners at each RPL centre. Learners, who want to get certificates for their skills, can attend this session. The session should be interactive. It should give information on the whole process of RPL-including various types of evidences learners can submit, process of assessment, duration, etc. After this, a consultative meeting, with those learners who want to enrol, should be organized. These steps will help the learners to clarify doubts, if any.

Advantages

Recognition of Prior Learning will boost the self-esteem of learners. It will also help to reduce duplication of learning, as learners will be assessed on their current skills and knowledge and be certified. This will reduce the cost of training. It will be useful for learners to pursue further learning, if they wish. It will help learners to identify areas of competence and areas required for further study/learning.

Some experiments in India

Around 16 central ministries offer various skills development programmes. The duration varies from 3 months to two years. Private sectors such as- Infosys have their own in-house training programmes for their new recruits. TATA groups have their own system to train the newly appointed people as per their requirements. These

facilities are available for those, who have studied through formal education system. There are no such facilities available for workers in informal sector.

In September 2012, Ministry of Human Resource Development, Government of India has initiated the process of RPL. As a part of this, National Vocational Education and Qualification Framework (NVEQF) have been prepared. Through this, India seeks to provide quality-assured learning pathways with standards comparable to any international qualification framework. This framework forms the basis of India's approach to lifelong learning and continuous up-grading of skills and knowledge. It also proposed to develop vocational counselling and career guidance to cater to present and future needs, information on employment trends and training opportunities be continually made available to motivate workers and enable them to acquire and continually upgrade their skills and knowledge (Singh, 2013). The NVEQF supports the attainment of qualifications through diverse routes. RPL Manual prepared by National Institute of Open Schooling (NIOS) provides a framework to assess the competencies and skills acquired via informal learning. It awards the certificates as per the level of competency attained. NVEQF also defines mapping between the levels acquired via RPL and through formal education. This additionally provides the student an option to switch between the two forms of education (ILO Country Office for India, 2014). National Skills Qualifications Framework (NSQF) was designed to enable the learner to acquire skills required by the National Occupational Standards (NOS) to be able to perform a particular job and organised them as a series of qualifications across 10 levels-from level 1 to 10. But, till date hardly any industry or assessment body has adopted the framework. The Modular Employable Skills (MES) scheme, under the Ministry of Labour and Employment, has a component of RPL, wherein direct testing and assessment of skills may be done. Ministry of Tourism also runs the skills Testing and Certification Programme. However, efforts for RPL are limited (Ministry of Finance, Dept. of Economic Affairs, 2013).

Ministry of Labour & Employment and Ministry of Skill Development have jointly started a scheme of RPL for construction workers to certify the skills acquired by workers through traditional, non-formal learning channels. It was started on an experimental basis in five states namely Haryana, Telangana, Odisha, Chhattisgarh and Delhi.

The scheme has involved industry to prepare a checklist of competencies for various trades to standardise skills levels. It has empanelled independent trainers for the skills assessment and training. Construction sites, which have more than 200 construction workers, are selected for imparting training. This scheme has a target to certify around 10 lakhs workers under RPL (Sesi, 2015).

Initiatives by LabourNet- it is a Bangaluru based social enterprise. It is an initiative of an NGO- MAYA (Movement for Alternatives and Youth Awareness). It aims to provide a one-stop platform for unorganized sector workers to obtain services, which are currently available and accessible by formal sector workers. It has introduced

RPL for workers in construction sector at a local level to improve their livelihood. An iterative process was therefore used to develop assessments. For assessment of workers' skills, it involves a team comprising industry experts, vocational experts, instructional design experts, content writers and assessment experts. They are contracted by LabourNet as and when necessary. This team prepares a question bank. Questions are organized in 'easy to difficult' order. After undergoing this test, learners are categorised as unskilled, semi skilled and skilled. Assessment is conducted on-site. Delivery of tests is outsourced to a survey team.

National Institute of Open Schooling (NIOS)

National Institute of Open Schooling has developed an assessment system and has researched to evolve a process of certification to offer recognition of prior learning to disadvantaged individuals who prematurely opted out of the formal education system because of any socio-economic reason. The process attempts to facilitate integration of formal and informal acquisition of skills and offers a career progression and skill up gradation path to such workforce (ILO Country Office for India, 2014).

Saakshar Bharat programme is launched by MHRD, GOI, in 2009 with a focus on female literacy. National Institute of Open Schooling (NIOS) conducts assessment and certification of the competency levels of neo-literates under the Saakshar Bharat Programme. It also provides opportunities beyond basic literacy to neo-literates. It has developed resource material including skill programmes for the A, B, C level, which is equivalent to Class 3rd, Class 5th, and Class 8th levels of formal schooling respectively.

Initiatives by Manipal City and Guilds- It is an India-UK joint venture. They conduct RPL for construction workers.

Roles of Universities

Recognition of Prior Learning has not taken a shape in India. Under extension as a third dimension, universities can involve themselves in RPL assessment. Followings are a few roles, where universities can involve themselves. This is not an exhaustive list, one can add to it:

- Starting RPL centre in its conducted and affiliated colleges, including one on its own campus
- Guiding and assisting learners in preparation of portfolios, especially for those learners, who have low literacy levels
- Mentoring learners to complete the RPL process
- Proactive role in networking with industries
- Providing vertical entries to learners, who have RPL certificates
- Organizing trainings to faculties involved in the assessment of learners

- Sharing infrastructure and academic support for successful implementation of RPL
- Monitoring of RPL centres
- Organizing awareness campaigns on RPL and spreading information to employers and job seekers
- Organizing job fairs at various industry campuses

Challenges

India is a multicultural, multilingual country with lots of diversity. Having one inclusive policy for assessment of prior learning is a major challenge. In the absence of a national qualifications framework, it is a challenge to implement RPL. Innovative approaches need to be developed. As stated earlier, one needs to have a framework against which individuals' skills can be assessed. The process has begun. It is a challenge for India to upskill millions of people already working in informal sector.

The lack of a qualifications framework or well-established regulatory environment; the low proportion of potential beneficiaries, who can be accessed through formal workplaces; and the low demand for vocational education (let alone RPL) are all factors that make the introduction of RPL as usually understood a difficult undertaking in this country (ILO country Office for India, 2014).

However, followings are major challenges in implementation of RPL:

- National coverage, to ensure service quality and credibility
- Establishing a large number of centres for assessment at village levels
- Reaching to the marginalized people, with minimum costs for learners
- Providing information on the whole process of RPL in simple, understandable local language. Translating technical terms, especially names of equipment, in local language is another challenge for assessors.
- Providing good/adequate infrastructure with trained and qualified staff at all RPL centres to assess and validate competences of learners. It should be affordable, easily accessible, reliable and efficient.
- Guiding learners to prepare evidences of their learning
- Convincing learners about benefits of RPL
- Overcome fear that qualifications/ credits/ certificates acquired through RPL are inferior in quality
- Providing skills trainings as per demands of learners, who are willing to upgrade their skills (keeping in mind the demands of local markets)
- Developing rigorous, transparent process for assessment of skills to ensure quality
- Learners may not be interested in rigorous assessment
- Motivation/time constraint from learner's point of view. Most of the learners from informal sector are working. Coming to RPL centres for assessment of skills will require time. By taking out time from their daily wages activities

- (loosing wages), how can one motivate learners to join the assessment tests? Learners may have other family obligations.
- Adult learners may not be in a position to submit supporting documents, which will confirm their skills acquired.
- Separate budget provision for establishment of full- fledged RPL centres at village levels
- Networking (cordial relationship) between employers/industries/enterprisers, RPL implementation agencies and learners. 'Learning while earning' policy should be encouraged.
- Minimal bureaucracy
- Creating demand for RPL by stakeholders
- Acceptance of RPL certificates by current rigid formal education system and biased industry. They may discriminate school-based learning as superior to other forms of learning.
- Creating awareness and establishing trust amongst industry to accept the learning outcomes gained in non-traditional settings. Changing current mindset that devalues learning outside the formal system of education
- Preparation of a separate inclusive policy on RVA, considering the diverse culture, multilingual states
- Non-interruptive fund flow for smooth functioning of RPL centres

Conclusion

Lifelong Learning is imperative to promote and develop a learning society. It helps people to cope with the changing conditions. Recognition of non-formal and informal learning is a milestone of LLL strategy. India should take initiative to implement the policy for validation of non-formal and informal learning. RPL will ensure a more equitable distribution of job opportunities. It will enable millions of people to gain livelihood, which will result in an inclusive and sustained growth. It will address the skills gaps in today's market. This will also give a positive boost to labour market, with skilled workforce entering into it.

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Understanding Socio-Economic Conditions of Rickshaw Pullers of Delhi after Introduction of e-Rickshaws

Deepak Goswami
Vandana Sisodia

The origin of word 'rickshaw' is derived from the Japanese word '*jirikisha*', which means "human-powered vehicle" (Wikipedia). The rickshaw is one of the oldest modes of transportation and was first introduced in late 19th century. The cycle rickshaws are considered as the prominent mode of transportation for short distances in transport sector because it is eco-friendly and can easily go to places where other modes of transport cannot go. It is used all across the world, but more common in the Asian countries, especially in India and Bangladesh.

Cycle Rickshaw pulling is one of the important occupations of the unorganized sector, where approximately ten millions of poor migrants not only serve the transportation needs of the society but also try to meet out their own economic and employment needs (Kishwar, 2009). The rickshaw pullers have to earn their living by transporting people and goods from one destination to another by peddling for miles day and night, often carrying heavier loads. They are doing all these things just to earn bread for their family. Despite seeing the economic importance of cycle rickshaw to the low-income families and eco-friendly benefits of this occupation, the public attitude towards the cycle rickshaws in India, by and large, are negative. In all urban areas of the country, many people coming here for the sake of employment starts rickshaw pulling as a profession because in this they get instant money for their work, which is not enough for them as they have to save money for their family too (Begam & Binayak, 2004). In all urban areas of the country, the socio-economic conditions of rickshaw pullers are miserable. They are many times subjected to social ignorance, apathy and injustice. All these people are being treated as outcaste and unwanted burden on the society. The existing social assistance programmes have not reached to these people due to which they are still remaining as vulnerable population.

Like any other old cities, Delhi also has a large number of cycle rickshaws but their movement is restricted to only old city where they cruise through crowded places and narrow lanes. Most of the cycle rickshaw pullers are migrants from different places of India speaking different languages, many times in their own dialects. These rickshaws have no permission to enter into New Delhi. In the meantime, during Commonwealth Games in the year 2010 e-rickshaws were introduced to phase out the physically taxing cycle rickshaws as e-rickshaws are battery operated. Unfortunately, e-rickshaws have become an added transportation system with its

own brand with the result the cycle rickshaws continue to operate competing the new brand e-rickshaws. The end result is there is an intense struggle for the cycle rickshaw pullers in the competitive job market in which they continue for want of alternative job and alternative skill.

Hence, we have taken a topic to study the socio-economic conditions of the cycle rickshaw pullers after the introduction of e-rickshaws and restricted the same to the rickshaw pullers in and around the areas of University of Delhi only.

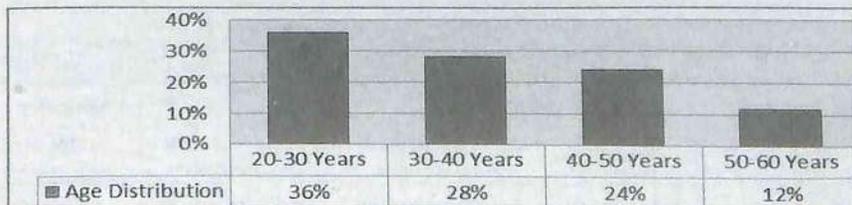
The objectives of this study are - to analyze the socio-economic status of rickshaw pullers, to find out their special skills and willingness to learn, to focus the implications of rickshaw pulling on their health and to analysis the effect of e-rickshaws on their work and income.

The methodology adopted by us is both observation and collection of data by using interview schedule. The number of respondents was fixed as 100. The collection of data through interview was done from the rickshaw pullers in their own places where they normally wait for the passengers. The waiting places are self-demarcated one by the group of rickshaw pullers themselves and normally they do not trespass into another area as it will create rivalry and fighting. The study was divided into two parts to cover definite aspects relating to their life, i.e. their socio-economic status and the effect of e-rickshaw on the earnings.

Findings of the Study

Rickshaw pulling is a laborious task which, demands tough labour and good physical health. It can generally be delivered by young people with sound health conditions. Therefore, Age plays a pivotal and crucial role in rickshaw pulling, which is clearly seen in **Graph-1** given below.

Graph – 1: Age distribution of cycle rickshaw pullers

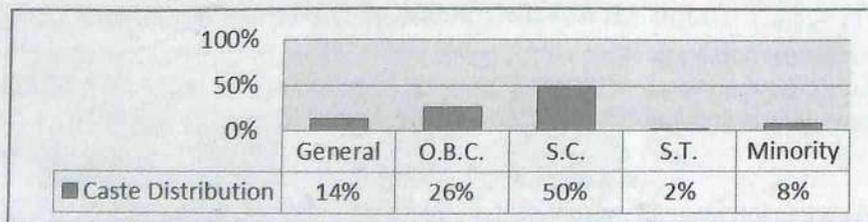


Around 36% of the rickshaw pullers belong to the age group 20-30 years. This is the age they have good health and intension to work and earn money. This is also the age for getting married and begetting children. The family responsibilities make them to earn whatever the job they get and whatever is the little skill they have they can use it. Around 28% of the rickshaw pullers found to be in the age group 30-40

years. Though the percentage is less than the one in the age group 20-30 years, it is still an appreciable percentage. This age group continues to be productive and reproductive with more or less the same health to that of the persons in the age group 20-30 years. However, the percentage declined further to 24% in the age group 40-50 years which clearly shows aging. Finally, 50-60 years group is only 12%, may be due to old age and less of strength to carry out the strenuous job of pulling the rickshaws with load. It was found from the interview that many of the elderly rickshaw pullers prefer to return to their hometown and those who decided to stay and continue rickshaw pulling face problem to find passengers, as many prefer to hire young rickshaw pullers over the aged ones as they think that the young can take them to their destinations faster.

The Indian society is stratified in the name of caste. Traditionally, a few castes could not come-up in the ladder even though opportunities are provided. Such people are left behind in the development with the result inclusive growth is a distant dream for Indian economy. People belong to low castes are not only socially backward but also economically. The hard and strenuous work classified as low is always attended to by low cast people. Cycle rickshaw pulling is one in that list which has been proved in our study also. Indian society also has religion as another aspect of division. In a predominantly Hindu nation, other religions also thrive which include Christianity, Islam, Jainism, Buddhism, Judaism. While the followers of other religions have become educationally and economically forward, the advancement made by them has not been reflected in the followers of Islam. Hence, more number of programmes of the government focuses for the improvement of Muslim minority, but still a long way to go. Hence, in our study we have collected data not only regarding the persons belong to SC, ST, OBC and General but also the Muslim minority who are engaged in rickshaw pulling. The data given in **Graph-2** shows the percentage of persons from different castes and minority engaged in this hard task.

Graph – 2: Caste distribution of rickshaw pullers



It is very clear from the graph that maximum number of the rickshaw pullers (50%) belong to Schedule Castes which is followed by Other Backward Casts (26%). However, the Scheduled Tribes are only 2% leaving 14% for General Category in which all other castes come in. Around 8% of the rickshaw pullers are Muslims. Overall the data also reveals that poverty never asks for caste as both General and OBCs combined together is 40%.

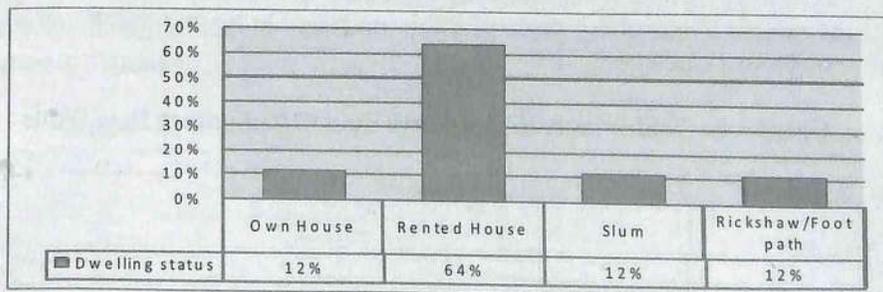
The **Graph-3** shows marital status of rickshaw pullers in Delhi University area. There is about 86% of the rickshaw pullers are married, 12% unmarried and 2% are widowers. The high percentage of married rickshaw pullers is because most of them are migrated from rural areas where early marriage is still predominant. Many of the unmarried rickshaw pullers are very young and they told that they plan to marry shortly. A few also told that their income is meager which is not sufficient to sustain their individual life and hence, not thinking of marriage which will be an additional burden in life.

Graph – 3: Marital status of rickshaw pullers

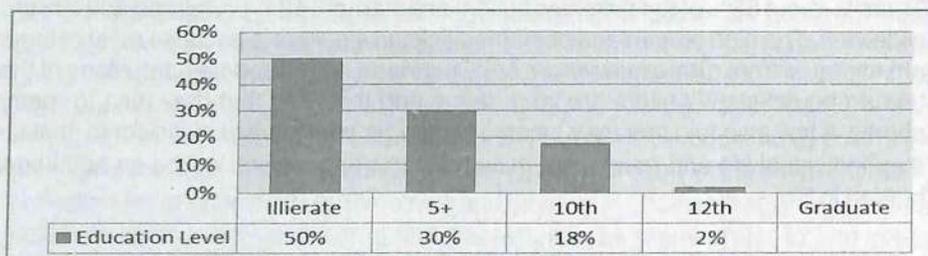


The **Graph – 4** shows the dwelling status of rickshaw pullers. As many of them are seasonal migrants they prefer to live in rented rooms sharing with other rickshaw pullers. Hence, it is as high as 64%. Around 12% have their own houses in the city, may be due to their parents permanently migrated to Delhi long before. Majority of such rickshaw pullers are second generation in the city. The data also reveals that 12% live in slum areas where the monthly rent is comparably low than other places. Another 12% neither have rented houses, nor own, nor in slums but sleep in their rickshaws and in the footpaths.

Graph – 4: Dwelling status of rickshaw pullers

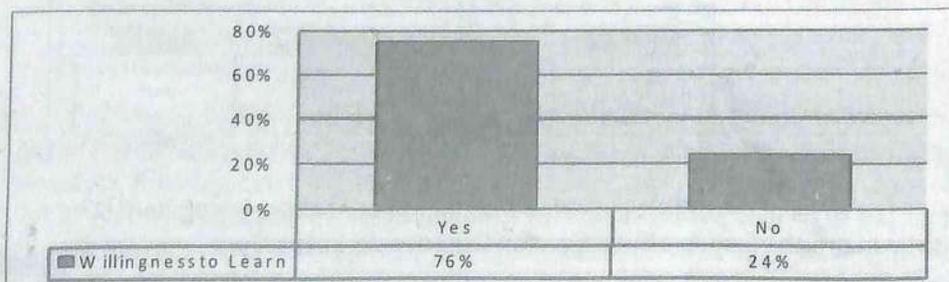


The level of education indicates the degree of social development. The data given in **graph - 5** shows the education level of rickshaw pullers.

Graph - 5: Educational Status of Rickshaw Pullers

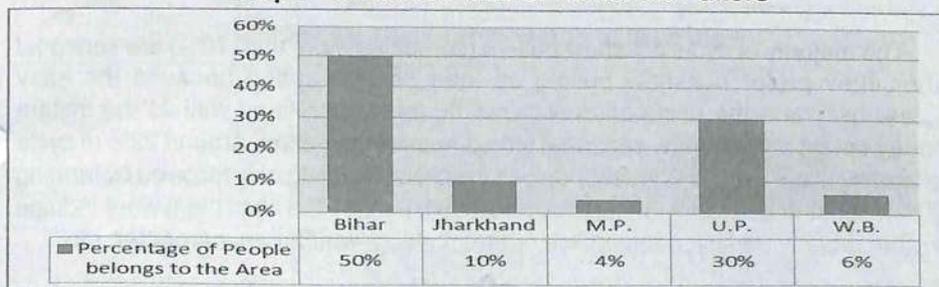
Majority of cycle rickshaw pullers (50%) are illiterate and (30%) of them are semi-literate or partially literate (primary or upper primary). The data also reveals that only (18%) of them are metric (10th), and (2%) of them are intermediate (12th). The illiterates and partially literate (primary) rickshaw pullers combine (80%) of all cycle rickshaw pullers, which clears the picture that rickshaw pullers are extremely backward not only socially and economically but also educationally. It may be due to their lower income, poverty, due to non-accessibility of the educational institutions, and prevailing thinking about education. Therefore, due to lack of education they are unable to opt other alternatives to earn basic livelihood. On the other hand, they could easily absorb under the profession of rickshaw pulling, which is easily accessible and here one can get instant money for their work.

The **graph - 6** shows the willingness of rickshaw pullers to learn or acquire new skills for upgrading their socioeconomic status. As given in the above **graph - 5**, the high percentage of illiteracy and partially literacy is the main cause of rickshaw pulling in migrated population. While interacting with rickshaw pullers during data collection, it is found that the majority (76%) of the rickshaw pullers are ready to acquire new skills to upgrade their socioeconomic condition, if government will provide it in their leisure time and assure employability to them. Those who denied (24%) learning/acquire new skills are mainly elderly rickshaw pullers and their main excuse was "their age", they said in this age what we will do by acquiring new skills or learn (i.e. they are old to learn) but some of them are ready to learn if that knowledge guarantee them a placement.

Graph - 6: Willingness of Rickshaw Pullers to Acquire New Skills

The rickshaw pullers are mainly migrated people from rural areas of the country, they migrated to urban areas of the country for the better opportunity of work. So that they can feed their family and fulfil their basic needs. The main causes of migration are poverty and less work opportunity (as shown in graph (8)). The following **graph - 7** shows the native place of rickshaw pullers. The majority of the rickshaw pullers (50%) are belongs to Bihar followed by Uttar Pradesh (30%) and (10%) Jharkhand. Around 6% belongs to West Bengal, and 4% belongs to Madhya Pradesh. The combine population (80%) of rickshaw pullers is migrated from Bihar and Uttar Pradesh only, which is due to the large population, less resources, and low level of education and employability in both of the states.

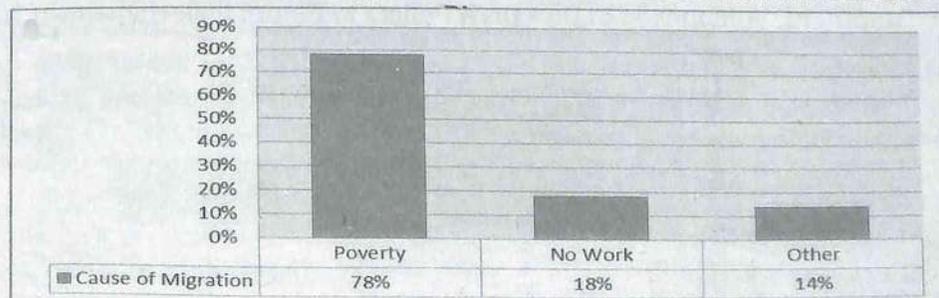
Graph - 7: Native Place of Rickshaw Pullers



There may be many causes of migration but the two main causes of migration are poverty (78%) and no work (18%) opportunities in native place. The **graph - 8** shows the causes of migration of rickshaw pullers, which leads them to migrate to the urban areas. The poverty leads many people to leave their home and force them to migrate to cities, where they indulge in this profession because of its easy accessibility and instant payment; here they live in a very miserable condition to save money for their family. If state governments will provide them some earning opportunities near their home then it will help in migration reduction. Some (14%) of them have other reason to leave their home like family dispute, fight, love, etc.

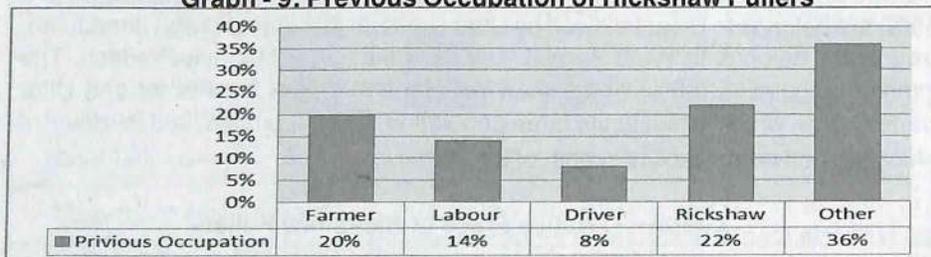
The natural disasters (like drought, flood, earth quack, etc.) are also being the cause of migration.

Graph - 8: Cause of Migration of Rickshaw Pullers from their Native



The previous occupation of rickshaw pullers is one of the important indicators for analysis of socio-economic conditions of them. The **graph - 9** shows the percentage distribution of previous work of rickshaw pullers.

Graph - 9: Previous Occupation of Rickshaw Pullers

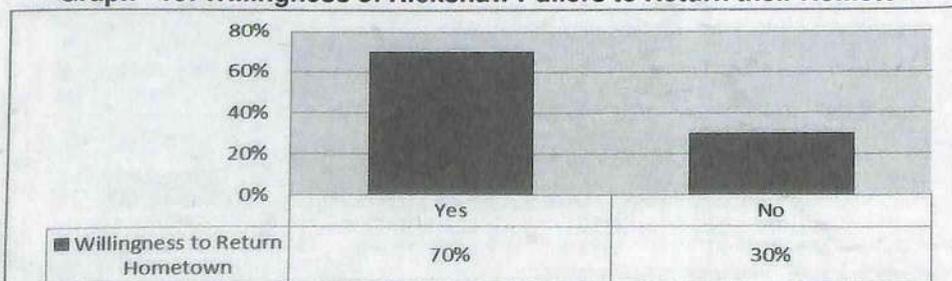


The majority of cycle rickshaw pullers (combines more than 70%) are seasonal labor, they prefer rickshaw pulling as their second option because the easy accessibility and the occupation requires no special skills as well as the instant money option attract many seasonal labors to this occupation. Around 22% of cycle rickshaw pullers were previously indulges in rickshaw pulling only followed by farming (20%), construction labor (14%) and driving (8%). Many (36%) of them were indulge in other labor work like, cooking, ice cream making, watchman, carpenter, etc.

No one wants to leave their home, if he/she gets enough opportunities of employability/work near their hometown. Many people migrated to urban areas in search of better opportunities of earning, which help them to fight with their poverty. The **graph - 10** shows the willingness of rickshaw pullers to return their hometown. Majorities (70%) of cycle rickshaw pullers show their willingness to return their native place, if they have good work opportunity there and around 30% of them denied to return their native place (many of them are permanently migrated to city by selling everything in their native place).

If the state governments and the center government will provide better work opportunity to the person living in rural areas who mainly depends on agriculture, then they can reduce up to 60% of migration. MNREGA is one of the best examples in this case (if implemented better).

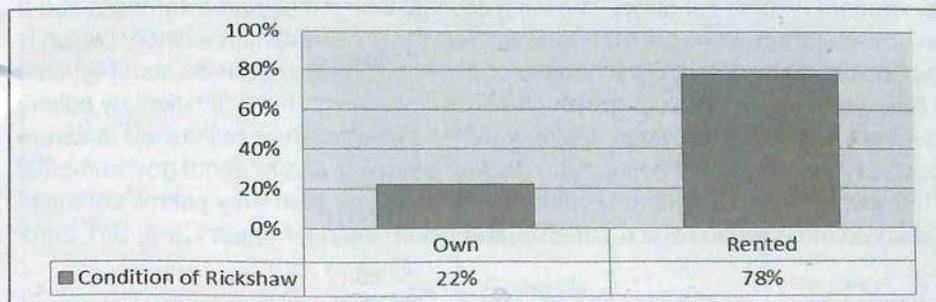
Graph - 10: Willingness of Rickshaw Pullers to Return their Hometown



Many of the rickshaw pullers are migrants and seasonal labor, so they are not in a position to own a cycle rickshaw. Hence, they took one on rent from a contractor, who owns surplus rickshaws. The main benefit of renting rather than owning a cycle rickshaw is that migrant rickshaw pullers can return to their work or villages during the peak farming period without worrying about the security of their asset. Seasonal and temporary migration is thus more in line with the rickshaw rental market. The **graph - 11** shows the ownership of rickshaw, it is clearly seen in the graph that around 78% rickshaws are rented and only 22% rickshaw pullers owns rickshaw. The other causes of not owning rickshaw are law and loan problem.

Per day rent of the rickshaw is up to 50-60 rupees, which is depends on the contractor (Thekedar).

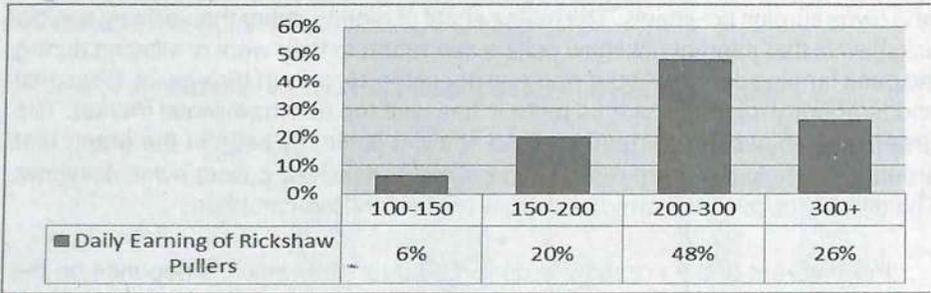
Graph - 11: Ownership status of Rickshaw



The following **graph - 12** shows the daily earning by the rickshaw pullers in rupees. In the graph, it is clearly that majority (48%) of rickshaw pullers in Delhi University area earns up to 300 rupees per day, some (26%) of them earns more than 300 rupees per day; around 20% of them earns up to 200 rupees per day. Only 6% of them earns up to 150 rupees per day (mainly elderly rickshaw pullers). Majority (74%) of rickshaw pullers earns up to 300 or more rupees per day in Delhi University area which is more than other rickshaw pullers, who are plying rickshaw in other part of the city.

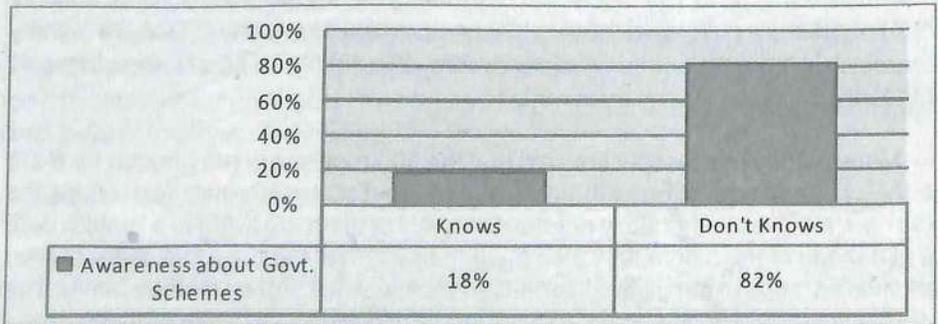
Many of the rickshaw pullers said that the 300 rupees are not enough for them as their expenditure per day is up to more than 150 (which includes rent of the rickshaw, food, and other daily needs) as mostly of them are living in a rented room so at the end of the month they also have to pay the rent of the room. Hence, after reducing all these expenditure, it is hard for them to save money for their family. The rickshaw pullers, who are permanently migrated to city, faced more problem as the expenses in the city are very high as compared to village.

During holidays (when colleges are closed), the one day earning of many of the rickshaw pullers reduced to 100-150 rupees.

Graph - 12: Everyday Earning of Rickshaw Pullers in Rupees

The awareness about the governmental policies among rickshaw pullers is very low, due to which, they are unable to take benefit of many welfare scheme and curse government for their condition. The main causes behind their non-awareness about governmental schemes are their illiteracy and the government machinery (which is responsible to implement the scheme properly and spread awareness about scheme to the masses). The data of **graph - 13** shows the awareness of rickshaw pullers about governmental schemes. Majority (82%) of the rickshaw pullers are unaware about any governmental policy. Only 18% of them are aware about governmental schemes, while asking them to name some schemes then they seems confused and some them replied few names i.e. Jan Dhan Yojana, Adhaar Card, BPL card, etc.

The lack of awareness about governmental schemes among rickshaw pullers is one the main cause of their vulnerability and marginality.

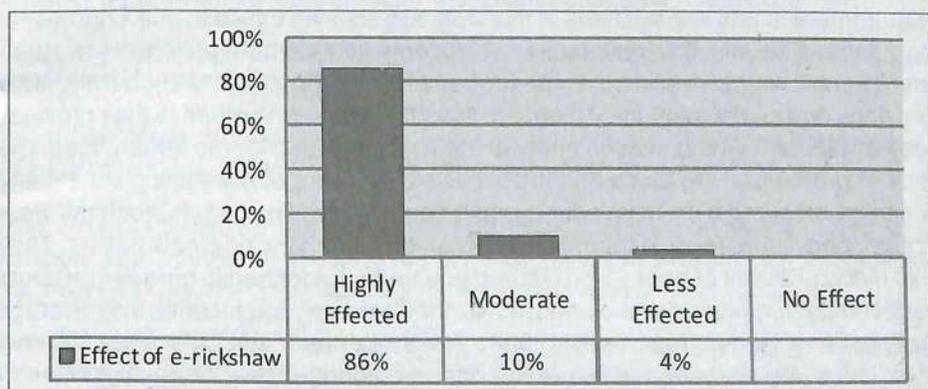
Graph - 13: Awareness of Rickshaw Pullers about Governmental Schemes

The main aim behind introducing the e-rickshaw was to replace them with existing cycle rickshaw but the government did not implement their scheme properly i.e. instead providing e-rickshaws to cycle rickshaw pullers they open the e-rickshaws for everyone. Therefore, the marginalized rickshaw pullers were not able to own their e-rickshaw (as they had no money to buy a cycle rickshaw then how they could able

to buy an e-rickshaw). After arrival of the e-rickshaw the cycle rickshaw pullers become more vulnerable in term of earning money. The e-rickshaw pullers become a tough competition for cycle rickshaw pullers as the e-rickshaw runs on electricity and faster than cycle rickshaw, and also charges less than cycle rickshaw pullers due to which the earning of rickshaw pullers reduced up to 50-75%.

The data of **graph - 14** shows, the effect of e-rickshaw on cycle rickshaw pullers; it is clearly seen in the graph that majority (86%) of rickshaw pullers are highly effected by the e-rickshaw (i.e. the e-rickshaw highly affect their earning), some (10%) of them thinks that the e-rickshaw somehow effect their earning, and around 4% of them said that there is very less effect of e-rickshaw on their earning.

Graph - 14: Level of Effect of the e-rickshaw on Cycle Rickshaw Pullers



Health always shows the socioeconomic status of a person and also informed about quality of life. The health problems and bad habits of rickshaw pullers are the main cause which affects their socioeconomic condition. Rickshaw pulling is an arduous job, therefore, this tough and tiring profession demands good and sound health. It has been reported during interaction with rickshaw pullers that they are suffering from many diseases due to malnutrition, unhygienic living standards, tough nature of work and pollution problems etc. but fortunately no one of them having any serious health problem, while asking them about health problem many of them replied that if they have any major health problem then they are not able to this arduous work. The main common health problem in the rickshaw pullers are cough, body pain, fever, different chronic diseases (T.B., Asthama, etc.) For which, they took medicines from the medicals stores (many of them) without consulting and medical physician or doctors. The most of the rickshaw pullers are plying rickshaw for whole day and doing hard physical work without having a proper diet due to which they feel weakness and body pain.

It is found that the majorities of rickshaw pullers take tobacco (chewing or smoking) and often drinks. They are defending their bad habits by saying that they are taking

this things because they wants to get rid of their tiredness of peddling and arduous nature of work. Some of the rickshaw pullers are gamblers and few of them are addicted to Ganja (opium). These bad habits makes their socio-economic status more worsen, it also deteriorate the overall life (social & Family). However, some of them have no bad habits, as they said that they here to earn money to feed their family and these bad habits may spoil their life.

Conclusion

The study found that the condition of rickshaw pullers in Delhi University area is no better than the rest of them in other parts of the city. The major causes which compelled them to engage themselves in rickshaw pulling are poverty, unemployment, large family size, family disintegration, illiteracy, desire of work, debt, small size of land holdings, natural disaster etc. The Instant income, quick engagement, and no requirement of any especial skill in this work are also the cause to pull a number of populations to join this occupation. A majority of rickshaw pullers were rural-immigrants, who arrived to the city for better work opportunities by leaving their previous occupations (many of them are seasonal labor, who return to their previous job i.e. in peak farming season many of them return to their home for farming). The lack of proper parking place and irresponsible behavior of rickshaw pullers many times creates traffic problems during rush hours. Prevailing health problems were cough, body pain, fever, different chronic diseases among the rickshaw pullers. They use medical stores or poor, sub-standard private clinics for health care at free hours to get cheaper medicines for diagnosis. As, they earn very low income, their average daily income ranges from rupees 200 to 250 (better than other place but still very low). The study also underlines the need for a comprehensive policy of welfare of these marginalized millions as they provide easy and cheap transport option to the people besides contributing towards environmental conservations and protection.

The e-rickshaw pullers become a tough competition for cycle rickshaw pullers as e-rickshaw runs on electricity and faster than cycle rickshaw, and charges less than cycle rickshaw pullers due to which the earning of rickshaw pullers reduced up to 50-75%.

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Role of International Organizations in Lifelong Learning

*Sudip Bhattacharya
Prasenjit Deb*

Lifelong learning is offered as a means for enabling individuals, organizations and nations to meet the challenges of an increasingly competitive world. It suggests an extension of opportunity, involving all adults, whatever their interests or experiences. Malcom (1998) realized that there is also, however, a strong sense of expectation, even compulsion, with emphasis given to vocational forms of study and participation.¹ In recent years, lifelong learning has become one of the most outstanding education policy targets. According to Jakobi (2009), international organizations have promoted the idea of lifelong learning and disseminated the need for it to countries all over the world. As a consequence of their activity, lifelong learning has become a central element of modern education policy.² Lifelong learning has become the accepted currency of official contemporary dialogue on education to an extent that risks reducing it to rain slogan unless it is continuity subject to detail scrutiny. The concept of lifelong learning was developed during 1960s at the time of rapid growth in educational investments to serve precisely as a counterweight to the common equation of learning in general, and institutionalize formal school and University education, on the other. International Organizations are the main cause towards the diffusion of lifelong learning across the globe. International Organizations, in principle, have the five instruments at hand to influence national policy development such as, disseminating ideas, setting standards, providing financial means, coordinating policy efforts, and offering technical assistance.

International organizations were the principal supporter of lifelong learning when the concept was first developed in the early 1970s. Although different organizations used different labels, such as, Lifelong Learning, Recurrent Education, Permanent Education—they all emphasized that learning is a lifelong process and that all education should be organized around that principle. In the 1990s the idea re-emerged, again conceptualized and propagated by International Organizations, this time however with a strong human capital rationale. Unlike the first generation idea, this new concept was advocated both by governments of the Western Industrialized Countries and Industry. Schuetze (2006) studied the role of International Organizations in the conceptualization and implementation of lifelong learning. They believed that International Organizations do not operate on their own but that their debates and agendas are influenced by National Governments who use them for pushing and legitimizing their own political agendas.³ Healy (2002), for instance, identifies to further distinctive characteristic of the lifelong learning agenda. In addition to learning being 'lifelong', it should be - life-wide because it does not stop at the door of a school or college and life-connected because it is fundamentally a social activity rooted in human commodity and interaction.⁴

Objectives of the Study

In this connection, we have conducted a study with regard to international organizations working/promoting lifelong learning across the world with three objectives. The objectives of the study are given below:

1. to study different International Organizations working in the field of lifelong learning,
2. to assess the role of different International Organizations in promoting the lifelong learning across the Globe, and
3. to study the impact of the International Organizations in succeeding the lifelong learning to eradicate the basic problems of the developing countries with special reference to India.

Methodology

The entire analysis is based on the secondary data available in the books of different writers, periodicals, the reports of different International Organizations, as well as their websites. This article explores the scope and limitations of lifelong learning as an object of policy. In the first, the evolution of the social democratic perspective is briefly illustrated. According to this perspective, it was suggested that an attempt to render lifelong learning as an object of policy entailed a reductionist concept of learning so that it stood for little more than the expansion of education and training provision. Analytic distinctions between education and learning, function and provision, policy and strategy, and markets and quasi-markets are employed to explore various policy models. It is suggested that this perspective on lifelong learning needs to be understood in relation to policies for welfare reform and the crisis of the welfare state. In effect, it amounts to the integration of education policy into wider policies for welfare reform.⁵

Discussion

Lifelong learning has recently re-emerged as one of the "hottest" topics in public discussion about the organization of education and training for adults in the 21st century. The commonly agreeable topic of "lifelong learning" has demanded an analysis of the dynamics of "late modernity." This article also examines current theories of late modern societies in terms of their implications for understanding the pre-eminence of lifelong learning. It argues that late modernity is the period of social development in which lifelong learning becomes the necessary condition of survival. Societies, organizations and individuals have to learn in order to survive in the lifelong learning society. In particular, the focus is upon the implications of new theoretical perspectives for the formulation of key research questions about adult and continuing education in the "lifelong learning society." It also looks the issues concerning the societal organization of social allocation and the distribution of opportunities to participate in

lifelong learning. This is followed by an argument of the emergence of learning organization as specific arenas for the location of lifelong learning in late modern societies.⁶ International organizations have played a fundamental role in the lifelong learning. With the notable exception of the Nordic Countries, the promotion of lifelong learning from the end of the 1960s over the next decade was most closely associated with the International Organizations.⁷ Now the question is why lifelong learning should have been such a territory of the International Organizations? The brief overview of the International Organizations responsible for promoting the lifelong learning is as below.

Establishment of International Institutions has become a central feature of modern international politics. Participation in International Organizations, which itself is often used as an indicator of integration into the Wider World System, may lead to the active incorporation of nation states with worldwide connotations. There are four principal International Organizations, constituting national state members, which have the capability to influence globalization and regionalism profoundly. They are World Trade Organization (WTO), International Monetary Fund (IMF), World Bank (WB) and United Nations (UN)⁸ and they have emerged as a product of "multilateralism" in the outcome of the World War II. Multilateralism "refers to forms of collective action among states on the international level". Now we would like to give a brief description about the World Bank (WB), Organization for Economic Cooperation and Development (OECD), United Nation Educational, Scientific and Cultural Organization (UNESCO), and European Union (EU) to highlight how they overlap and differ in their work in the field of lifelong education.

World Bank

The World Bank, often referred to as "The Bank," was established in 1944 during the re-constructionist period of post-World War II with the mandate to support the post-war construction of Europe. Stemming from the International Reconstruction Development Bank, in the late 1950s, the Bank's objective changed from reconstructing war-torn Europe to focusing on the priorities of newly emerging developing countries. According to World Bank, its mission is "to fight poverty with passion and professionalism for lasting results and to help people help themselves and their environment by providing resources, sharing knowledge, building capacity and forging partnerships in the public and private sectors" (World Bank 2011a). The Bank supports equitable and sustainable long-term development by providing various types of loans to middle-income and credit-worthy countries (through the International Bank for Reconstruction and Development [IBRD]) and offering assistance on concessional terms to the World's Poorest Countries through the International Development Association [IDA]; (World Bank 2010b). The Bank is considered the world's largest funder of education and the largest international development research institute, particularly in the global South. The Bank is committed to embedding discourses of marketization, privatization, flexibilization, and deregulation. However,

the term "neoliberal" is not one that many Bank staff would apply to their work, nor do the Bank's policies replicate the hyper aggression of 1980s' "Washington Consensus" neoliberalism.

Organization for Economic Cooperation and Development

The Organization for Economic Cooperation and Development originated in September 1961 derived from the Organization for European Economic Cooperation (OEEC). The OEEC was created in late 1940s to supervise the European Recovery Programme (i.e., Marshall Aid Plan) instituted by the United States to economically revive Western Europe after World War II. In the mid to late 1950s, as the recovery reached its peak, the OEEC's mandate came to an end. As a result, the Organization for Economic Cooperation and Development was born whose geographical coverage extended beyond Europe and included the developed world's 30 major national economies. Its mission was committed to promoting democracy and the market economy. The current mandate of Organization for Economic Cooperation and Development is to support economic growth, promote employment, and assist countries in their drive to economic development, and advance world trade and democracy. The Organization for Economic Cooperation and Development's policy influence derives from its knowledge production capacities and the subsequent perception of the "quality of its information and analysis". It regularly publishes influential cross-national, comparative statistics, and indicators. Unlike the World Bank, the Organization for Economic Cooperation and Development has a broader political influence because it has a much more inclusive social agenda by balancing economic and social policy objectives. To this end, the Organization for Economic Cooperation and Development sustains a social agenda without excluding the orthodox economic policy agenda and vice-versa.

United Nation Educational, Scientific and Cultural Organization

The United Nation Educational, Scientific and Cultural Organization began in 1946 and is derived from the International Institute of Intellectual Cooperation (IICI) and the International Bureau of Education. This organization grew out of the mid 1940s' war-torn social conditions in Europe. In 1945, a United Nations Conference was convened for the establishment of an educational and cultural organization. In this conference, the representatives of 44 countries gathered and decided to create an organization that would embody a genuine culture of peace (UNESCO2010a). According to United Nation Educational, Scientific and Cultural Organization's (2010b) Website, its current mandate is to "contribute to the building of peace, the eradication of poverty, sustainable development and intercultural dialogue through education, the sciences, culture, communication and information." It is one of the International Organizations with a mandate in Lifelong Learning. It plays an important standard-setting role through its regional conventions on recognition of qualifications, which are legally binding instruments that have been ratified by 100 member nation-states

(UNESCO2004). Unlike the World Bank and Organization for Economic Cooperation and Development, the United Nation Educational, Scientific and Cultural Organization has a more inclusive social agenda of Lifelong Learning by emphasizing human rights, cultural diversity and implementing the scheme of Technical and Vocational Education & Training (TVET). However, the organization still supports a lifelong learning regulatory agenda by focusing on cross-border quality assurance that normalizes global and national markets.

European Union

Historically, the idea of a European Nations' Union grew out of a desire to maintain peace after World War II. This political plan was focused on economic ties. In the following decades, as more countries joined and economic union became insufficient, a new union was assembled to embrace wider political, economic, and social policies. This broader social perspective changed the title of the union from the European Economic Community (EEC) to the European Union after the Maastricht Treaty in 1992. Now, again in 2016, the United Kingdom wants to quit from the European Union and hence, the European Union may again be restructured. The European Union reflects an economic agreement facilitating free trade and a social and political union among member countries. The Maastricht Treaty recognized the European Union's role in promoting education and cooperation among European Countries.⁹

International Organizations have promoted the ideas that the lifelong learning is the important tool for national and individual progress. They have underlined its role in ensuring economic development at the advent of the knowledge society, for industrialized countries as well as developing nations or countries in transition. They have also emphasized the need for lifelong learning in the context of individual employability and self development. Examples of International Organizations that disseminated the idea of lifelong learning are UNESCO and its "Commission for Education in the 21st Century", the OECD meeting on "Lifelong Learning for All", the "European Year of Lifelong Learning", and the World Bank Conference on Lifelong Learning. Standard setting activities have been undertaken by UN Organizations such as UNESCO or ILO and their respective recommendations in the context of Adult Education as well as benchmarks created within the framework of OMC education. Financial means, as a third instrument for lifelong learning promotion have been invested by the World Bank and the EU.¹⁰

The effects of International Organizations in various continents are given below:

Europe

When lifelong learning emerged as a key theme of educational policy in 1990s, International Organization (UNESCO, OECD, EU etc.) played a decisive role. In 1970s, the UNESCO had stimulated about 'Lifelong Education' (1972), the OECD about 'Recurrent Education' (1973). In contrast, the EU had no such pedigree.

Although, the Council of Europe had advocated 'Permanent Education' as early as 1966, the EU itself had been silent. Since then, lifelong learning has developed from a policy concept popular among International Organizations into a central feature in educational, welfare and labour market policies, and a key element in private and third sector activity-across the 'developed' World. This is concerned with the development and nature of the EU's thinking on lifelong learning, with the part this plays in shaping public policy within member states, and with how the EU interacts with other 'actors' in relation to lifelong learning.¹¹

Asia

Many International Organizations have certain education components in their programmes. International organizations are active in Asia in similar ways for the rest of the world, such as agenda setting, innovating and disseminating fresh ideas through the coordination and distribution of statistics and policy papers and effective solutions to national problem, and creating professional transnational networks in the field of educational policy through the organization of conferences. As one of the oldest and most wide-ranging organizations, United Nations (UNESCO) has been actively influencing educational policy making in Asia. By developing and proposing conventions, resolutions and recommendations in the field of education, by promoting lifelong learning, and by establishing worldwide applicable quality assurance system, it shapes policy concepts in its Asian member-states. It established the Asian regional office for primary and compulsory education, which later became the Asia and Pacific Regional Bureau for Education at both Bangkok and New Delhi, to interpret global priorities and goals in a regional context. Another UNESCO regional inter-country cooperative programme, the Asia-Pacific Programme of Educational Innovation (APEID) aimed to strengthen its member-states' capabilities at national and local levels for creation and the use of educational innovation in achieving national goals.

There are a number of other International Organizations that are influential in Asia. The Organization for Economic Cooperation and Development (OECD), for example, publishes annually 'Education at a Glance', which covers Asian Countries. Multilateral collaboration with international organizations is an important part of Asian countries' foreign policy in education. Within the past three decades, Asian Countries have worked with UNESCO, the World Bank, the European Union, the OECD and the WHO. From 1980's, most of the Asian countries began to work with the United Nations Development Programme (UNDP) in education. The UNDP provided with much needed technology and financial assistance, which allow inviting foreign experts and to organize overseas trips for both scholars and officials.¹²

India

The present Indian education system gets acceleration from the National Policy on Education in India, 1986 (modified as Programme of Action in 1992) considers lifelong education as the cherished target of the educational practice which assumes

universal literacy, provision of opportunities for youth, housewives, agricultural and industrial workers and professionals to continue the education of their preference at the pace suited to them. It detects that the serious development concern is the continuous up gradation of skills so as to create manpower resources of the kind and the number requisite by the society. It recommends that the future drive will be in the direction of Open and Distance Learning. These policies were interpreted into practice, and a number of lifelong learning programmes were planned by governmental and non-governmental organizations and universities. The Mumbai and Hyderabad Statements on lifelong learning in 1998 and 2002 which highlighted lifelong learning as a "guiding principle" and an "overarching vision" that seems to have publicized the concept. The Hyderabad Statement on lifelong learning clarified the role of lifelong learning in creation of a learning society and learning community. It emphasized empowering people, expanding their capabilities and choices in life and enabling individuals and societies to deal with the new challenges of the 21st century. However, no concerted effort has been taken since independence to combat the situation like universalisation of lifelong learning. Though Indonesia and China got their independence almost in the same time as India, still they went far ahead due their strong political determination than India. The review of the existing programmes of lifelong learning in India shows that the basic aim of creating a literate environment and learning society has not been fulfilled mainly due to the limitations of the programmes and scarcity of funds. There is lack of innovations, documentations and disseminations of the programmes. This may be because of the inadequate and poor quality of professional training of programme managers. Besides, there is considerable duplication of programmes offered by different agencies leading to wastage of limited resources. In view of the reduction of funding support to Adult Education by 18% during the year 2007, it is of utmost significance that different providers of lifelong learning programmes make collaborative efforts to economize and also develop proper mechanisms of certifications based on commonly worked out evaluation criteria.¹³

Conclusion

The study revealed that the role of International Organizations on the developed countries is more effective. The reasons are obvious. The population is less, literacy rate is high, and the fund mobilization towards functionally literate programmes, in real situation, is high. In the Country, like India where the population is nearly 1.3 billion and the rate of literacy is still less than 80 per cent. No concerted continuous efforts have been taken since independence from the part of Union and provisional Governments for the enhancement of functional literacy rates. Out of 1.3 billion, only 23.8 million people were engaged in different Government or Government sponsored organizations and it is presumed that only 0.4 billion people were engaged in different unorganized sectors. The unemployment figure is varied from 0.60 to 0.70 billion. The rate of growth of unemployed people every year is constantly increasing. If such growth rate will continue then the situation of the country will come under severe depression. The role of International Organizations, hence, would be more prominent and Lifelong Learning is only way to reduce the unemployment rate of the country.

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(Footnotes)

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Indian Higher Education Lagging behind in Quality– Issues and Reasons

*Asma
Farooq Ahmad*

Indian higher education institutions Taxila, Vikramshila and Nalanda occupied a place of prominence in ancient times with the result students not only from within the country but also from foreign countries like Korea, China, Nepal, Burma (now Myanmar) Ceylon (now Sri Lanka) came to these institutions to pursue higher learning. Even today India is a country which has the largest number of higher education institutions in the world. The number of universities are 712 out of which 42 are Central Universities, 310 are State Universities, one Central Open University, 13 State Open Universities, 143 State owned Private Universities, 127 Deemed Universities, 68 Institutions of National Importance and 5 Institutions under State Legislature Act (AISHE 2013-14). By now the number would have increased further. The national level body which reasonably governs the higher education in India is University Grants Commission (UGC). It has the unique distinction of being the only grant-giving agency in the country which has been vested with two responsibilities - that of providing funds and that of coordination, determination and maintenance of standards in institutions of higher education. The mandate of UGC includes promoting and coordinating university education, determining and maintaining standards of teaching, examination and research in universities, framing regulations on minimum standards of education, monitoring developments in the field of collegiate and university education; disbursing grants to the universities and colleges, serving as a vital link between the Union and state governments and Institutions of higher learning and advising the Central and State governments on the measures necessary for improvement of university education. According to India's department of science and technology DST the India's global share of scientific publications is about 3.5% and is ranked at the 9th position in the world (Asma et al 2015).

The student enrolment in Indian higher education in different disciplines are – 40.69% in Arts/ Humanities/Social Science, 16.34% in Engineering and Technology, 14.53% in Commerce, 12.60% in Science, 4.11% in IT and Computer, 2.87% Medical Science, 2.19% in Management, 0.95% in Law, 3.10% in Education, 0.46% in Oriental learning, 0.55% in Agriculture and 1.60% in others. (AISHE Portal). The GER in our country is at 18% which is below than the global average of 27%. When we compare India with China and Brazil in terms of GER in higher education, China has 26% and Brazil 36%. (Understand India: the future of higher Education and opportunities for International cooperation February 2014).

ratio of these marginalised groups in the higher education Institutions as most of them are still out of education.

Attrition in the status of Universities

'Education is like a catalyst which alters the pace of social, economical and intellectual development in the society. But in the current period the catalyst is in the disaster due to the storm of globalisation. The repercussion of this the catalyst has been coated by the paint of materialism and careerism. Therefore the catalyst begets the materialistic minds rather than intellectuals in the society.'

Due to the clench of privatisation the basic meaning of higher education is changing very fast in our country. The prime roles of the higher educational Institutions are to produce the fruits in the form of intellectuals who will help in developing the society and the Nation. In ancient times these higher education Institutions were treated as the temples of intellectuality and human development. The highest higher education Institution in our country is University. In Urdu University is called as (Danesh gaa) means place of intellectuals. Nehru the first Prime Minister of India in his address to Allahabad University defined the aim of University 'a University stands for Humanism, for tolerance for reason, for the adventure of ideas and for the research for truth'. The university education commission 1949 has also highlighted the aim of University in its first chapter of the report. The report defined that the Universities are the homes of intellectual adventures and organs of civilization where the intellectual pioneers of civilization are to be found and trained. These universities are the sanctuaries of the inner life of the Nation. In the contemporary period the status of universities in our country are declined rapidly due to the disaster of materialism and hedonistic consumer passion among the denizens of the Nation. Now these higher learning Institutions have become factories where the students are to be trained for the labour market.

Vocational educational courses are also important for the development of the Nation but we have to maintain the balance between the vocational courses and intellectual objective of higher education. Now a day in our country more focus are given to the vocational educational courses and the intellectual aim of higher education has been put aside by our policy makers. I think the direction in which our higher education is moving in the present time will not be the fruitful for the interest of our Nation in the cultural perspective. In this networking society every student is in the race to get a degree to fulfil his consumer needs for this many students' uses the wrong routes also and in this way erosion of quality education takes place in our country. In addition to this it begets myriad of depravity ways in our society. To take the advantage of this depravity many elites of the country are deceiving people in the name of job oriented courses. They have opened the market of spurious higher education Institutions in the name of vocational courses which is the enigma and the repercussion of this it decimates the label of governance of the higher education in the country.

This is the mighty hindrance in front of our higher education that how to maintain a balance between intellectual component and the vocational component of higher education in this hi-tech materialistic networking society. In addition to this in my opinion there is one more challenge to our higher education that is how to preserve the temples of intellectuality of the country from the inundating negative forces of globalisation.

Women and Higher Education

The representation of women in the higher education has gradually increased due to the National and International efforts. The female population of our country according to the census of 2011 is 58.65 cores. The literacy rate among the females is 64.6% while as the same among males is 80.9% (2011 census). The gross enrolment ratio of females in our higher education is 19.8% at the same time the gross enrolment among the males is 22.3% (2012-13 AISHE Portal). Therefore it is manifest from the AISHE portal data that the females are lagging as compared to males in the higher education. The enrolments of males and females in different programmes of higher education are as in shown in below (in %):

S. No.	Name of programme	Male	Female
1	BA	28.22	37.84
2	B.Com	11.51	11.30
3	BSc	10.41	12.09
4	B.Tech	9.10	4.46
5	BE	8.07	4.06
6	B.Ed	1.34	2.84
7	LLB	0.86	0.48
8	MA	3.45	5.42
9	MSc	1.59	2.31
10	MBA	2.25	1.44
11	M.Com	0.77	1.16
12	MCA	0.92	0.75
13	MBBS	0.46	0.52
14	M.Tech	0.61	0.52
15	ME	0.25	0.22
16	Others	20.20	14.72

Hence it is patent from the above table that that enrolment of girls in higher education is mainly confined to the academic courses.

The number of girls per hundred boys enrolled in different stages of education as it is 94 at primary, 95 at upper primary, 89 at secondary, 87 at senior secondary and 81 in higher education (AISHE Portal 2012-13). The data reveals that the enrolment

numbers of girls are decreased at the level of higher education as it is 87 at senior secondary and 81 at higher education. If we compare the data of pass outs in higher education among males and females the females are behind the males. The total pass outs in higher education is 7940680 out of which males are 4010112 and females 3930568 (AISHE Portal 2012-13).

In my Opinion to tickle the enrolment issue of women in higher education Govt. should open the women Universities and more women colleges in every state of country where only women can study. There should be complete female staff in these higher learning Institutions. There are lot of denizens of the country who curtails daughters from higher education because of male dominating environment in the universities. A significant number of females of the country are not comfortable with the patriarchy environments of university departments and most of them left the education. Even some religious communities in our country are not allowing their female flock to study in Co-education Institutions of higher learning.

Veracity of Seminars in our Higher Education

Seminars are very important component of the research. A group of research students, academicians and the subject experts assemble in any place to exchange the results of their research work through reports and discussions on a specific theme selected by the organisers of the seminar. The main aim of these seminars in social science is to find the solution to problems germinated in the society. In the present time the quality of these seminars has been degraded. They have become just a place of gathering. The way these seminars are organised it will lead noxious repercussions on the research. We have participated myriad number of seminars in the social science funded by either ICSSR or UGC. Therefore we have made some observations during these events. The first thing that we have observed as these seminars have became a way of earning money for organisers through registration fee. The second thing which we have often noticed in these seminars very less time is provided to the paper presenters. The third thing which we have seen is that the selling of certificates to those who even did not attend the seminar. In addition to this during the paper presentation tenuous persons are listing to the presenter.

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Availability, Utilization and Awareness regarding Assistive Technology used for Children with Learning Difficulties in Inclusive Classrooms by Government School Teachers of UT Chandigarh

**Anuradha Sharma
Navreet Kaur**

Inclusive education is a novel approach to educate the Children with Special Needs with normal children in regular schools. This Inclusive Education Programme tries to fulfill the needs of special children who were earlier marginalized by the society. In Inclusive Education Programme all learners – with or without disabilities being able to learn jointly through access to common educational provisions from pre-school to higher school level. This programme is based on the principle that all children regardless of ability or disability have a basic right to be educated alongside their peers in their neighborhood schools. It has been found from the different studies that if Assistive Technology is used in inclusive model by both general education teachers and special education teachers, it will create wonders in teaching learning process.

Assistive technology can be defined as any item, piece of equipment or system that help people to bypass, work around or compensate for learning difficulties. Assistive technology includes "hi-tech" items, such as reading machines that read books loud through a computerized voice to help persons with reading difficulties; speech recognition systems also belong to the hi-tech group, these systems allow the user to write stories by talking to a computer, rather than having to write the words out by hand. "Low-tech" devices include more common, inexpensive tools, for example, tape recorders enable individuals with memory or listening difficulties to permanently capture spoken information. Other assistive technologies like Spell Checkers, Proof Reading, Speech Synthesizers, Speech Recognition, Outlining, Rebus, Template Method, Brainstorming/Mind Mapping, scaffolding, Familiar Family Words, Word Prediction, Alternative Keyboards, Optical Character Recognition (OCR), Speech synthesis/Screen review, Variable Speech Control (VSC), Talking Calculators, Electronic Math Worksheets, Word Prediction Programmes, Abbreviation ,Expanders, Audio books and publications, Graphic Organizers, Outlining, Personal FM listening systems, Portable Word Processors, Calculators etc.

Both types of assistive devices i.e. "Low-tech" devices and "Hi-tech" items make life easier for persons with learning differences by allowing them to gather information and express their own ideas by using the method that works best for them.

Assistive technology is a support to the special need children especially children having learning difficulties. This assistive technology used for teaching learning process

is not only helpful to children with learning difficulties but also it will give more support to regular school children in understanding the psychosocial learning concept. These devices have the potential to enhance school outcomes, to help students with disabilities to prepare for life after school. This teaching learning assistive technology could add some enjoyment in academics and might be more practical among students with learning difficulty in some cases. Assistive technology, however, should be a part of an overall program to help individuals with learning differences.

In this study researchers try to explore Accessibility, Utilization, Importance and Awareness regarding Assistive Technology used for Children with Special Needs in Inclusive Classrooms by Government School Teachers of UT Chandigarh.

Delimitation of the Study

- This study is focused on only teachers teaching in the inclusive schools.
- Items in the questionnaire are related to Assistive Technology used in teaching learning process, keeping in mind students with learning difficulties.

Objectives of the Study

- To determine the awareness level of Government school teachers towards special need children.
- To study the availability of Assistive Technology in the schools as per government school teachers.
- To find the utilization of different assistive devices used by Government schools teachers for children with learning difficulties.
- To know the problems faced by teachers while using of Assistive and Adaptive devices.

Significance of the Study

According to right to education act every child has a right to education so we should ensure that every school going child of particular age must receive education in a respective manner. In this study children with learning difficulties means children have learning problem i.e. problem in reading, writing and calculation in school. These children do not have outward signs of disability and so these children admitted in the regular schools as there is no sign of disability found in the initial years of their education. So for this purpose educator should have a great role to identify, understand and deal with these children to make their learning easy and accessible. Therefore it is important for the educators to accommodate these children according to their specific learning difficulty by making them use of assistive technology and strategies in the classroom. These devices do not cure or remediate for a specific learning difficulty but these devices compensate them and help the children with learning difficulty to cope up with the other children in the regular classroom.

Thus this research work explores the opinion of government school teachers towards the availability, utilization and importance of assistive strategies in inclusive classroom in regular schools.

Method and Procedure

Design: The present research study was an evaluative and descriptive type of study which describes the awareness level, availability, utilization and importance of assistive technology by the government school teachers of UT Chandigarh.

Sample: The sample was collected from 20 government school teachers of UT Chandigarh from each school four teachers were selected randomly i.e. a total sample of 60 teachers were taken

Research Tools: Self prepared questionnaire was used for data collection, keeping in mind the size of the sample. The present study was conducted with the help of locally prepared and pretested questionnaire to elicit opinions of the teachers.

Data Collection: To avoid the danger of obtaining distorted data, the investigator preferred to contact the respondents personally. Moreover, the respondents needed to be told about the content and purpose of the questionnaire and each question was explained to them. The questionnaire was filled by the investigator herself after getting the reply from them orally.

Data Processing: In the present research work, the nature of data was such that each item had to be analyzed and discussed separately. Some of the items were of 'Yes' & 'No' type whereas some were of multiple choice and subjective.

Analysis and Interpretation of Data

This part analyzes and interprets the data based on the opinion of teachers of government schools of UT Chandigarh. The responses given by the respondents were tabulated and discussed. 60 teachers were taken for the study and the responses had been tabulated in terms of frequency and percentage and were given in a tabular form.

Table - 1 Distribution of Teachers by Age, Gender and Experience

Items		Frequency	Percentage	Mean	Standard Deviation
Age	> 30	31	51.7%	31.22	3.08
	31 - 35	21	35.0%		
	< 35	8	13.3%		
Gender	Male	34	56.7%		
	Female	26	43.3%		
Teaching Experience	> 3	26	43.3%	4.60	2.49
	4 - 6	20	33.3%		
	< 6	14	23.3%		
Average number of students in a class				35.87	3.69

Table-1 deals with the distribution of teachers on the basis of their Age, Gender and Teaching Experiences. Out of 60 teachers, maximum i.e. 31(51.7%) were fall in the age group less than 30 years and 21(35%) were in the age group 31-35 years and only 8(13.3%) were in the age group more than 35 years. Further it was revealed from the study that 34(56.7 %) were male and 26 (43.3%) were female teachers.

Further Table-1 shows the teaching experience, to that 26(43.3%) respondents had less than three years' experience; 20(33.3%) had 4 to 6 years' of experience whereas only 14(23.3%) teachers had more than 6 years' teaching experience. So it can be concluded from the above analysis that maximum teachers taken for sample were young and had less than 6 years' of teaching experience.

Table-2 Distribution of Students in each Class

No of Children with Learning Disability in each class		Frequency	Percentage
Learning Disabled student	3-4	18	30.0%
	5-6	38	63.4
	7-8	4	6.7
	Total	60	100.0%
Average total number of Students in each class		35.87	3.69 Mean

Table-2 deals with the question related with number of children with learning difficulty in each class, to which almost two third i.e. 38(63.4%) teachers reported that they had 5to 6 children, followed by 18(30%) who revealed that 3 to 4 children and very few (6.7%) teachers responded that 7 to 8 children had learning difficulty in each class. Thus it is concluded from the above analysis that maximum students with learning difficulty in each class were five to six children. Table-2 also shows about teachers opinion regarding number of general students in each class, to which teachers revealed that average number of students in each class were about 36 students.

Table-3 Awareness of Teachers towards Different term used in inclusive schools

What do you understand by term Children with Special Needs	Responses	Percentage
Any type of disability	40	66.7%
Only mentally handicapped	16	26.7%
Any type of hidden disability	5	8.0%
Only slow learner	1	1.7%
Total	60	100.0%
Meaning of the term Learning Disability	Responses	Percentage
Slow learner	29	49.2%
Don't Know	19	32.2%
Hidden disability	11	18.6%
Mentally challenged	1	1.7%
Total	60	100.0%

Table-3 shows the awareness towards different terms used in inclusive schools. In response to question 'What do you understand by the term children with special needs'? 40(66.7%) teachers revealed that children having 'any type of disability', 16(26.7%) said that 'mentally challenged children', 5(8%) teachers said 'children with hidden disability' and very few i.e. 1(1.7%) respondent said 'slow learners were termed as children with special needs. Thus it is concluded from the above analysis that teachers were not aware of different types of terms used in inclusive schools.



When asked from the teachers the meaning of Learning Disability. In response to this 29(49.2%) teachers said that 'slow learners are called children with learning disability'; 11(18.6%) said that 'learning disability is a hidden disability'; 1(1.7%) respondent reported that these children were 'mentally challenged' whereas 19(32.2%) respondents revealed that they didn't know the meaning of learning disability.

Thus it is concluded that majority of teachers were not aware with the terms like Children with Special Needs and Children with Learning Disability.

Table-4 Problems faced by Teachers in Inclusive Education Setting with Children with Special Needs

Main problems of students with learning disabilities	No of responses	Percentage
Poor Results	53	88.3%
Hyperactivity	52	86.7%
Lack of Interest	50	83.3%
Poor Time Management	48	80.0%
Academically Backward	45	75.0%
Lack of Concentration	42	70.0%
Poor Self Esteem	38	63.3%
Confused personality	31	51.7%
Mood Swings	23	38.3%
Isolation	20	33.3%
Total	60	100.0%

When asked the question regarding problems faced by teachers with children with special needs in inclusive classroom (Table-4). The respondents came out with the following problems, in order of seriousness: 53(88.3%) respondents said that these students had poor results; 52(86.7%) respondents said that they were hyperactive; 50(83.3%) teachers reported that they had lack of interest in studies; 48(80%) said students with special needs had poor time management; 45(75%) said these students were academically back word; 42(70) teachers said that these students had lack of concentration ; 38(63.3%) said that they had poor self-esteem; 31(51.7%) respondents alleged that these students had confused personality; 23(38.3%) respondents reported that these children's mood swings whereas 20(33.3%) respondents revealed they liked to live-in isolation.

Above analysis revealed that poor result, hyperactivity, lack of interest, poor time management and lack of concentration seems to be the main problems encountered by the teachers while dealing with students with special needs in the inclusive setup.

Table-5 Distribution of Respondents on the basis of Availability, Utilization and Importance of Assistive Technology in the Inclusive Class Room Settings

Sl.No.	Items	Responses		Responses	
		Yes		No	
		Frequency	Percentage	Frequency	Percentage
	Availability of Facilities				
1.	All the facilities are provided for special need children in our school	60	100	0	0
2.	Special Educators are easily available in the Schools	36	60	24	40
3.	Availability of Assistive Technology for teaching learning process for children with learning disability are in our schools	3	5	57	95
4.	Extra time is given to teachers for using Assistive Technology in the class	35	58.3	25	41.7

5.	Extra time is given for preparation of Assistive Technologies/strategies by the administration in the school	60	100	0	0
	Utilization				
6.	Teachers have sufficient knowledge and skills regarding the use of Assistive Technology	60	100	0	0
7.	Assistive technology is used for children with special needs in the school	57	95	3	5
8.	Available Assistive technologies are used for children with learning disabilities in teaching learning process.	45	75	15	25
9.	Assistive Techniques is used for Learning Disabled Children in their examination.	16	27	44	73
10.	Students using Assistive Technology in the class are accepted among their peers	60	100	0	0
	Importance				
11.	Assistive and adaptive technology support the learning disabled students for better learning	60	100	0	0
12.	Assistive technology is important for teaching learning disabled students	60	100	0	0
13.	With the help of Assistive Technology students with learning disabilities can work independently	60	100	0	0
14.	Assistive technology helps students accomplish their task in the class	60	100	0	0
15.	Assistive Technology Devices are effective in the learning process	60	100	0	0

Table-5 depicts the question concerning the availability of facilities for children with special needs in the school. All the teachers revealed that all the needed facilities were provided in our schools for children with special needs; little more than half i.e.36(60%) teachers revealed that special educators were available in the schools whereas very few i.e. only 3(5%)respondent reported that assistive technology devices for teaching learning process was available for the children with learning difficulties. 35(58.3%) teachers said that extra time was given to teachers for using assistive technology in the class whereas all i.e.60 (100%) teachers said that extra time was given for planning and using of assistive technology /strategies by the administration in the school.

When asked about the utilization of assistive technology by the teachers (shown in Table-5) to which all teachers i.e. 60(100%) revealed that they had sufficient

knowledge regarding the assistive technology; 57(95 %) reported that assistive technology was used for children with special needs;45(75%) teachers revealed that they used the assistive technology in teaching learning process for students with learning disability whereas only 16(27%) respondents said that they used for the examinations purposes also, further it was reported by the all 60(100%) respondents that students using assistive technology in the class were accepted by their peers. Further it was also revealed in Table-5 about the opinion of teachers towards the importance of assistive technology. It was reported by all the respondents that Assistive Technology support the children with the learning difficulties in better learning, independent working, in accomplishing their task in the class and helped in learning process. Thus it is concluded from the study that all teachers understand that assistive technology is a great support to the special need children in their teaching learning process once their school received the assistive technology appliances.

Conclusion

The present study was undertaken with an objective to find the awareness level, availability, utilization and importance of assistive technology used for children with special needs having learning difficulties by government school teachers of UT Chandigarh. Findings indicate that there is lack of availability and use of assistive technology among government school teachers. Due to lack of awareness regarding different types of the assistive technology for children with special needs in teaching learning process the importance of assistive technology is missing among the respondents of government schools .So for this purpose there is urgent need to orient school teachers and to introduce more and different types of assistive strategies and technology in schools. Assistive Technology can play an important and significant role in teaching learning process to overcome the academic difficulties and also develop academic skills in students with learning difficulty as well.

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Empowering Mentally Differently Abled Persons: From Human Rights Perspective

*Dazy Zarabi
Shalini Sharma*

Human rights are the rights conferred upon every human being regardless of who they are and where they are and where they live. The concept of human right is based on the principle of equality, non-arbitrariness, justice and human dignity. Legally, human rights are defined in domestic laws of the states and international laws and covenants. But there is still a great deal of controversy regarding how the human rights are to be defined and upheld. Within a state 'human rights' refers to safeguard for the individual against arbitrary use of power by the government or by any private entity regarding the well being of individuals, the freedom and autonomy of individuals and the representation of human interest in government. All these rights include the right to life and personal liberty, freedom of expression, freedom of movement, freedom of religion and right to adequate standard of living, right to self determination, right to education, right to medical care, right to information, right against inhuman treatment and torture etc.¹

According to the census of 2011, there are 26 million persons with disabilities in India² which includes persons with visual, hearing, speech, loco motor and mental disabilities. The Percentage of disabled persons in India has increased both in rural and urban areas during the last decade and the Proportion of disabled population is higher in rural areas. The earlier emphasis on medical rehabilitation has now been replaced by an emphasis on social rehabilitation. The term "Disabled" also meant to include "Mentally Disabled persons".

There has been an increasing recognition of abilities of persons with disabilities and emphasis on mainstreaming them in the society based on their capabilities. In India persons with disabilities are amongst the most marginalized sections of society irrespective of caste, creed and community. They are often excluded from the main stream of the society and denied their human rights. Discrimination against persons with disabilities takes various forms, ranging from individual discrimination such as the denial of education, opportunities to more subtle forms of discrimination, such as segregation and isolation because of the imposition of physical and social barriers. Effects of disability-based discrimination have been particularly severe in fields such as education, employment, housing, transport, cultural life and access to public places and services. In this paper Disability concerns have come to sharp focus over the last two decades with the implementation of several historic and comprehensive legislations for persons with disabilities.

Human Rights of Mentally Challenged Persons

The Indian experience in institutionalized mental health as well as institutionalization of patients has not been civilized. The National Human Rights Commission had issued a condemnation to the state of affairs of mental hospitals. According to the statistics 25 million people in India need psychiatric care and the commission has also realized that misguided private counseling and lack of richer case law has largely compounded to the victims agony and sadness. According to the World Health Organization's report³, that around 450 million people worldwide are affected by mental, neurological or behavioral problems and mental health policies, disability legislations, community care facilities and treatments for people with mental illness and disabilities are not given the priority as they deserve. The condition of inmates is pathetic as they are deserted both by their families as well as by the society.

Still in the 21st century, all abnormal behavior is believed to be the act of Devil, i.e. against god, sinful or result of indulging into immoral acts. Mentally ill were considered as evil and described as witches. Gradually, over the passing of time mental-illness was considered as deviant behavior and became socially unaccepted; many times they were put behind the bars along with other criminals. In modern period there is a shift from devil to ill, mentally ill people are kept in a place called asylum, however now these asylums has become the place the of human exploitation especially for women.

The aim of establishing the asylums was to segregate those who were considered dangerous to the society by the reason of their illness." Asylums" were the place where people who were insane were kept for the safe custody and not for proper treatment. As the time passed patients were incarcerated in these asylums for indefinite period, with a little chance of recovery and release⁴. Consequently, by the end of the century, overcrowding and its impact on the living conditions of the patients made these asylums a veritable inferno.

The role of specialists in the treatment of the mental patients is poor. The Act also obsessed with a persistent concern for the protection of the public from those who were considered dangerous to the society. There was a growing demand and aspirations from the peoples to get better facilities and less rigid procedures for admission, treatment and discharge of the patients. There increased a huge human cry to provide legal safeguards against wrongful detention and proposed rigorous criteria for certification of the mentally-ill. It was recommended that, as far as possible, mentally ill persons should be treated at par with any other sick persons and environment should be natural and familiar, as a result, Mental Health Act of 1987 came into force⁵.

In a nutshell, the progressive features of 1987 Act are- incorporation of modern concepts of mental illness and treatment. They are:

1. Positive role of medical officers, health care workers and other staff.
2. Simplification of rules for admission and discharge.
3. Protection of Human rights of patients.
4. Providing supervision to the standard of care in psychiatric Hospital.
5. Provisions for penalties in case of breach.
6. Focus on "CARE" and not on 'The custody alone'.

The Mental Health Act of 1987 (MHA) came into force officially In April 1993. Actually its implementation has been delayed and appears to be imperfect in many parts of the country. One of the major reasons for this sad state of affairs is the inadequate appreciation of the principles and provisions of the Act by all concerned with its implementation. The state mental health authorities and the community mental health programs as mandated by the national mental health policy have proved to be non-existing in most of the states. The private mental asylums mushroomed in the various parts of the country thus serve as a dumping place for these abandoned persons. The matters relating to the licensing, minimum standard of care, adequate infrastructure and so as prescribed by the MHA goes completely unchecked as most of these asylums are run in the name of the religion.

During the last decade, Mental Health Act has been subject to incisive scrutiny in many regional and national seminars, it is pointed out that, "The focus is more on the treatment of illness, not on prevention and promotion efforts". Social attitude and stigma attached to the illness also taken into consideration.

A report of the National Human Rights Commission⁶ on the Mental Health Institutions revealed that they are two types of Hospitals:-

1. First type - They do not deserve to be called mental health hospitals or centers. They are the dumping grounds for families to abandon their mentally ill family member for either economic reasons or lack of understanding and awareness of mental illness. Despite all advances in treatment, the mentally ill in these hospitals are forced to live a life of incarceration.
2. Second type - Are those that provide basic living amenities. Their role is predominantly custodial and they provide adequate food and shelter. Medical treatment is used to keep patients manageable and very little effort is made to preserve or enhance their living skills. These Hospitals in whole are violating the rights of mentally ill persons to the appropriate treatment⁷ and rehabilitation⁸ and a right to community and family⁹.

The National Human Rights Commission has been successful in bringing into light the institutional abuses and violation of rights of people with mental disability in state as well as private run hospitals. Unhygienic-conditions and unscientific way of treatment to the disabled and forced hysterectomies of girls with disability led to many PILs. It was also demanded that state should implement MHA¹⁰ and should

make the slumbering authorities answerable. The various High courts and Supreme Court ruling on institutional care should be implemented and errant institutions to make accountable. Ultimately justice should be served to the hapless victims who are owing to the disability. The changes should be brought at all levels, family, community, policy and law.

Status of Mentally Challenged from International Perspective

At the international level the principles for the protection of persons with mental illness and for the improvement of Mental Health Care is adopted by the UN General Assembly¹¹. The Universal Declaration of Human Rights has also given a great emphasis for the protection of rights of physical and Mental Health of the people¹² and has directed all its member countries to take the matter in respective countries. In the year 1971, UN General Assembly, made the declaration on the rights of mentally disabled persons and held that "Mentally retarded persons shall have the maximum degree of feasibility and the same rights as other human beings. It is learned that December 3rd was declared as International Day of Disabled Persons, as proclaimed by UN General Assembly.

Besides this, general assembly of the United Nations adopted declaration on the rights of the mentally retarded person in 1971 and declaration on the rights of the disabled person in 1975, which are as follows:

Declaration on the Right of Mentally Retarded Persons (1971)

After recalling the principle of the universal declaration of human rights, the general assembly on December 20, 1971 proclaimed the declaration on the rights of mentally retarded persons and called for national & international action to ensure that it will be used as a common basis and frame of reference for the protection of these rights. The declaration reaffirmed that the mentally retarded persons should have the rights as other human beings and wherever possible should live with his or her family. Rights provided to such persons included a right to proper medical care and physical therapy and education, training, rehabilitation and guidance; a right to economic security and a decent standard of living; a right to a qualified guardian to protect his personal well-being and interest and a right to protection from exploitation, abuse and degrading treatment. If prosecuted for any offence, he shall have a right to due process of law with full recognition being given to his degree of mental responsibility. The General Assembly on December 17, 1991 laid down the principles for the protection of person with mental illness and the mental illness and the improvement of mental health care the principles laid down shall be applied without discrimination of any kind, such as, on ground of disability, race, color, sex, language, political or other opinion, national ethnic or social origin, legal or social status, age, property or birth. The principles included the fundamental freedoms basic rights and a wide range of issues and stated, among other, things, that:

- Physical restraint or involuntary seclusion of a patient shall not be employed except when it be the only means available to prevent immediate harm to the patient or to other;
- sterilization shall never be a treatment for mental illness;
- psychosurgery and other intrusive and irreversible treatment shall not be carried out involuntarily;
- Every effort shall be way to avoid involuntary hospitalization.

The UN General Assembly has set the detailed standard for the protection of person with mental disabilities and it also emphasized that all persons have the right to make themselves available to the best treatment, health care and such person shall be treated with humanity and respect. The Universal Declaration of Human Rights has also directed that individual with mental disabilities have the Right to be protected from economic, sexual and other forms of exploitation and abuses which also includes degrading treatment. For the first time civil and political rights of these peoples is also recognized by the UN General Assembly. The Universal Declaration of Human Rights (UDHR) formed by the UN is struggling for the human rights at international level.

Following the guidelines as laid down by the UDHR, National Human Rights Commission has conducted serial inspections of various mental hospitals and institutions, where the mental disabled are placed. Seminars and workshops conducted at National levels came out with the causes for the disabilities, according to them, Structural Adjustment programmers, and increasing conflicts with neighboring countries and ongoing sectarian violence on caste, ethicality and communal classes within the country have put the population of the country at the high risk of mental illness. Experiences from both industrialized and developing countries have revealed that the prevalence of common mental disorder is high among the urban low-income countries and women among them are more vulnerable.

Mentally Disabled Women and Human Rights

Approximately 300 million women across the world have mental and physical disabilities¹³. Women constitute 75% of the disabled people in low and middle-income countries and comprise 10% worldwide. Due to the gender bias in the allocation of the scarce resources and in access to services, women are more likely than men to become disabled during their life time. Mentally ill girls and women are less likely to receive medical attention than boys and men, particularly in developing countries, where medical care is considerably distant from home.

It is seen that disabled girls and women face the spectrum of human rights abuses than non-disabled women's face, it is said that, their social isolation and dependence magnifies these abuses and their consequences. Women fare less in the field of education, profession, financial and social success than non-disabled women and disabled male counter parts. In countries, law alertly discriminate against

disabled women and men, including by barring them from marrying, if they have any form of disability¹⁴. Further their sexual and reproductive rights are grossly abused.

Women with disability are forced to sterilization and abortion many times. They experience discriminatory attitude about their parenting abilities and denial of information about reproductive health and contraceptives. It could be very shocking to know that in Africa, there is a myth that having sex with virgin can cure a person of HIV/ AIDS. Women and girls with disabilities are targeted for rape, because they presumed to be asexual and thus they are virgins.

Although the abuses against women and girls are rampant, they are largely ignored. Justice system fails to accommodate disabilities for women to prove abuses of their human rights. Many civil societal groups and NGOs have mushroomed and have recognized the lack of insight and priority among policy makers and legislators to mental health concerns. They have taken- up the battle, generally, though in an unguided manner. Help lines, friendly and non-professional counseling is given to patients in need of professional health support. The government of India has come out with many programmes to rehabilitate abandoned disabled woman and girls by encouraging their adoption in families, support to house them and impart them training for gainful employment skills.

An Overview of Constitutional and Legal Framework for Differently-Abled In India

Our Constitution ensures equality, freedom, justice and dignity of all individuals and implicitly mandates an inclusive society for all including persons with disabilities. In the recent years, there have been vast and positive changes in the perception of the society towards persons with disabilities. It has been realized that a majority of persons with disabilities can lead a better quality of life if they have equal opportunities and effective access to rehabilitation measures. The preamble, the directive principles of state policy and the fundamental rights enshrined in the constitution, envisaged a very positive role for the state towards its disadvantaged citizens.

Under right to equality the constitution of India guarantees to all citizens' equality before law and equal protection of law¹⁵ and it prohibits discrimination on grounds of religion, race, caste, sex, and place of birth of any of them¹⁶. Article 41 declares that, the state shall within the limits of its economic capacity and development make effective provision for securing the right to work, to education and to public assistance in case of unemployment, old age, sickness and disablement. Article 46 lays down an obligation on the state 'to promote with special care the educational and economic interests of the weaker sections of the sections of the people, and protect them from social injustice and all forms of exploitation.

Right to Health

Is it the obligation of the state to safeguard the complete mental, physical and social well being of the people? What is the role of the private sector in rendering health service? Can the people demand the protection of health as an essential principle of human right with or without resources? In order to make 'the right to health' enforceable, it is included in many international treaties and conventions, National Constitution¹⁷ including the Constitution of India. The obligation of the member state is to secure and protect the right to health of the individuals, although international treaties and conventions concerned to make the right to health meaningful, it has been criticized that the WHO is not achievable and severely limit its practical impact. This criticism does not hold good, because under various constitutions of the states shall endeavour to protect the health irrespective of whether it posses adequate resources for the purpose. If the state fails to comply with this constitutional mandate, it would amount to infringement of the right to health of the individuals.

In 1995, WHO published a document entitled "promotion of the rights of patients in Europe; proceedings of a WHO consultation"¹⁸ which is significant modern piece of work on the health service provider and human rights of patients. It reflects from the above discussion that due attention is given to the patients' rights by the statues, constitutions, international declaration and instruments of the human rights. There is a paternalistic approach to the patient's rights in the light of development of human rights dimension. Human rights recognize patient's autonomy in choosing institutions, diagnosis and treatment, ethical and theological consideration besides recognizing the obligation of health service providers to respect the patient's autonomy.

The Government of India has enacted legislation for persons with disabilities viz:

- Persons with Disability (Equal opportunities, protection of rights and Full participation) Act, 1995, which provides for education, employment, creation of barrier free environment, social security etc.
- Rehabilitation Council of India Act, 1992 which deals with the development of manpower for providing rehabilitation services.
- National Trust for Welfare of Persons with Autism, Cerebral Palsy, Mental Retardation and Multiple Disability Act 1999 has provisions for legal guardianship of the four categories and creation of enabling environment for as much independent living as possible.
- The Disabilities Bill 2014 for the promotion and protection of basic human rights of the disabled persons and to provide them equality in all sphere's viz, social, economic, legal, cultural as well as political.

Even though the constitution of India guarantees the right to life with human dignity and equality to all its citizens; but its seems only a fantasy for these disabled people. The focus of the human rights agenda for the people with disabilities is not

so much to establish that disabled people have much human rights-Naturally, they do-but to enable them to access and take the advantage of those rights have been made impossible. Too often disabled people are excluded from mainstream of the society and denied equality, because of deep-rooted attitude of society.

Conclusion

Human Rights instrument around the world both at national and regional levels have made it very much clear that mental disability is definitely a human rights issue. Though the law at times does not discriminate but mentally disabled faces high rates of violation both at the hands of family members and as well as by societal members. Policy makers, insurance companies, health and labour policies and public at large-all discriminate between physical and mental problems. As a result, imperfections, lacunae, absurdities and discrimination galore have been detected in it. Experts clamor for the modification of the existing legislations and policies and to make sure that, these policies and laws are strictly enforced. Efforts to provide accurate support and right to mental health care cannot solely be left to anyone group alone, whether it is civil society or governmental. There is a need of both private as well as governmental initiative to input professional in the field of mental health programme. Collaboration between two and more expertise-oriented approach towards mental health has to be realized and this becomes a must in a society like where stigma and discrimination remains a barrier to mental health expertise teaching to those who are suffering from mental disorders.

Mental health policies, legislations, community care facilities and treatment for people with mental illness are not given the priority as they deserve.

There is also lack of awareness about disability rights across the country though; NGOs have done all efforts to promote awareness by translating the Act in simplified form in the local language so that people understand easily. There is also a need to ensure that the quality of life of people with disabilities is improved for which concentrated efforts are required to promote awareness in this direction.

It can be said that it is the high time to give a fair trial to the Mental Health Act of 1987, which has been enacted with the aim of creating conditions for the treatment of mental disorders by adopting modern methods and concepts in a milieu where human rights of the differently-abled individuals could be protected and promoted.

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The Government of India in Order to implement the directions of UDHR established National Human Rights Commission in the year 1994.

www.hrw.org/women/disabled/html. The Report prepared by the NHRC in the year 1999. In some European Countries, it is almost Impossible for the Disabled Women's to have the Custody of their Children and totally ban on the Disabled Woman to Adopt Childrens.

www.org/women/disbled/html/. Further, it is also Reported that Court will also not entertain the Allegation of Sexual Violence against these womens, because of supposed difficulties in finding the perpetrator.

See Article-14 of the Constitution of India.

See Article-15 and 16 of the Constitution of India.

See Universal Declaration of Human Rights 1948, and Article-25, International Covenant on Economic, Social, and Cultural Rights 1966, Article-12 Convention on the Right of the Child 1989, Convention on Human Rights on Bio-Medicine 1977.

See Article-70-D of Hungarian Constitution, Article-68 of the Polish Constitution, Article 27 of the South African Constitution, Article-32 of the Italian Constitution.

Missionary Approach: Towards Implementation of Life Skills

Manjeet Paintal

The missionary zeal is ancient and has been appreciated for the unconditional service rendered whenever communities needed help. They may be small in number but their spirit is abundant. Missionary always work with zeal may it be during war, health, education, illiteracy, poverty, rehabilitation or disaster. Missionaries exist almost in all religions and ethnic groups, the Christian Missionaries being the most recognized. According to Sharma (1988) The only problem with missionaries was that they wanted total surrender from the worldly affairs. Similar accounts of missionaries exist in homes where inmates with disabilities are nurtured, cared and rehabilitated. Abundant patience and profound devotion is what makes these homes heavenly.

Overview of the Missionary background

It is perceived in writings of the book 'Christians and Missionaries in India' edited by Robert Eric Frykenberg that Christianity in India is a concept which is perhaps Western, European, or very "Colonial". All though Christianity has been a non-Western religion and there are more Christians in "non-west" (Africa and Asia) than in the west. The word Christian pertains to faith and its relationship with the person at center of his belief. It can be assumed that a Christian is subordinate – to Jesus the Messiah (Christ) and to his commands. It is continuous, ongoing, and still unfinished work by God within the heart and mind of every person midst the culture of all human beings. This is an ongoing process for persons who have turned around or have been converted by an agency of God's spirit. They have been obliged to carry the message forward to the ones who have yet not received it. It embodies the great mandate of a Christian to commitment and obligation. Sharma (1988) explicates Mission and Missionaries by defining as Missions are "organized groups engaged in religious proselytism as a vocation". Missionaries "...are by derivation of the word men that are sent (lat mission) word apostles has the same meaning (Greek Apostolic)". Thus, the word refers to individuals sent out by the mission to other lands.

Spread of Mission

The spread of organized mission faith was initiated in Christianity and effort to spread in the world has been foreseen. Christianity spread from Western Asia to China between the 1st to the 14th century AD, and further to Eastern-Asia from the

16th century with the European Age of Discovery. Missions have done exemplary work in health and welfare. Sharma (1988) the act of 1813, which permitted missionary work in India, made provisions. Thus, in bringing remarkable social changes in the country by directly working with the backward classes. They acted as striking stimulants for the urge to change from within. The Arya Samaj and the Ramakrishna Mission movement cannot be ignored in their contributions towards social change in society. Though, Christianity and Islam have been only two religious missionaries with universal outlook. Koji (1988) reveals that Macaulay undoubtedly played major role in spreading Christianity in India. Equally true that the social, economical and political changes which occurred in the second half of nineteenth century were more wide spread and deeper than those previously experienced. All castes and communities participated in the movements and every movement demanded right to education something, which had been impossible in the past. Historian Webster (2012) maps Christianity in Indian social history way back to Kerala and Tamil Nadu in fourth century devoted to Thomas the original disciple of Jesus. After 1510 under the Portuguese crown, patronage, Roman Christianity spread from Goa along the Southern and the Western coasts ever inland in the south and to Mughal courts in north. The first Protestants mission was in Danish colony at Tranquebar in Tamil Nadu in 1706. The second at Serampore Danish Colony in West Bengal in 1800. Once the British East India Company allowed missions into their territories in 1813-1833 Christianity spread in India from Calcutta, Bombay, and Madras. Today 24 million Christians live in southern states of Kerala, Tamil Nadu, Andhra Pradesh, Karnataka and Goa but largest are in North-Eastern states of Mizoram, Nagaland and Meghalaya, 87 percent, 82.6 percent and 70.3 percent respectively of the population. Christianity in India helps to shape, reshape and heal the real inherited identities of Christians in India. Shourie (1994) applauds Indian philosophers Swami Vivekananda and Gandhi Ji for practicing sustainable missionaries' reforms. The mission Encyclopedia mentions International missionaries' conferences, which are regularly held to coordinate and share the missionaries' message and activities around the world. The faith in missionary is mostly personal and can lead to amplified arena of life skill at any stage or age in life. The link between the faith and skills can bring further transformation in many lives. Adaptation of veracious life skills can attain transformations. Using them at the right time and place by practicing missionary approach.

Adaptation of Life Skills

Life skills are seen closely as adaptivity of emotional skills, social skills and the physiological as well as psychological changes an individual undergoes throughout his/her life. The self-management measures one takes to adjust to the surroundings are life skills. We mostly see disabled persons throughout the world living in communities where daily life is often a losing struggle to meet individual physical needs. When an average, able-bodied person can barely satisfy ones own need for food and shelter, love and care, life is much harder for disabled persons. Although

WHO emphasizes on the ten core life skills self-awareness, empathy, critical thinking, creative thinking, decision making, problem solving, effective communication, interpersonal relationships, coping with stress and coping with emotion, it's difficult to say that these skills can be mastered or perfected. On the face of it we can definitely assume that all skills cannot be adapted in case of individuals with physical and psychological problems at birth or developed later in life. The challenges may vary according to the levels of difficulties. Though these persons can be assisted and supported to overcome their individual problems the adverse effects usually remain. Life skills of those assisting them or caring for them could play effectively in restoring their self-confidence. There are homes and one such home has been of Mother Teresa in Kolkata, West Bengal a home where all round care is given. People from all over the world volunteer to work and feel it's a blessing to work in homes. e.g. Sam Ballou Volunteer says that "I Thirst" These two words said by our Lord Jesus as he hung upon the cross defines my experience serving the poorest of the poor along side with the Missionaries of Charity. It is this infinite thirst that we seek to quench in every small act of love we give to the poor.

I am grateful to God for this time that I have been blessed with, here in Kolkata. In every difficult moment, God's grace is always there to help get through the trial, no matter what situation we may find ourselves in. God's Love and Mercy is very much alive and at work here. In each of the Sisters, Brothers and Fathers smile, the love of Jesus is radiated throughout the world.

Management and Rehabilitation

Any community development programmes whether rural or urban exhibits negligible attention to setting up of rehabilitation homes and those that are set up usually have unfriendly infrastructure. For millions of families in severe poverty, the birth of a disabled child or an illness or accident resulting in serious impairment places, them in a worse position than the others in their community. Not only does the additional expense add to their agony, there is no likelihood that this new child will bring any upswing in the family's fortunes. Therefore, even the best planned and executed rehabilitation program will do little more than restore them to a position between hunger and malnutrition with chronic illness, unhappiness and debt. Participation in a rehabilitation program will have only one certain effect: the rest of the village or neighborhood will know for sure that this family has a disabled member, something which they may have been at pains to conceal. Having this in mind that Missionaries are in a way messenger of God to help poor and the disabled.

Mission and adaptation of life skills is what is required to do the unfinished job of God sent challenged persons. Sometimes missionary homes are the only hope and when they are in groups it adds to the responsibilities of the management of the Institute. The limited resources and specialization at their end are a constraint to carry on the processes of rehabilitation and inclusive education up to the given standards.

Implementation

The Regional Resource Centre (RRC) at Panjab University established as one of the State Resource Centres to give impetus to Literacy programmes in the country under the aegis of National Literacy Mission, Ministry of Human Resource Development. (RRC later converted into a teaching department of community Education and Disability Studies by the Panjab University) RRC was involved in imparting training to the literacy volunteers and to the key functionaries in the area and had close association with the missionary organizations established in the region. It was felt and expressed by the management of the organizations that there was need for developing a capacity building programme with operational life skills for key Missionary functionaries in order to bring about awareness of the management issues of the wards and residents with disabilities. Though ideally missionaries like to function and operate in independently and are hesitant to openly share the problems faced in their respective hostels, in this case their faith in the organization allowed a collaborative approach. A training programme was planned on an experimental basis and designed keeping in mind the need of the community. It covered the representatives of the selected organizations in the neighborhood. Senior and experienced experts were involved in the exercise and responses were taken in a confidential manner.

Special Objectives of the In-house Training

1. To orient the functionaries to take up special need based programmes for the inhabitants of the hostels.
2. To equip the functionaries with the process of rehabilitation.
3. To build capacity among wardens on life skills and communication.
4. To acquaint them with the possible ways of inclusive education.
5. To familiarize them with the complex problems faced by adolescents.
6. To stimulate in them creative techniques for indoor teaching.
7. To help build sharing, cooperation among inhabitants and value coexistence.
8. To initiate process of convergence of resources for development.

Design

An Interstate Training programme for key missionary functionaries was organized by the Regional Resource Centre cum Department of Community Education, Panjab University for the missionary representatives from Amritsar, Jammu, Ludhiana, Ferozpur, Jalandhar, Ambala, Panipat. Participants also included those who had worked in missionary homes in Andhra Pradesh, Calcutta, Delhi, Punjab, Bihar and U.P. A qualitative approach to data collection was applied since it gives voice and evidence by narration of facts by individuals, to be applied later on by other groups. The thrust of the study was to analyze the gathered information and break it into valid and reliable that could be followed in future. The study attempted to examine the ways in which to deal with the existing psychosocial manifestations as well as the shortcomings and drawbacks in communities. The responses revealed that valuable

services could be provided to the inmates and organizations to bring together a healthy society. The benefit of having missionaries engaged in social service in society should be widely spread. This was the ultimate hallmark attempt of the study.

Sample

All the participants were females, belonging to various setups including a missionary home located in Chandigarh. The average age of the participants was around 44 years and the average qualification was matriculation. All participants have been looking after the inmates who are challenged physically, mentally, emotionally and economically. The three-day orientation by experts covered topics of population education, communicable diseases, community development, environment protection, provisions for the education at different levels, resource support available, management of inmates, sharing of experiences, how to bring inmates to the mainstream. The training also covered ways of integration of approaches to meet specific requirements. An unstructured questionnaire was developed to collect facts regarding knowledge, area of working, previous experience, understanding of problems faced by the inmates and the organizations. Information was collected to study the impression of the training randomly. Inferences have been drawn from open and random responses.

Observations, Interpretations and conclusions

The participants have basic qualifications but no specific training for the task that they were assigned. The philosophy being that the missionary spirit covered the gaps, which sometimes overlooks specific needs in training. The participants have referred to the importance of training, given the challenges faced by the inhabitants. The different kinds of disabilities related to physical, emotional, social and economic areas are not measurable but are to be understood and felt. Psychological, physiological and philosophical factors play dominant role in solving these related problems. The respondents stated that insecurities, rejections in society, hurts, and social abuse and self-torture are some of the causes of distress. They are not aware of their actions and sometimes take extreme steps to harm themselves. They have to be protected, watched and sympathized with to avoid critical situations. The multiple reasons and complex nature of problems raises difficult situations for the attendants. There emerged a definite need for the staff to be better equipped to manage the day-to-day problems. Cases like homo-sexuality, and the licentious behavior of inhabitants as early as puberty need different kind of channelization of energies. The clinical help and treatment have to be monitored daily. The care through clinical interventions helps them in physical therapy, counseling and love cures their emotional needs. Self penance and fits of ire by inmates are a common sight in homes. Life skills play a paramount role in the whole situation; the life skill culture is to be cultivated and implemented in all situations. The all-round conduct matters in construction of the required discipline. It is evident that the mission staff has to be selected, sensitized and trained accordingly. The handling of this elusive and ignored sect of society

plays a major role in bringing them to the mainstream of health, education and employment. The organizations/homes involved in these activities of resettlement, rehabilitation, and inclusive education play a vital role with their sympathetic, dedicated philosophy and ideology of mission. Further these should be left not only for missionaries to perform, but ordinary members of the community could also look forward to participating in this endeavor of selfless service. The commissions for protection of child rights and ministry of social justice could also be involved by way of providing training and support. No doubt, the missionaries would continue to work with compassion and dedication. They should be provided with financial aid and other support irrespective of the culture they belong to.

The figures show that very little is being done to synergies the need of disabled to enable them to be independent and merge in the mainstream of life, may be progressive training to rehabilitate the challenged is possible at the National and State level.

The recent updates of cooperation like the Christian Missionary Alliance 2016 and the American Association could work as dynamic platforms to train functionaries in a missionary way to empower the respective organizations.

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'Rethinking Education: Towards a Global Common Good' Paris: UNESCO (2015). pp 84.

Reviewed by Arne Stenzel, Julius Maximilians University, Wurzburg

The recent UNESCO publication on *Rethinking Education: Towards a global common good* is about the new roles, functions, institutions, applications and normative perceptions of education, learning and knowledge in an accelerated globalizing world. It states that since the Delors report progress has been made especially towards basic education, there are still lots of problems in the world not only in developing countries but also in fully industrialized countries. Besides, new problems and challenges have occurred or that old ones have intensified.

This publication responds to several conflicts and tensions created by globalization and its increasing complexities regarding different aspects and the effects on education and pedagogy. These conflicts range from climate changes to socio-economic developments as well as to the narrowing gap of the private and the public sectors of education. One of the main thesis of this publication states that in future there will be more international institutions controlling and providing quality education. These institutions will acquire central tasks like monitoring, raising awareness; publish data as well as providing a set of normative and professional or practical guidelines and templates. Maybe even more important might be the coordination of these tasks on an international level as it involves states and other stakeholders like non-profit organizations, civil societies and private corporations. It is argued by the authors that a variety of stakeholders will inevitably have different normative and practical approaches, goals, and strategies to implement their concept of education, learning and knowledge. These different approaches must be held together by humanistic and universal values which can be compared to the function of the human rights.

It is vital to the report that the four main pillars of education of the Delors report are still an important topic in today's world but that some implications of them must be reconsidered because new challenges and threats came up in the 21st Century through various global developments. Especially the still remaining poverty, high rates of low-employment, cultural hate and discrimination, terrorism and the furthering gap between rich and poor people are main concerns that we must deal with. These problems cannot be fought on local level or by single states. But also, the trends of digitalization, neurosciences and improved access to information and knowledge required to reconsider for example the pillar of 'Learning to know' since transferable, soft and non-cognitive skills gain more relevance. Howsoever these threats are interpreted and estimated, the authors examine that organized education is necessary to fight them and improve the conditions people are living in. Following this premise, it gets

clear that the forms and contents of an updated education cannot be implemented well without taking a stance and without being geared to these current processes.

The authors try to elaborate that education must be marked as global common good in contrast to a national public good. They underline that learning which they define as 'the process of acquiring such knowledge. It is both a *process* and the *result* of that process; a means, as well as an end; an individual practice as well as a collective endeavor' (p. 16) will change rapidly because of different developments regarding the increasingly linked and networked world, digital and technological developments and inventions and a changing concept of local and global connectedness. Especially the new focus of social learning has to be remarked. The authors explain that different dimensions like cultural, political, economic, social and civil topics should not be singled out. Instead all these dimensions have to be considered and not for example only the economic dimension which often seems to be the most relevant dimension for arguments and requests when it comes to the debate of education and learning.

As well, knowledge and education will change. Knowledge is defined 'as the way in which individuals and societies apply meaning to experience. It can therefore be seen broadly as the information, understanding, skills, values and attitudes acquired through learning. As such, knowledge is linked inextricably to the cultural, social, environmental and institutional contexts in which it is created and reproduced.' (p.16). Knowledge is not reduced to exploitable and usable abilities. The authors try to make clear that their main focus is also the wellbeing of the person as much as the persons' abilities to be able to participate in several processes that are going on in the world. The persons should not only be able to adapt to the world he or she should also be able to implement his own potential, creativity and ideas onto the world as each single individual must be valued.

Finally education is defined as 'learning that is deliberate, intentional, purposeful and organized. Formal and non-formal educational opportunities suppose a certain degree of institutionalization.' (p.17). One of the questions with regard to the fact that a big part of learning that each individual processes does not take place in corresponding institutions and extra learning environments. The authors argue that non-formal and even informal processes of learning should be more considered by organizations.

Defining education, learning and knowledge as a global common good offers a lot of options for future handling of these topics on both national and international level. The effects of this new perspective concerns basic education as much as secondary, tertiary and post-secondary education. Especially basic education has to remain mostly controlled by the states and nations whereas other and more advanced forms of education will be more and more controlled by private stakeholders and international organizations and networks. But both kinds of education must be monitored and

researched on international level and international organizations should implement a few general normative guidelines according to humanistic and universal values.

It is important that the role of the actual teachers' and pedagogues' changes in direction to a more fluent role that is not strictly restricted to transfer knowledge unilaterally. The teachers have to be facilitators of learning because one of the main changes in an interconnected and digitalized world is that people have access to information and knowledge through the internet anyways. Therefore teachers have to be more creative and use new forms of technology so that they can make use of the wide range of possibilities to execute their task more effectively. The teacher is not someone who stands above the child. Instead, the authors suggest approaches formulated by Paulo Freire.

The authors favor a holistic and humanistic approach although they mention that especially the term 'humanism' has different connotations which make it hard to find a single concept that comprises all implications associated with that term. Furthermore, this approach is difficult to practice as it implicates the attempt to allow cultural diversity and as many perspectives as possible to form the discourse thus it makes it very difficult to find agreements and consensus that will implicate the interests and worldviews of each participant. Despite this difficulty, it is remarked by the authors that this is also an opportunity to learn from each other as for example some rural perspectives on nature might be helpful to create a healthy attitude towards our nature which then could help to reduce ecological damages and prevent catastrophic climate changes.

In my opinion the authors name many important topics and processes of the modern world which are very convincingly referred to educational regards. Also, they don't limit themselves to narrow and simple descriptions in favor of a specific way of treating these challenges. Instead they offer a variety of ideas and proposals to deal with certain processes and they also mark the critical aspects of single developments. It is obvious that it is not easy for them to form an opinion for example regarding the increasing privatization of education as they mention positive and negative consequences. They always try to contextualize their demands and arguments.

However, it seems like the UNESCO and equivalent organizations will have a pioneering task when it comes to the normative core values of education. For me it's very important that no single stakeholder may have the power to enforce its demands onto other organizations that do not agree with them, especially if the national sovereignty is at risk. The privatization of education might lead to even further discrepancy of rich people who can afford much higher quality of education than poor people who only can join the minimum offers. On the other hand, interpreting education as a global common good seems to be an important step in future scenarios to provide quality education to everyone as this concept compels responsibility and obligations to each stakeholder that offers opportunities for learning and acquiring knowledge. The main problem for all of this seems to be the combination of economic,

UNESCO (2016). *3rd Global Report on Adult Learning and Education. The impact of Adult Learning and Education on Health and Well-being; Employment and Labour Market; and Social, Civic and Community Life. Hamburg, EU: UNESCO Institute for Lifelong Learning. 154 pp.*

Reviewed by: Nicoletta Tomei, Ph.D. Scholar, Julius Maximilian University Würzburg, EU

The *3rd Global Report on Adult Learning and Education* (GRALE III) is a text that provides analysts, policymakers, stakeholders and researchers from the different UN Member States a valuable tool to advance the new global agenda of Adult Learning and Education. The publication of GRALE III is an international community effort primarily undertaken by UNESCO Institute of Lifelong Learning and UNESCO Institute for Statistics. 139 Member States contributed with their answers to monitor and report on countries' implementation of the Belém Framework for Action adopted by the 6th International Conference on Adult Education (CONFINTEA VI).

Since the 2030 Agenda for Sustainable Development and the Education 2030 Framework for Action give to ALE "unprecedented global potential as a tool for progress" (p.133), the report is also a call for discussion which helps ALE community to look head to the Mid-Term Review of CONFINTEA VI in 2017.

The effort of making the case for ALE drives the contents of the book. The text brings together the latest data, policy analysis and case studies to show how ALE can contribute to different important domains and identifies major challenges and major global trends' implications for it.

By claiming that even the "definitions of ALE vary widely, depending on the immediate needs, priorities and contexts" of different countries the authors clearly place data-gathering at the centre of this discussion (p.29). For example, with the significant exception of the area of action of policy, the issue recurs as pivotal through the considerations devoted to the results of the monitoring survey in ALE governance, financing, participation, equity and quality. At the end of the first part, the reader is asked to evaluate the benefits on this respect of the same cross-sectoral approach which is used to assess the impact of ALE beyond education sector (health, employment, community life).

Each chapter of the second part provides arguments for governments, the private sector and individuals to invest in ALE, echoing the leitmotiv of the *First Global Report on Adult Learning and Education*- designed to inform discussions at

CONFINTEA VI in 2009. Adult literacy and gender equality, identified as main challenges, can in fact hardly be achieved if "one on three country spend less than 1% of their education budget on ALE" (p.135). In this respect, there is clearly a strong statement in favour of a greater balance in investments within the education sector itself but also for more balanced investments among different sectors of ALE. Since "learning is increasingly taking place outside the formal sector" (p.135) governments are encouraged to support practices of recognition, validation and accreditation of prior learning. These are in fact recognized not only as an important tool for fostering inclusion and equity by motivating marginalised individuals to participate in ALE, but also as a relevant area for experimenting inter-sectoral coherence in policies, stronger partner's coordination and new legal and financial arrangements.

The final part of the report, designed to provide some guidelines "to the readers in their effort to promote and improve the state of ALE around the world" (p. 121) focuses on six dominant trends. Even though some of them recall some of the above-mentioned issues, the text introduces also new perspectives on the challenges that ALE has to face in the next decades. Since "between 2015 and 2030, the global number of people aged 65 or over will double to 1 billion" (p.126), the authors underline the importance of assessing learning needs and learning potentials at different ages and stages of life as well as the role that ALE can have in the achievement of Sustainable Development Goals. Issues such as internet accessibility and ICT skills' acquisition are discussed and linked to the Goal's 4 substantive targets which aim to ensure and promote lifelong learning opportunities for all. Stressing that the Millennium Development Goals remained silent about the role of ALE, the text refers to the *Recommendation on Adult Learning and Education* (2015) in order to point out that new commitments identify literacy, continuing training and professional development and active citizenship as the three main domains in which advancements can be expected.

While all the chapters are interesting from the perspectives of policymakers, chapter 4, 'Social, Civic and Community life' has a special place according to researchers' perspective. It contributes in fact to highlight the benefits of ALE for a sector that has received relatively little attention compared to those in others sectors. Evidence of the positive impact of ALE on community and society reveals that, even if it cannot be assumed that there is a linear path from better education to better participation in community life, it is possible to see some correlations between education and the ability to positively live in diversity and to mobilize social capital. Skills acquisition, cultural learning and the development of 'moral emotions', which are usually considered "almost ubiquitous" (p.110) outcomes of ALE interventions, are in fact claimed as important drivers for social cohesion and community participation. The authors offer, in this respect, a series of considerations that highlight the importance of valuing ALE as a fundamental societal asset. Even if governments tend, usually, to focus on more visible and more easily measurable benefits, research can contribute to enlarge the knowledge base of ALE tackling the mild amount of evidence about intangible

community outcomes. Taking the advantage offered by the 2030 Agenda for Sustainable Development which calls to address environmental protection and fairer redistribution of socio-economic benefits, the text strengthens the ethical dimension of ALE. Research, in this respect, should continue to yield results in promising areas, such as community based learning, under the framework created by global institutions to building a global network of learning cities.

The strength of the 3rd Global Report on Adult Learning and Education is its richness and its comprehensive review of adult learning. It succinctly explores the field integrating theoretical references, evidence from monitoring, research and practice and contemporary trends and challenges. While a comprehensive international work on adult learning and education is rather ambitious, UNESCO Institute of Lifelong Learning and its partners pull it off declaring that "GRALE does not attempt to identify a single model of best practice in ALE" (p.138), but recognizes that each country has its own development trajectory which can be enhanced by the rich collection of information and data that GRALE III presents.

As a Ph.D. student, I found the book to be interesting and useful as a framework for my future research. I deeply appreciated the effort to relate its contents to other important documents in the field of ALE. A cross reading of them has in fact helped me to contextualise changes in ALE through the lens of a conceptual broad approach.

GRALE I, which explores the development of the concept of LLL, identifies in the spread of human capital theories the most important reason for the introduction of Adult learning policies as a means of economic development during the 60's. This introduction, challenging already existing community-based, political and cultural traditions of adult education in different countries, leads to consider the outcomes of learning primarily in terms of use value and results in a landscape where mixed principles, policies and practices co-exist.

The need of repositioning adult education within lifelong learning, clearly stated by GRALE I, still characterises the final recommendation of GRALE II. The 2013 report stresses in fact that the lack of shared understanding of adult learning has led to great imbalance among policy discourse, with the north countries concentrating on the operationalisation of the discourse of lifelong learning and the south countries, focusing on basic education for all. Alongside this, the lack of clarity has not only resulted in a tendency to continue to prioritise primary education but has also resulted in a division of the adult education in different fields in which actors emphasises different principles, purposes and practices rather than establishing inter-sectoral connections, alliances and partnerships.

In this respect, GRALE III seems finally to reflect a "move towards a more holistic view of education and lifelong learning" (p.22) and a shift from an almost exclusive interest in economic competitiveness focus to a broader human capability horizon

which values ALE as a powerful tool for people emancipation, countries enhancement and world empowerment.

In my opinion, this vision therefore requires not only a shared philosophy of the purposes and benefits of adult learning and education but also a full engagement in international cooperation. Unfortunately, this important area of action remains utterly implicit throughout the text of GRALE III. The authors in fact seem to be more interested in the establishment of structural mechanisms for monitoring ALE in different countries than in fostering an international cooperation which not merely involves the sharing of information on structures, curricula, methods and techniques originated all over the world. The reduced relevance assigned to this aspect surprises even more if the reader considers that the number of UN Member States which participates in crafting the report has continuously decreased since the issue of GRALE I, which stresses it quite clearly (p.121).

To not take this as signal of groundwater and unforeseen changes in the global agenda of ALE, I highly recommend reading GRALE III under the broader framework of UNESCO activities. The 2030 Agenda for Sustainable Development, with its interest in revitalizing the global partnership for sustainable development, makes in fact a strong statement in favour of mutual cooperative assistance in each other's capacity building, and echoes the *Recommendation on Adult Learning and Education* (2015) which encourages South-South, North-South and triangular cooperation in order to make quality adult learning opportunities globally available and to help adults to take full advantages of such opportunities.

Our Contributors

Dr. Nasreen Rustomfram, Professor and Chairperson, Centre for Lifelong Learning, Tata Institute of Social Sciences, V.N. Purav Marg, Deonar, Mumbai, Maharashtra - 400 088 [e-mail: nasreen_r@tiss.edu]

Prof. (Dr) Sunil Sharma, Dean, Indian Spinal Injuries Centre, Opp. Vasant Valley School, Sector-C, Vasant Kunj, New Delhi – 110 070

Smt. Nishat Farooq (former Director, State Resource Centre, Jamia Millia Islamia, New Delhi) [e-mail: nishatfarooq@gmail.com]

Res: J – 346, Sarita Vihar, New Delhi – 110 076

Dr. Asha Patil, Associate Professor, Department of Continuing & Adult Education, S.N.D.T. Women's University, Churchgate, Mumbai, Maharashtra-400 020 [e-mail: drpatilasha@gmail.com]

Shri Deepak Goswami, Department of Adult Continuing Education and Extension, Faculty of Social Sciences, University of Delhi, Delhi – 110 006. [e-mail: deepak.goswami8118@gmail.com]

Dr. Vandana Sisodia, Assistant Professor, Department of Adult Continuing Education and Extension, Faculty of Social Sciences, University of Delhi, Delhi – 110 006 [e-mail: vandana.sisodia@gmail.com]

Shri Sudip Bhattacharya, Research Scholar, Department of Lifelong Learning and Extension, University of Kalyani, Kalyani, Nadia, West Bengal-741 235 [e-mail: sudip060279@gmail.com]

Dr. Prasenjit Deb, Professor & Head, Department of Lifelong Learning & Extension, University of Kalyani, Kalyani, Nadia, West Bengal-741 235. [e-mail: drprasenjitdeb@gmail.com]

Ms. Asma, SRF- Scholar in the Department of Education, Kumaun University, Sleepy Hollow, Nainital, Uttarakhand- 263 001 [e-mail: ashu198855@gmail.com, aasma0022@gmail.com]

Shri Farooq Ahmad, Research Scholar In The Department of Political Science, Kumaun University, Sleepy Hollow, Nainital, Uttarakhand 263001 [e-mail: farooqmajeed19@gmail.com]

Dr. Anuradha Sharma, Associate Professor, Department of Community Education and Disability Studies, Panjab University, Sector 14, Chandigarh - 160 014
[e-mail: anujay_28@yahoo.co.in]

Ms. Navreet Kaur, Student, Department of Community Education and Disability Studies, Panjab University, Sector 14, Chandigarh-160 014.

Dr. Dazy Zarabi, Assistant Professor, Department of Community Education and Disability Studies, Panjab University, Sector 14, Chandigarh -160 014
[e-mail: dazyzarabi@yahoo.co.in]

Dr. Shalini Sharma, Advocate, 523, Govind Puri, PO Model Town, Yamuna Nagar, Haryana-135 001. [e-mail: shalinisharmasood@gmail.com]

Prof. Manjeet Paintal, Department of Community Education and Disability Studies, Panjab University, Chandigarh - 160 014
[e-mail: manjeet_51@hotmail.com]

Arne Stenzel, Student, Master's Programme in Adult and Lifelong Education, Julius Macmillan University, Wurzburg, Germany

Ms. Nicoletta Tomei, Student, Master's Programme in Adult and Lifelong Education, Julius Macmillan University, Wurzburg, Germany

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As soon as Mr. Donald Trump assumed office of the President of the United States of America in his first announcement he said that America is for Americans first. This created tremors all over the world and particularly the developing countries. The tremor was felt in India also. Unfortunately, misleading news items started pouring in most of the mass media stating that all Indians who are working in America will be deported leading to large number of unemployment. Fortunately, some positive thinking people started writing that the situation is not that grave and may not affect those who are in job in the immediate future. Whatever may be it is better to give some thought to the new announcements coming from America.

The announcement made by President Trump is his government's new policy and new initiatives which one must appreciate for thinking of the welfare of his countrymen. This is not the first time the head of the government takes such initiatives. When Prime Minister Narendra Modi gave his first address to the nation, he has announced a number of policies like 'Make in India' and 'Skilling India' under which he wanted everything produced in our country for domestic consumption and export and trained workforce for both the domestic industries and for the industries abroad. This announcement was welcomed by most of the countries as epoch making initiative. They did not say that India should continue to import things manufactured in other countries instead of producing domestically. The same way none expressed anguish about the trained workforce of India which may stone wall the employment opportunities for the local people.

Indian workforce is hired by both foreign companies and Indian companies abroad not because it is a cheap labour but also its technical and vocational capabilities. Hence, it is not that easy for the companies to replace the entire Indian workforce overnight as they may not be able to find suitable hands and also in adequate number immediately. Some people are also more worried about H-1B Visas. But Vishal Sikka, CEO, Infosys does not think so. He says that the employers do not depend on H-1B Visas as in the last 10 years there were around 65,000 H-1B Visas granted every year which means in the last 10 years it was 6,50,000. But the Indian companies collectively employed millions of people. According to him it has always been about delivering value and not obtaining H-1B Visas.

However, it is true that unemployment is slightly increasing even after many forward looking policy initiatives taken by the government. One must know both the negative impact of growing unemployment and also the reasons for such a situation.

India must be careful as jobless growth can lead to social unrest. According to Arun Maira, the former India Chairman of Boston Consulting Group lack of adequate employment opportunities may be the reason behind the agitations happened recently

in Maharashtra and Gujarat. He said that the growth of the country should not be measured by GDP alone, but by the quality of jobs, livelihood and jobs that are created.

According to experts lack of jobs is not just one challenge for India. Increasing automation will also take away many existing jobs. The situation is more aggravated because of the level of literacy and poor skill. The gap between number of jobs created and job required has widened despite strong GDP growth. Every year 10-12 million young people join the labour force and 5 million people leave agriculture to join the non-agriculture sectors. Thus there exists a total demand of 17-20 million new jobs per annum. According to NITI Aayog member Bibek Devroy a dramatic rise in voluntary unemployment across the country where people choose not to work below a certain income level after investing in education. Above all a million plus students graduate from India's engineering colleges every year, but less than a quarter of them are found to be employable.

Arvind Subramanian, Chief Economic Advisor says that India's current employment challenge is difficult as sectors that did well in generating jobs in the country's previous economic boom years – IT, construction and agriculture are in trouble now. Hence, Indian economy needs to clock 8% to 10% growth for greater job creation. He also said that IT sector thought to be always a dynamic sector for India is now the new problem. With the automation becoming a way of life in most companies and Analytics Artificial Intelligence becoming a reality, the Application Business and Development part of the business is under threat as it requires an entirely different set of skills.

According to Rajesh Mahapatra, Professor, National Institute of Public Finance and Policy 'Skill India Plan' seeks to train 400 million workers in the age group of 15-45 years over a 7 year period. The outcome so far has been disappointing. Out of 1.8 million people who received training in the first two years of this programme, only a third could be certified and less than 82,000 people were placed in jobs. The reason for this dismal show is no amount of skill development can work without a solid foundation in basic education. India's long neglect of the education system is coming back to haunt its economic ambitions.

All these show that government needs to revisit the policy initiatives taken so that the situation got aggravated today does not stay for long. India has withered a number of problems and this may not be a big one to tackle. Also a large investment in quality education is the need of the hour.

Dr. V.Mohankumar

Freirean Approach in Analyzing Teaching-Learning in Indian Higher Education - A Theoretical Discourse

Sayantan Mandal

Higher education in the world in general and in the developing countries in particular is under tremendous pressure to grow and respond to the demands of the fast changing market and metamorphosing societies. India, one of the fastest growing higher education systems, is no exception. The 'race to the top' is the new mantra for the universities and other higher education institutions of the nation. This constant pressure of expansion and excellence has highlighted several reform areas (Varghese, 2015) and one of them is to improve teaching-learning, which resides at the core of any educational system.

Teaching-learning in Indian higher education is however, following a traditional path for so long (Mandal, 2016; British Council, 2014) with some handful of exceptions. The model of 'input (as information oriented teaching) and output (as students' examination scores based on standardized tests) is still dominating the practices without much focus on the actual process. The teacher usually takes the authoritative role and a provider of the information (as knowledge) in the form of monologue to the students. The students, on the other hand play a passive role of knowledge receivers. In this process the power lies within the teacher where the students perceive the authority of the teacher, almost as taken for granted. Interestingly, the recent top-down thrust on 'student centered learning', 'outcome oriented teaching', 'competence development' and so on, have brought significant pressure on the teachers where they have become the passive receiver of these mandates, without much idea on how to implement them. Nevertheless, in this reduced teaching autonomy, pressure to perform and bring tangible outputs mixed with new audit culture of constant surveillance (Taubman, 2009) teachers have also begun to see themselves as oppressed and a normative tool of education system.

At this juncture, the Freirean ideology seems capable of analyzing the discourse from two distinct yet interconnected perspectives. First, the neo complex power dynamics between the oppressors and the oppressed which should be contextualized in the changing role of the teacher-student and institution. Second, to understand the changing notion of teaching-learning where he focuses on the process, rather than on the outcome, influencing in remodeling the traditional role of a teacher and student and the practice as well.

This paper therefore takes an analytical stance towards the changing notion of teaching-learning in higher education, which also involves the shifts in power dynamics and tries to understand the following. Primarily, it attempts to explore some of the

major shifts in the teaching-learning practices in Indian higher education. Secondly, how are these changes impacting the traditional teacher-student-administration (including the government and governing agencies) relations, where the power-dynamics is becoming a mosaic rather than a linear one. In this discussion, it brings the ideas and analytical arguments of Paulo Freire (1970, 1985, 2005, 2006) and tries to explain why the Freirean approach to teaching-learning is worth considering in the changing context of higher education which is at the verge of overhauling.

The paper therefore mainly focuses on the issue of higher education teaching-learning, confined mostly in the formal sphere of education with the theoretical lens of Freire, which is widely considered to explain non-formal and adult learning. This effort however recognizes the invaluable contributions by other scholars in the area of formal teaching-learning, but delimits the main discussion to explain Freirean perspectives and its relevance in this regard.

This paper lays out issues as follows. Section I provides an overview of teaching-learning and the classroom interactions based on scholarly works and empirical evidences. Section II is focused on the changing power dynamics and linking the discussion of section I. The main analysis is done in the Section III where the paper critically explores the theoretical understandings, where Freire's approach is discussed along with glimpse of other relevant theoretical frameworks pertinent to the discourse. The concluding section reviews the main findings of the paper and highlights the relevance of Freire's theory in analyzing contemporary issues of teaching-learning in Indian higher education.

Section I: Teaching-Learning in Indian Higher Education

To examine the issue of teaching-learning in Indian higher education, this section tries to discuss it from two standpoints. One, it briefly mentions the defaming of the teaching profession in post independent India and its impact on the teachers and second, how does that influences teaching in a regular classroom of a college or university. These help us to understand the power dynamics between the teachers and administration and between teachers and students.

Defaming the teaching profession

Teachers, since the age of the *gurus* got a high regard in the society for their noble profession of educating and enlightening (Jayaram, 2002). However, over time, with the social stratification, teaching became confined to the elite classes only. The situation did not change during the British colonization period either, where the main focus of higher education was to create a pool of elite educated workforce for the colonizers, not to bring enlighten in the mass (Mathew, 2016).

In the post independence period, the Radhakrishnan Commission (1948-49), clearly defined the role of a teacher. As per the report, a teacher has to stimulate the spirit of enquiry and of criticism. It put the highest value for teachers who should not be measured in term of mere performance. The commission was in fact very concerned, when it found that mass lecture is most common in the institutions and not supplemented by any regular work by students in the library post lecture (Mathew, 2016). This prevents students from developing their own arguments, power of judgments as they are taught depending on the book alone. The commission therefore suggested that there should not be any prescribed textbook at college and universities to prevent teaching from focusing only to pass the exam. However, nothing much progress has happened in the next twenty years (NCERT, 1971 in Mathew, 2016).

Later in the 60s, due to the structurization of university and colleges, bureaucratization was introduced. The affiliating university system, large and complicated university administration further reduced the academic freedom. This in turn created a hierarchy and politicization, where new power dynamics lead the teachers, especially college teachers to rely on a long chain of commands. These institutions often do not exercise enough freedom in terms of designing or modifying the curricula, course structure and evaluation systems. The universities with more number of affiliated colleges imposed more centralized forms of administration, which made the system more standardized and less unique. It also meant that the university assumed all the control, leaving very less room for individual institutes to experiment and innovate. Further bureaucratization created a less flexible administration, mostly at the lower tier, which in turn hindered the smooth and flexible function of the academia. And in this process, rather similar to the industrial top down management, teacher became a mere component of the bigger system, largely following mandates of the higher order. This also means that teachers are less prone to take innovative steps and go beyond what is prescribed. This negatively impacted the motivation of the teachers.

Teaching and learning today through classroom observations

The loss of academic freedom created a teaching-learning culture, which turned the higher education institutions into a place of repetitive teaching, often following textbooks recommended by the authorities. The recent national level study by the Centre for Policy Research in Higher Education (CPRHE of NUEPA) shows that teaching in average performing college and universities are still unidirectional, information oriented and less interactive- a clear misfit in today's time.

The classroom observation of a degree college (surveyed in 2015-16¹) located in one of the metropolitan cities rather help representing the common scenario. It shows that the class sizes for a main subject (honors subject) in social science are large with about 45-50 students. The benches and desks were arranged in a direction so that students can focus towards the teacher. A large section of students were prepared with notebooks and pens before the teacher entered to the classroom. Soon after

the teachers arrived and greets the class, he straightway jumped into the topic for lecturing. There was no communication between the teacher and students on what are required by the students, or if there is any questions etc.

The lecture began and teacher used his own notebook and a book (not a textbook, but of a similar kind) to explain the topic. Some students started taking through notes and some focused on the major points and noted them down. However, there were students who did not engage in noting down anything and just listened to the lecture, sometime barely paying attention to it at all. The class continued, with unidirectional lecture and some pauses, where the teacher asked 'do you understand (?)' soon before continuing with the lecture. Finally, the teacher completed his lecture and asked 'do you have any questions?' A student, sitting on the first row, raised her hand and asked a clarificatory question. The teacher re-explained one such issue. He then asked the students to study hard and left the classroom. The class officially concluded. However, students spent about 5-7 minutes in the class discussing their doubts to each other, comparing their handwritten notes before dispersing. Later the Focus Group Discussion (FGD) with the students of the same class revealed that many of them have an online app based platform (e.g. whatsapp) to further discuss the topics. They have also mentioned that they need better interaction in the classroom. This is a common scenario across colleges in India as noticed during several classroom observations, for the CPRHE/ NEUPA study. However, why is it so? Why did not students raise any questions during the class (until asked for) or challenged the teacher in any occasion? Why was not their question analytical and rather clarificatory in nature? Why not the teacher did engage with the students interactively in true sense? The next section helps explaining.

Section II: The power dynamics

The discussion above shows that on the one hand teachers feel the pressure to follow the top down mandates of completing the course, following the syllabus and improve individual performances to keep improving on the Academic Performance Indicators (API) score board. The power structure works profoundly, where teachers often have less freedom on what to teach (and what not to teach) and almost no scope for experimenting with teaching-learning. They often find themselves at the bottom of the power hierarchy, without much option but to follow the instructions. However, the position in the power hierarchy overturns when the teachers come to the class. They lead the lecture and students accept the views, rather imposed by the teacher(s), without challenging or questioning them. However, from the post class FGDs, it is clear that students want a friendly, more interactive teacher. During the interviews with the teachers, most of them also mentioned that they clarify with the students if they have any questions or need more discussions – hence they claim themselves 'interactive'.

Brookfield (1995) argues that to understand why students accepted the imposed view, or the predominance of the professor's authority, it is important to look at the

power-relations. Traditionally, since the age of the gurus, students were taught to consider the teacher or guru as an unquestionable authority. The guru is the one, who knows everything and knows the best. The root of the answer perhaps also lies into the very origin of the word, 'lecture'. The word originated from the Greek word '*legein*,' which means saying or telling something. Similar to that, the Latin word is *lectus* speaks of choosing, or the word *lectura*, which refers to the act of reading from text. This suggests that lecturing was originated from the very idea of communication, however, with the aim of transferring meanings to others. This also means that the lecturer gets a commanding legitimacy over others (listeners) on the topic of lecture.

The tradition and its underlying principals, clearly, have not changed much even today, especially in Indian higher educational sphere. This connotation of superiority and inferiority or that of the oppressor and oppressed (after Freire) plays its role, which translates into the conceptualization of 'lecture'. Hence, even though a teacher in higher educational institute opens the floor for questions and counter opinions, students prefer to be silent. In most cases, students felt insecure and when there was no authority to guide them, the teacher felt inclined to fulfill their wishes by telling them the 'correct answer'(Marcela et. al., 2014). Therefore, even though many students, during the FGDs, have mentioned 'lecturing' as 'boring', they rather tend not to raise that issue in the classroom. The tacit agreement that the teacher could provide the 'truth' predominates and students, in most cases, accept them without questioning. Perhaps that is why, the teachers also, in most of the time, quickly asks the students if they have any questions, soon before moving on to the next discussion, as observed in the study.

The same connotation can be applied when the teachers' voice is unheard in the process of following top-down mandates from the higher authority. The top management decides what is right and tends to consider a blanket approach to implement it where teachers are often passive receivers and tend to accept it, much similar to that of the teacher lecturing in a class without paying attention to the diversified requirements. In both cases, teachers and students open up about their disregard to the higher power, but not when the actual situation demand for it.

Section III: Freirean approach to understand the power dynamics and teaching-learning in Indian higher education

Paulo Freire, the Rousseau of the twentieth century (Bhattacharya, 2010) has some critical explanations and solution to the above mentioned situation. As the 'inaugural philosopher of critical pedagogy' (McLaren, 2000; Breuing, 2010), Freire proposes an approach to study the educational institution and society that has its main function in the revelation of tacit values that underlies the enterprise (Eisner, 1994). His approach requires understanding the structuring of the institution in its socio-political context, the ways in which roles are defined and the interactions, which drives them in certain direction (Mandal & Mandal, 2013). The interaction, is

often 'hidden' which should be unraveled to understand the power dynamics and how education is shaped by the society as an institution and how that has influenced in redefining the role of individuals in the society. If we put his approach to understand the teaching-learning of Indian higher education, we find two broad theoretical underpinnings to deal with. First, the interaction between the oppressor and the oppressed and its implications on each side and secondly, the implications on pedagogy, deeply rooted in the practices of teaching-learning.

Power relation between the oppressor and the oppressed

Taking the issue of oppressor and the oppressed first, we get three groups of individuals: one, the institution (policy makers, regulating bodies, curriculum development committee, university and college administration and so on), second, the teachers and third, the students. However, we also get two sets of power relations; that of between the administration and the teachers and between the teachers and the students, as aforesaid. Here, it is important to highlight that the words 'oppressor' or 'oppressed' do not always represent a negative connotation, especially in this paper. The institution and the teachers may actually be dedicated and have better knowledge and locus-standi to improve the conditions. These terms, after Freire, are therefore used to highlight the way power is exercised in a complex manner.

Freire (1970, 1985, 2005) explains that with the exercise of the power, both the oppressor and the oppressed deal with the 'fear of freedom'. Whereas the oppressor is afraid of losing the freedom and the supremacy, the oppressed may well lead to desire the role of the oppressor or can bind them to the role of the oppressed. One key element between the relationship of the oppressor and the oppressed is 'prescription'- as coined by Freire (1970, 2005). Every prescription represents the imposition of one individual's choice upon another; influence in transforming the consciousness of the person into one that conforms with the preservers consciousness. Therefore on the one hand, the behavior of the oppressed is a prescribed behavior. The oppressed having internalized the image, adopts his/her guidelines, fearful of freedom and becomes resigned to it. They often prevent themselves from going into any conflict with the oppressor as long as they feel running the risk it requires. Freire also elaborates that it is not always the fear of the oppressor, but also the influence of fellow oppressed individuals, who prevents such conflicts with the oppressor. The oppressed thus dwells into duality, with the desire and the fear at the same time. They are at one point themselves and some other point, the oppressor, whose consciousness they have internalized. Probably that is why, as soon as the oppressed gets a chance to become more powerful than someone else, the role flips. They transform as the oppressors which percolates down to the spiral of power hierarchy existing in our complex society.

Looking through the lens of Freire, we could link the discussion of section I and section II. It helps us to explain why teachers are silent receivers of the mandates from above in the same way students accept the teacher as a superior authority. The

physical organization of the classroom directs all students towards the teachers, leaving less room for interactions among themselves, while the class is going on. Similarly, the teachers receive the mandates as it is without much scope to intervene in its designing phase. However, both teachers and students interact within the groups. The teachers clarify, analyse, criticize the new mandates among themselves. However, they are often less vocal about it openly or rarely go into direct conflicts with the administration. The students, in a much similar fashion, stay back after the class or form online discussion group(s) to make a better meaning of the classroom lecture, where critical comments are exchanged. Even if they do not agree with some/whole of the lecture or the way it is delivered, they tend to avoid conflict with the teacher, as long as possible, or until the platform for free discussion emerges. Freire's thoughts also help explaining why the same teachers, who play the role of the oppressed (while the administration is playing the role of oppressor), suddenly shift to the role of an oppressor, when s/he assumes the role of teaching. Looking at it closely, we see that a pattern of power domination, which percolates from administration to teachers and then from teachers to students and so on.

Pedagogy and power structure

Freire (1985, 2005) along with other educationists (Giroux, 1988; McLaren, 2000) have analyzed this type of power relations discussed above and coined that it is deeply linked with the way pedagogy followed in all levels of education, especially in the developing countries, with inequality. He calls it the 'Banking' model of education, which is fundamentally rooted in a narrative character. This involves a narrating subject, here the teacher and listening objects, representing the students. The subject narrates the reality without questioning it, thus making it static and somewhat lifeless. This narration leads the students to memorize mechanically and the better the students 'contains' the information, the better the student they are. Perhaps that is why Freire criticized it by saying "education thus becomes an act of depositing (Freire, 2005:72).

This 'banking' concept of education is not only practiced in the school level education, but also at the higher education level, especially in the undergraduate courses. The in depth interviews with the teachers shows that they prefer lecturing over discussion in the undergraduate courses as firstly, they think students need information at this stage; secondly, students receive lecture well, as they are used to with it from schools, and thirdly, teachers believe that students mostly want to pass the exams in undergraduate levels, hence the drive to critical awareness is less in this level. Analyzing these responses through the theoretical understanding of Freire, it might be found that both teachers and the students are well accustomed to the culture of banking education. Hence, although students at this level are much more mature and have their own opinions, they seldom express it freely.

In explanation, Mathews et. al. (1990), Ramsden (2003) mentioned that there are many teachers who think that learning certain subjects like History or Chemistry, or some parts of every subject for that matter, is an unhappy business. To those,

students will realize the value of teaching, only when they graduate. On the contrary, Ramsden (2003) strongly argues that if a teacher cannot help student to enjoy learning, however hard that may be, there is something missing in the understanding of good teaching. There is no wonder why students want to 'pass the exam' as a way to 'get over with it', as the teaching-learning does not stimulate their intellectual thirst. However, at postgraduate levels, things are perceived little differently. Teacher focuses on more discussion, allows room for questions and clarifications. Interestingly, as found in the CPRHE/NUEPA study and also backed by Mathews *et. al.* (1990), it can be further seen that there is hardly any difference between opinion of the undergraduate and postgraduate students regarding their demand for more interaction oriented teaching-learning. Marsh (1987) concluded that students in the modern era are well informed and conscious; hence their opinion holds significant substance.

At this point, it is perhaps easy to 'blame the teachers' for not engaging into stimulating interactive discussion with the students. However, it is notable that Indian education system, for so long is operating on a 'prescription' mode. Hence instead of blaming the teachers, it seems important to understand the power structure and the interactions between the oppressor and the oppressed in a complex interconnected society. Looking through the conceptual lens, it can be seen that these teachers were also the products of a similar static and banking education system, where it minimizes or annul the creative and critical power (Freire, 2005). This effect sadly cascades into the generations to follow and becomes a norm, a justified practice and the culture emerges.

The culture of oppressor and oppressed continues in a complex spiral manner where the aim of the oppressor at the upper strata is not to change the structure but to change the consciousness of the oppressed. To achieve this end, banking model is used, but in a much more subtle form in contemporary time, where one might find the traces of modern jargons such as 'student centered learning', 'outcome oriented teaching' and so on as new lexicons of education. 'Flipped classrooms', 'online lectures' and 'personalized education' are gaining popularity as well. Here it seems important to note that the underlying concept is not new. The curriculum is centrally decided and while the places of learning may be personalized to the students, the content is not (Job & Sriraman, 2015). Similarly, the video or online lecture, whether it is designed by a public or third-party provider, the instructor/teacher/anchor is the authority on the knowledge that is provided. Therefore it may not yet be considered as 'dialogism' but a mutated form of banking model.

Moreover in practice, they have limited influence to change the structure as these new practices are often used to focus on the productivity or giving more choices to the users to choose from the existing repository of information rather than creating critical minds. According to Freire, the oppressors thus use their 'humanitarianism' (Freire, 2005: 73) in these cases and react almost instinctively against any experiments in education which stimulates the critical consciousness. Instead, the main focus becomes in changing the consciousness of the oppressed, not the

situation, which oppresses them (Freire 2005: 74), because it follows logically from the banking notion that the educators role is to regulate the world enters into the students. Perhaps that is why, in many instances, the structure works to reorient the oppressed towards normative conformity. If critically challenged, as it could be seen in some recent incidents in Indian higher education, the oppressors uses a 'paternalistic social action apparatus' (Freire, 2005) where the critical oppressed receives the title of 'welfare recipients' and treated as individual cases, deviated from the overarching and somewhat propagated configuration of 'good', 'organized' and 'just society'. The oppressed are often 'alienated' or get influenced by their fellows to adhere to the norm, often precluding their chances of becoming critical beings.

Conclusion

The power relation is part of the socio-political system, where education is an inseparable device, a powerful tool to maneuver and manipulate the dynamics. The paper, with its selected theoretical frame by Paulo Freire, discusses a single but important area, i.e. teaching-learning and focuses on the Indian higher education. Through the discussion, it has tried to exfoliate some aspects of the mechanism of how the power is exercised by the oppressor and the oppressed. However, its major finding is that in multilayered and interconnected institutions like universities and colleges, how the oppressed can also become the oppressor in a different but connected context. This chain follows down in spirals and webs of power relations and often creates a stagnant situation, as the underlying principal of domination remain unchanged. Indian higher education also suffers from this, which is taking a complex shape where several stakeholders are playing multiple roles at the same time. However, there are exceptional institutes and extraordinary teachers going beyond of their prescribed way to facilitate critical learning. This paper recognizes their efforts, but chooses to fathom deeper in the gloomier side, which is not always recognizable, complex to analyze and immensely difficult to change.

How to transform this situation to foster critical conscientization is perhaps the most obvious question at this juncture. However, this requires another platform, a series of detailed analysis, which may be based on the above discussion but must be situated in a much broader context helping to learn to perceive social, political and economic contradictions to take action against the '*oppressive elements of reality*' (Freire, 1970: 17).

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(Footnotes)

¹ As a part of the project several classrooms were observed, both undergraduate and postgraduate, from different disciplines and of different higher education institutions across the country. The example of this classroom represents a typical scenario.

Health Related Editorials in Three Hindi Dailies

*Mohd Salman Ejaz
S.K.Bhati*

Mass Media today play a significant role in the development of any nation as these communicate a message to hundreds and thousands of people within shortest possible time. Usually cost per unit of change is minimum through mass media, in comparison to individual and group approaches. According to William Metz (1977) the functions of mass media are to inform (provide news), to interpret (explain the news), to entertain, to furnish opinion and comments on affairs of public importance and to spread and maintain our national culture. Thus, these are catalyst of educational, social and cultural transformation of society. Among Mass Media, newspapers occupy a key position. It is the cheapest and one of the fast medium. Being written words, they have more source credibility than radio and television. Newspapers excel in informing and interpreting. It reports more in depth and also in greater detail than do the broadcasting media. The printed media, because of their ability to go into more detail and to explain complex issues may have more influence on public opinion than radio and television.

The opinion of the editor or editorial board of a newspaper will often appear in an official statement from the editor(s) called an editorial. Editorials are a newspaper's official stance on specific issues and can cover politics as well as social or cultural issues. They provoke thought, debate and action for the common good and attract the attention of policy makers, stakeholders and others having an interest in the development process of the country.

The editors build arguments- buttressed with facts and reasons – to advocate for or against something, though some good editorials are purely observational. Generally, an editorial writer proposes a stand, which should reflect thorough research and weighing of the facts. A newspaper's editorials have the ability to alter public opinion, bring a topic to the forefront of discussion, or expose something with which the writer does not agree.

Policy deciders take editorials so seriously that they monitor newspapers to avoid missing them. Thus, editorials have the potential to play a significant role to bring out transformation in the society. If the news houses really want to bring change in society, their content must be related to the needs of the masses.

Since, in our country health issues are always a topic of concern, therefore, it becomes obvious that newspaper should pay due attention to this section also. No individual can enjoy the comforts of life without good health. Without good health a

person's personal, professional and social life can suffer. World Health Organization's constitution regards, "the enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being" (WHO, 2012). Apart from being an essential factor for individual's growth and development, health forms the foundation on which the pillars of progress and advancement of a society are laid. Health is indeed an essential requirement for social development and nation building.

A sick person, apart from being a sufferer himself, is a burden on the family, community and the nation. Instead of contributing positively to the progress of the nation, sickness and ill health drains the nation off its resources and add to the disease burden of that society. A healthy person is an asset to the society. Recognizing the importance of health all the societies across the globe are constantly engaged in endeavors and programs that promote health.

It is important that the newspapers pay due coverage to the health related issues. They must not only give sufficient coverage to health news but should also regularly publish health editorials to influence the public opinion. Accordingly this study 'Health Related Editorials in Three Hindi Dailies' was conducted with the following specific objectives:

1. To decide different content categories and sub categories of Health Related Editorials.
2. To make a comparative analysis of nature and coverage of health related editorials on the basis of different content categories and sub categories.

Methodology

Selection of Newspapers

Hindi Newspapers were found to have highest circulation in the country. The Hindi newspapers have a circulation of 15.09 million followed by English newspapers having a circulation of 9.09 million (Audit Bureau of circulation, 2012). The three most popular Hindi newspapers in Uttar Pradesh i.e., Dainik Jagran, Hindustan and Amar Ujala were included in the study.

Health of the people is affected by the environment, different health problems appear during different seasons. So, the publication of editorials may also be affected from season to season. Thus, it was decided not to sample a particular period of the year for the study but to include all the issues published in a year. Hence, all the issues of these 3 newspapers i.e., Dainik Jagran, Hindustan and Amar Ujala from 1st January, 2014 to 31st December, 2014 were selected for the study. Newspapers published from Meerut were included for the study.

Selection of Health Editorials

As in the case of selection of newspapers, purpose-wise selection of health editorials was made. The various subject-matter categories and sub-categories of health editorials were assumed as the themes and sub-themes. All editorials with health themes or sub-themes headline were considered as health editorials. The editorials with non-health themes or sub-themes headline having more than 50 % of the space on health theme or sub-theme were also considered as health editorials. Besides having a frequency count of each of the health editorial, the total space devoted under them was also measured in square centimeters.

Unit of Analysis

The unit of analysis for codification and measurement were as follows:

Recording Unit: Entire editorial.

Context Unit: Entire editorial.

Enumeration Unit: Space in sq cms and frequency count.

Categorization

The health editorials were categorized in two ways.

Subject-matter categorization

After browsing through different health editorials of the 3 dailies various subject-matter forms of health editorials were jotted down. Then by doing various permutations and combinations of the subject-matter forms of health, editorial categories and sub-categories were formulated.

Purpose-wise categorization

The editors or the board of editors of the newspapers write editorials with some purpose. After studying the various editorials four types of health editorials were identified on the basis of their intended purpose namely, informative, advisory, achievement and situation.

Finding and Discussion

Distribution of Content in news, advertisements and editorials

During the period under study, i.e, 1st Jan, 2014 to 31st Dec, 2014 each of the three newspaper published 357 issues of newspapers. The distribution of their content in news, advertisements and editorials has been presented in **Table-1**.

Table-1: Distribution of Space under news, advertisements and editorials

S. No.	Content Categories	Amar Ujala Space (cm) %	Hindustan Space (cm) %	Dainik Jagran Space (cm) %	Total Space (cm) %
1	News Content	9243530.00(30.39) (64.16)	10856729.18(35.69) (71.97)	10317313.93(33.92) (62.42)	30417573.11(100.00) (66.09)
2	Advertisement	5163778.18(33.10) (35.84)	4225343.67(27.09) (28.01)	6209661.57(39.81) (37.57)	15598783.38(100.00) (33.90)
3	Vacant Space	206.08(3.43) (0.00)	2866.39(47.68) (0.02)	2939.64(48.89) (0.01)	6012.11(100.00) (0.01)
	Total	14407514.26(31.30) (100.00)	15084939.20 (32.78) (100.00)	16529915.14(35.92) (100.00)	46022368.60(100.00) (100.00)
4	Editorial*	145573.21 (1.57)	106425.85 (0.98)	135046.55 (1.31)	387045.61 (1.27)
*Out of Total News Content					

The Dainik Jagran published the maximum content space, i.e., 16529915.14 sq cm followed by Hindustan 15084939.20 sq cm and Amar Ujala 14407514.26 sq cm. On an average Dainik Jagran published 46302.28 sq cm space per day, Hindustan published 42254.73 sq cm space per day and Amar Ujala published 40357.18 sq cm space per day. Of the total published space of the three newspapers about 66 % was news content and about 34 % were advertisements. Among three newspapers, Hindustan devoted maximum space to the news content, i.e. 71.96 % and least to the advertisements, i.e. 28.04 %, Amar Ujala devoted about 64 % space to the news content and about 36 % to the advertisement, while Dainik Jagran devoted 62.4 % to News Content and 37.57 % to the advertisements. Hindustan seems to be more concerned for providing news content to the readers as it has devoted about 4516 sq cm more space than Amar Ujala and about 1508 sq cm more space than Dainik Jagran. Some space was left vacant in all the three newspapers but it was negligible.

As mentioned in the methodology these three Hindi national dailies had highest circulation. Among the three, Dainik Jagran was most popular as its circulation, i.e., 2,674,304 was highest. Not only its circulation was highest it also seems to be most preferred newspaper by business community as this newspaper devoted maximum space to advertisements. It devoted 1045883.39 sq cm more space than Amar Ujala and 1984317.90 sq cm more space than Hindustan to the advertisements. Its overall published space is also higher than the other two newspapers.

On an average these newspapers devoted 1.27 % space to the editorials. Amar Ujala devoted maximum space to editorials, i.e, 145573.21 sq cm which is 1.57 % of its total news content, followed by Dainik Jagran which devoted 135046.55 Sq cm space to the editorials, i.e, 1.31 % of its total news content while Hindustan devoted 106425.85 sq cm space to the editorials, its editorial space was not even 1 % of its total news content.

Space devoted to health editorials

The details of number of health editorials and space devoted to them by different news papers has been presented in **Table-2**.

S.No.	News paper	Total No. of Editorials	Total No. of Health Editorials	Total Editorial Space	Total Health Editorial Space
1	Amar Ujala	309(100.00) (18.83)	5(1.62) (7.69)	145573.21(100.00) (37.61)	1475.25(1.01) (13.00)
2	Hindustan	618(100.00) (37.65)	39(6.31) (60.00)	106425.85(100.00) (27.49)	7208.00(6.77) (63.50)
3	Dainik Jagran	714(100.00) (43.51)	21(2.94) (32.31)	135046.55(100.00) (34.89)	2668.29(1.98) (23.50)
	Total	1641(100.00) (100.00)	65(3.96) (100.00)	387045.61(100.00) (100.00)	11351.54(2.93) (100.00)

During the period under study 1641 editorials were published by these three news papers. Dainik Jagran published maximum number of editorials, i.e, 714, Hindustan published 618 editorials while Amar Ujala published only 309 editorials. Amar Ujala and Hindustan have not been publishing any editorial on Sundays. Dainik Jagran and Hindustan published 2 editorials daily while Amar Ujala published only 1 editorial daily. However, the space devoted by Amar Ujala was more than that of Dainik Jagran and Hindustan as the space per editorial of this newspaper was more than twice than the other two newspapers.

During the period under study these three newspapers published 65 health editorials, i.e, 3.96 % of the total number of editorials published and devoted 2.93 % space to health editorials out of total editorial space. Hindustan published 39 health editorials i.e, 6.31 % of its total number of editorials and devoted them 7208 sq cm space, Dainik Jagran published 21 health editorials, i.e, 2.94 % of its total number of editorials and devoted 2668.29 sq cm space while Amar Ujala published only 5 health editorials, i.e, 1.62 % of its total number of editorials and devoted 1475.25 sq cm space. It is obvious that Hindustan gave maximum importance to Health editorials

followed by Dainik Jagran and least coverage to Health editorials was given by Amar Ujala.

Purpose-wise categorization of health editorials

Four purposes of the health editorials were identified. Some of the editorials were informative, some were advisory, some were highlighting achievements of Government while some were describing situation. The details of purpose wise distribution of health editorials have been present in **Table-3**.

S. No.	Categories	Amar Ujala			Hindustan			Dainik Jagran			Total		
		No.	Space (%)	Rank	No.	Space (%)	Rank	No.	Space (%)	Rank	No.	Space (%)	Rank
1	Information	1	303.75 (5.51) (20.59)	2	24	4964.00(90.06) (68.87)	1	2	244.30(4.43) (9.16)	3	27	5512.05(100.0) (53.22)	1
2	Advisory		0.00		3	527.00(42.82) (7.31)	3	5	703.75(57.18) (26.37)	2	8	1230.75(100.0) (10.82)	3
3	Achievement	1	282.00(64.38) (19.12)	3		0.00		1	156.00(35.62) (5.85)	4	2	438.00(100.0) (4.23)	4
4	Situation	3	889.50(21.33) (60.29)	1	12	1717.00(41.16) (23.82)	2	13	1564.24(37.51) (58.62)	1	28	4170.74(100.0) (31.73)	2
	Total	5	1475.25(13.0) (100.00)	3	39	7208.00(63.50) (100.00)	1	21	2668.29(23.50) (100.00)	2	65	11351.54(100.0) (100.00)	

Table-3: Purpose-wise Distribution of Health Editorials

It is evident from the table that most of the editorials were either informative or have been describing the health situation. Maximum space, i.e, 53.22 % of the total health editorial space was occupied by the informative editorials followed by situational editorials (31.73 %), about 11 % of the total health editorial space was provided for the advisory editorials and only about 4 % of the total health editorial space was provided to the editorials pertaining to achievements.

Hindustan gave more importance to the informative editorials. Of the total health editorial space occupied by Informative editorials 90 % was devoted by Hindustan. Of the total situational health editorial space 41.16 % was published by Hindustan, 37.51 % by Dainik Jagran and Amar Ujala published 21.33 % space. Eight editorials were advisory in nature, of these eight, 5

were published by Dainik Jagran while Amar Ujala did not publish an advisory editorial. There were only 2 editorials pertaining the achievement, both were regarding the achievement of government about polio eradication. One was published by Amar Ujala and another by Dainik Jagran.

Subject-matter wise categorization of health editorials

The WHO definition of health envisages three dimensions of health, i.e., physical, mental and social. The physical health implies the notion of absence of diseases or infirmity and perfect functioning of the body. Mental health pertains to mental capacities of an individual his/her abilities to work productively and fruitfully & ability to cope with normal stresses of life. Social health is concerned with the quality and quantity of an individual's interpersonal ties and the extent of involvement with the community (Donald et al, 1978). It implies harmony and integration between individuals and the world in which they live (Cmich, D.E, 1984). The concept of social health is very broad and most of the news editorials may be covered under social health. Handling such a vast number of news editorials would have been a tremendous task. Hence, only the physical and mental health news editorials have been included in this paper. The health editorials have been categorized into physical health, mental health and miscellaneous. The miscellaneous category includes the news editorials that pertain to both physical and mental Health. The details of subject-matter wise categorization has been presented in **Table-4**.

Table-4: Subject-matter-wise categorization of Health Editors

S. No.	Categories	Amar Ujala			Hindustan			Dainik Jagran			Total		
		No.	Space (%)	Rank	No.	Space (%)	Rank	No.	Space (%)	Rank	No.	Space (%)	Rank
1	Physical Health	4	1171.50(14.62) (79.41)	1	30	5342.25(66.69) (74.12)	1	12	1497.25(18.69) (56.11)	1	46	8011.07(100.00) (70.57)	1
2	Mental Health	0	0.00 (0) (0)	3	7	1449.25(100.00) (20.11)	2	0	0.00(0) (0)	3	7	1449.25(100.00) (12.77)	3
3	Health Misc	1	303.75(16.06) (20.59)	2	2	416.50(22.02) (5.78)	3	9	1170.97(61.92) (43.89)	2	12	1891.22(100.00) (16.66)	2
	Total	5	1475.25(13.00) (100.00)	3	39	7208.00(63.50) (100.00)	1	21	2668.22(23.50) (100.00)	2	65	11351.54(100.00) (100.00)	

Of the 65 health editorials, 46, i.e. about 71 % pertains to physical health, 12 editorials, i.e., about 17 % pertains to health miscellaneous and 7 editorials, i.e., about 13 % were on mental health. Of the 46 editorials on physical health 30 were published by Hindustan, 12 by Dainik Jagran and only 4 by Amar Ujala. Space wise also Hindustan devoted maximum space to physical health followed by Dainik Jagran and Amar Ujala. The Dainik Jagran and Amar Ujala did not published any editorial on mental health while Hindustan published 7 editorials on mental health and devoted 20 % of its total health editorial space to mental health. Of the 12 miscellaneous health editorials, 9 were published by Dainik Jagran, 2 by Hindustan and 1 by Amar Ujala. Dainik Jagran devoted about 44 % of its total health editorial space to health miscellaneous.

Sub-categorization of physical health

Editorials on Physical Health were further categorized into sub-categories. Number of editorials and space devoted to sub-categories has been presented in **Table-5**.

S.No	Categories	Amar Ujala			Hindustan			Dainik Jagran			Total		
		No	Space (%)	Rank	No.	Space (%)	Rank	No.	Space (%)	Rank	No.	Space (%)	Rank
1	Disease	1	282.00(15.25) (24.07)	3	6	947.75(5 1.25) (17.74)	1	5	619.60(3 3.50) (41.38)	1	12	1849.35 (100.00) (23.08)	1
2	Environment	2	585.75(34.75) (50.00)	1	5	748.00(4 4.38) (14.00)	4	3	351.67(20. 87) (23.49)	2	10	1685.42 (100.00) (21.04)	2
3	Nutrition				4	833.00(87. 00) (15.59)	3	1	124.50(13. 00) (8.31)	5	5	957.50(100.00) (11.95)	4
4	Medical Practices & Techniques	1	303.75(22.23) (25.93)	2	5	935.00(68. 44) (17.50)	2	1	127.50(9.3 3) (8.52)	4	7	1366.25 (100.00) (17.06)	3
5	Health Laws/policy				4	735.25(10 0.00) (13.76)	5				4	735.25(100.00) (9.18)	5
6	Personal Hygiene				1	199.75(10 0.00) (3.74)	7				1	199.75(100.00) (2.49)	8
7	Health Administration				2	416.50(10 0.00) (7.80)	6				2	416.50(100.00) (5.20)	6
8	Substance Abuse				1	110.50(41. 27) (2.07)	8	1	157.25(58. 73) (10.50)	3	2	267.75(100.00) (3.34)	7
9	New Health Programme							1	116.80(10 0.00) (7.80)	6	1	116.80(100.00) (1.46)	9
10	Health Promotion				2	416.50(10 0.00) (7.80)	6				2	416.50(100.00) (5.20)	6
	Total	4	1171.50(14.6 2) (100.00)	3	30	5342.25(6 6.69) (100.00)	1	12	1497.25(1 8.69) (100.00)	2	46	8011.07 (100.00) (100.00)	

Of the 46 physical health editorials, 12 were on diseases, 10 on environment, 7 on medical practices and techniques, 5 on nutrition, 4 on health laws/policies while only 1 or 2 editorials were on some other categories. Maximum space was also devoted to the diseases followed by environment, medical practices and technics, nutrition, health laws/policies while least space was devoted to the sub category new health programme.

Amar Ujala published only 4 editorials on physical health, 2 on environment and 1 on disease and 1 on medical practices and techniques. Of the 12 editorials published by Dainik Jagran, 8 were on diseases and environment and of the 30 editorials published by Hindustan, 11 were on disease and environment. It seems that these two categories have been given maximum importance by the editors of the news papers. The editor of the Hindustan has also given importance to the sub-category medical practices and techniques, nutrition and health laws/policies as Hindustan have published 5, 4 and 4 editorials on these sub-categories respectively.

Sub-categories of Mental Health

The details of sub-categories of mental health has been presented in **Table-6**.

S. No.	Categories	Amar Ujala			Hindustan			Dainik Jagran			Total		
		No.	Space (%)	Rank	No.	Space (%)	Rank	No.	Space (%)	Rank	No.	Space (%)	Rank
1	Mental Health Promotion	0.00(0.00)	(0.00)	4	824.5(100.00)	(56.89)	1	0.00(0.00)	(0.00)	4	824.5(100.00)	(56.89)	1
2	Stress & Mental Health	0.00(0.00)		2	416.5(100.00)	(28.73)	2	0.00(0.00)		2	416.5(100.00)	(28.73)	2
3	Mental Health Research		(0.00)	1	208.25(100.00)	(14.36)	3		(0.00)	1	208.25(100.00)	(14.36)	3
	Total	0.00(0.00)		7	1449.25(100.00)	(100.00)	1	0.00(0.00)		7	1449.25(100.00)	(100.00)	

The Table shows that of the seven mental health editorials published by Hindustan, 4 were on mental health promotion, 2 were on stress and mental health and 1 on mental health research. Of the total mental health editorial space, mental health promotion was devoted 57%, stress and mental health was devoted about 29% and mental health research was devoted about 14% space.

Sub-categories of Miscellaneous

The details of sub-categories of Health Miscellaneous, that includes both physical and mental health, have been presented in the **Table-7**.

S. No.	Categories	Amar Ujala			Hindustan			Dainik Jagran			Total		
		No.	Space (%)	Rank	No.	Space (%)	Rank	No.	Space (%)	Rank	No.	Space (%)	Rank
1	Health Education							1	127.50(100.00) (10.89)	4	1	127.50(100.00) (6.74)	6
2	Health Information Sources (Wikipedia)				1	208.25(100.00) (50.00)	1				1	208.25(100.00) (11.01)	5
3	Law	1	303.75(100.00) (100.00)	1							1	303.75(100.00) (16.06)	3
4	Cleanliness & Mental Health				1	208.28(100.00) (50.00)	1				1	208.25(100.00) (11.01)	5
5	Indiscipline Doctors							3	425.00(100.00) (36.29)	1	3	425.00(100.00) (22.47)	1
6	Cost & Availability of Medicines							2	247.85(100.00) (21.17)	3	2	247.85(100.00) (13.11)	4
7	Poor Health Administration							3	370.62(100.00) (31.65)	2	3	370.62(100.00) (19.60)	2
	Total	1	303.75(16.06) (100.00)	3	2	416.50(22.02) (100.00)	2	9	1170.97(61.92) (100.00)	1	12	1891.22(100.00) (100.00)	

The table shows that maximum health miscellaneous editorials were published by Dainik Jagran. It published 9 health miscellaneous editorials, 3 on indiscipline of doctors covering about 36 % of total Health Miscellaneous space in Dainik Jagran, 3 editorials were on poor health administration and 2 on cost & availability of medicines. Hindustan published 2 editorials on health miscellaneous one pertains to health information sources while another was on cleanliness & mental health. Amar Ujala published only 1 health miscellaneous editorial and that was on health laws.

Summary and Conclusion

On an average these newspapers devoted 66 % of the printed space to the news content and 34 % to advertisements. Dainik Jagran does not only has highest circulation but also seems to be the most preferred newspaper by business community as this newspaper devoted maximum space among the three to advertisements. Hindustan devoted more space to news content in comparison to other two newspapers. On an average these newspapers devoted 1.27 % space to editorials. Amar Ujala devoted more space to editorial in comparison to Dainik Jagran and Hindustan. Of the total space devoted to editorials only about 3 % was on health editorials. Hindustan gave maximum importance to health editorials. It devoted about 7 % editorial space to health editorials. Dainik Jagarn and Amar Ujala should also devote more space to health editorials atleast as much as has been devoted by Hindustan if not more. Most of the editorials were either informative or have been describing the health situation. Advisory or Achievement pertaining editorials were very few. About 71 % of the health editorials space was devoted to physical health and only 13 % to mental health. Of the physical health editorial space maximum was devoted to diseases followed by environment, medical practices and techniques and nutrition. Very less space was devoted to new health programme, personal hygiene, health promotion and substance abuse. Of the 12 health miscellaneous editorials 3 pertains to indiscipline of doctors and 3 to poor health administration.

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Life Skills Education and Effective Ways of Teaching and Learning

D. Janardhana Reddy

Life skills education has great relevance to school children and adolescents in modern society as they face many conflicting and risky situations in society. They need to be equipped with knowledge and skills required to handle problem situations. Hence, life skills education (LSE) was formulated to impart skills to students. The ten core life skills to be imparted, as laid down by the World Health Organization (WHO), are Self-awareness, Empathy, Critical thinking, Creative thinking, Decision making, Problem solving, Effective communication, Interpersonal relationship Coping with stress and Managing emotions. The programme has different components and one of the important components is teaching methodology. The success of the programme depends on how effectively the life skills are taught to students. In this context, it is necessary to examine present day classroom system. The present system focuses more on teaching and less on learning. Teaching is teacher oriented and learning is student oriented. Similarly, teachers are more active and students are more passive in class room. Teachers usually follow single mode of instruction i.e. lecture method and this does not suit to the learning styles of different students. It is a fact that students learn in different ways and every student has his/her own learning style. Therefore, the single mode of instruction makes learning a dull and monotonous activity. It is more likely that the same methodology would be followed in life skills education also. This trend has to be changed in favor of multi-sensory approach to make learning more effective and to facilitate active participation of students. Hence, three models or theories, namely Gardner's theory of Multiple Intelligences, Social Learning Theory of Bandura and Visual-Auditory Kinesthetic Model are discussed in this paper. Multiple intelligence approach explains teaching activities of teachers in a classroom and social learning approach to learning of students both inside and outside the classroom. The strategies discussed help teachers and students to teach and learn life skills effectively. Multiple ways of teaching and matching the teaching style with learning style enhances retention levels of students.

Key Concepts of Life Skills

Before discussing the ways of teaching and learning life skills, it is necessary to have an understanding of key concepts of life skills education. World Health Organization (WHO), conceptualizing life skills as psychological competences, defined them as 'the abilities for adaptive and positive behavior that enable individuals to deal effectively with the demands and challenges of everyday life'. While the term 'adaptive' indicates flexibility and adjustment to different situations, the term 'positive' denotes forward looking or hope even in adverse situations. WHO has identified 10

core life skills and these core skills can be broadly categorized into three groups, namely social skills, cognitive/thinking skills and emotional/coping skills. While social skills include interpersonal skills, communication skills and empathy skills; cognitive skills include decision making skills, problem-solving skills, critical thinking skills and creative thinking skills and the emotional/coping skills are self-awareness skills, coping with stress and coping with emotions. A brief description of ten core life skills is presented below:

1. **Self-awareness:** It indicates the knowledge of one's strengths and weaknesses, likes and dislikes. It facilitates effective communication, better handling of human relations, empathetic understanding etc.
2. **Empathy:** It is an ability to understand and care about others' needs, desires and feelings. Understanding ourselves and others improves social relations and helps to accept others in spite of differences.
3. **Critical thinking:** It refers to individuals' ability to analyze information and experience in an objective manner. It helps people to understand the influence of others – peer pressure, media etc – on human behavior and enable them to take informed decisions.
4. **Creative thinking:** Creative thinking involves four components – fluency, flexibility, originality and elaboration. Fluency is generating new ideas, flexibility denotes shifting perspectives easily, originality indicates conceiving of something new and building on other ideas is elaboration.
5. **Decision making:** It involves taking decisions about one's life or actions in relation to healthy assessment of different options and consequences of different decisions.
6. **Problem solving:** It is the ability to deal with problems constructively. Unresolved problems can cause mental stress and physical strain.
7. **Interpersonal relationships:** It refers to making and maintaining cordial relationships with people – family members, friends, relatives, colleagues etc. Good relationships are important to our mental and social well-being and it is also a source of social support.
8. **Effective communication:** It refers to ability to express, both verbally and non-verbally, opinions, desires and needs in ways that are appropriate to the situations. It is also an ability to seek advice and help from others. The quality of human relationships depends on how effectively individuals communicate.
9. **Coping with stress:** It implies the ability to recognize the sources of stress and the impact of stress on body. It also involves stress management practices i.e. changing the life style, relaxation etc.
10. **Coping with emotions:** It is the ability to recognize emotions of one self and others and to respond to emotions in an appropriate manner. It also involves awareness of impact of negative emotions like anger or sadness on health.

In sum, life skills include psychological and sociological competences that help people build healthy relationships, communicate effectively, make informed decisions, solve problems, think creatively and critically, empathize with others, coping with stress, and manage their life in a healthy and productive manner. Research studies also indicated the impact of life skills education on human behavior. The effects are: lessened violent behavior, increased pro-social behavior, decreased self destructive behavior, improved self-image, better handling of interpersonal relations, improved social and emotional adjustment. Further, the foundation of life skills education is based on different theories which explain that individuals learn what to do and how to act by observing others; that their behavior is reinforced by the positive or negative outcome of observations, and that individuals learn in multiple ways.

Multiple Intelligences

Howard Gardner, proponent of multiple intelligence theory, remarked that present "educational system is heavily biased towards linguistic modes of instruction and to somewhat lesser degree, toward logical-quantitative modes." He argued that the "broad spectrum of students and perhaps the society as a whole would be better served if disciplines could be presented in a number of ways". The theory of multiple intelligences developed by Gardner (Frames of Mind, 1983) has educational implications including life skills education. Hence, there is a need to discuss briefly the main features of the theory. He argued that intelligence is not just one type of ability but a mixture of several abilities. Gardner identified, initially, seven intelligences and they are Verbal/linguistic intelligence, Logical/mathematical intelligence, Visual/spatial intelligence, Body/kinesthetic intelligence, Musical/rhythmic intelligence, Interpersonal intelligence and Intrapersonal intelligence. Subsequently, he has identified another intelligence i.e. naturalistic intelligence. A brief description of these intelligences is presented below:

- **Verbal/Linguistic Intelligence (Word smart):** This is concerned with language, reading, writing and speaking. This is the ability to use language to express oneself rhetorically and a means to remember information. Students of high linguistic intelligence would learn better by reading, listening to lectures, taking notes and discussing. Gardner believed that poets, writers, speakers, lawyers and journalists would be higher in this intelligence.
- **Logical/Mathematical Intelligence (Number-reasoning smart):** Persons who are strong in this intelligence solve problems quickly, analyze them logically and excel in mathematics, chess, computer programming etc. They think scientifically and ask more questions.
- **Visual/Spatial Intelligence (Picture smart):** It involves visual perceptions, imagination, clear images and spatial judgment. Individuals of this category enjoy pictures, movies etc.

- **Body/kinesthetic Intelligence (Body smart):** It involves physical coordination and body movement. Persons of this intelligence learn better through physical activities or muscular movement rather than reading or hearing about it.
- **Musical/rhythmic Intelligence (Music smart):** It refers to ability to perform, compose and appreciate music. It involves understanding and expressing oneself through music and rhythmic movements. It includes sensitivity to rhythms, tones, pitch, melody etc.
- **Interpersonal Intelligence (People smart):** It involves a person's ability to understand other people's intentions, desires. It involves working and moving with others comfortably. Persons of this intelligence communicate well and empathize easily with others. They may be characterized as extroverts.
- **Intrapersonal Intelligence (Self smart):** It refers to self-awareness and it involves individuals' ability to understand their inner thoughts and feelings including introspective, self reflective capacities. These persons may be characterized as introverts.
- **Naturalist Intelligence (Nature smart):** It involves understanding the nature – plants, animals etc., recognizing their characteristics and categorizing them. It also includes one's natural surroundings. They like cloud watching and bird watching.

Educational Implications

The theory argues that all human beings are born with eight intelligences, but they are developed to different degrees in each person. He believed that every person is strong in two or three intelligences. The type of intelligence that a person possesses indicates not only a person's capability, but also the manner or method in which they prefer to learn. For example, a person who is strong musically and weak numerically will be more comfortable to learn numerical skills through music. Similarly, the theory suggested several ways in which material could be presented to facilitate effective learning. It applies to teachers of all levels from K.G to P.G. For example, if an adolescent is learning decision making skills or problem solving skills, he/she can read a book or listen to a lecture (linguistic), examine graphic chart that illustrates the principles of decision making (visual/spatial) or introduce the theme through a song or music. Similarly, students can observe how the parents or role models take decisions and learn the skills. Gardner's theory explains that students possess different intelligences and therefore learn, remember, perform and understand in different ways. As the theory has strong educational implications, it attracted the attention of many educational institutions around the world. In India also, many big and popular national and international schools are proudly stating in their publicity campaigns or advertisements that their teaching methodology is based on multiple intelligences. This signifies the popularity of the theory. One of the remarkable features of the theory is that it provides eight different potential path ways to learning. The

principles of the theory enable the teachers to meet the emotional needs of students as it is a personalized and diversified instructional plan. According to Tomlinson (2003), students whose emotions are attended to are more engaged in the learning process.

Teaching/Learning Activities based on Multiple Intelligences

The theory of multiple intelligences provides opportunities for teachers to plan and devise different activities for classroom teaching and to engage students actively in teaching learning process. This approach optimizes the learning of students as the teaching activity is planned in correspondence with their learning styles/intelligences. Following are some of the teaching/learning activities to impart life skills to students.

- **Verbal/Linguistic:** Students who are strong in this intelligence can be taught through activities like reading, writing, lectures, discussions, debates, storytelling, word games, reading aloud. They can learn foreign languages easily as they have high verbal memory. Careers like lawyers, teachers, writers, journalists and politicians are suitable for these people.
- **Logical/mathematical:** For students of this intelligence, teachers can ask students to arrange things in logical sequence, categorize the list of words; make an outline of a lesson. They prefer: experiments, problem solving, analyzing, classifying, sequencing, logic games, reasoning and calculating activities. Suitable careers for these persons are: scientists, mathematicians, engineers, researchers etc.
- **Visual/spatial:** Visual learners prefer activities like drawing, painting, mind mapping, visualizing, note making, visual puzzles etc. Teachers can teach through flash cards, diagrams, charts, pictures, slides, power point, video etc. Suitable jobs include designers, architects, artists, engineers, photographers etc.
- **Body/kinesthetic:** Students can be taught through physical activities, hands on learning, role play, drama, games, craft work, field trips etc. Create opportunities for movement, changing the seats/places, taking a break etc. The careers like sports, dancers, actors, surgeons, soldiers, police officers etc. are suitable for these individuals.
- **Musical/rhythmic:** Life skills can be imparted to students through songs, rhymes, poems. They like rhythmic speaking of teachers. Lecture method can also used as musical intelligence involves auditory component. Musically intelligent people prefer jobs like singers, instrumentalists, composers etc.
- **Interpersonal:** Students who are strong in interpersonal intelligence enjoy group activities like group discussion, debates, group study, seminars, participation in

club activities, peer teaching etc. Suitable jobs include marketing jobs, politicians, teachers, social workers, managers etc.

- **Intrapersonal:** These students like independent study, inspirational books, quotations, and activities involving thinking. They avoid group activities and they prefer to study alone. Suitable professions are philosophers, psychologists, writers.
- **Naturalist:** Naturalist students like reading outside, visiting the park and zoo etc. Use plants and animals as examples and tell stories of animals to teach life skills (ex. Panchtantra) suitable jobs include forest officers, gardeners, farmers etc.

The VAK Model (Visual, Auditory, Kinesthetic Learning Style Model)

The VAK model was first developed by psychologists and educationists like Fernald, Keller, Orton and Gillinhan during 1920s. It is a simple and traditional model to understand and explain students' preferred ways to learn or styles of learning. The VAK model is similar to the theory of M.I but it constitutes only three components i.e. visual, auditory and kinesthetic. It is also recognized as a multi-sensory approach to teaching and learning. According to this model there are three categories of learners – auditory learners, visual learners, and kinesthetic learners. The characteristics of these learners are presented briefly.

Auditory Learners

- They prefer listening to a lecture than reading a book
- They follow oral instructions better than written ones
- They enjoy talking to others/discussion
- They seldom take notes
- They frequently sing, hum or whistle
- They often repeat what has been said, talks to self
- Understand better when they read aloud

Visual Learners

- They learn best from visuals- Charts, posters etc.
- They follow written instructions better than oral ones
- They are skillful at making graphs, charts etc.
- They like to take notes
- They are not comfortable with lectures
- Watch speakers facial expressions and body language

Kinaesthetic Learners

- They prefer to do things rather than watching a demonstration
- They learn through movement.
- They enjoy making things with hands
- They constantly fidget (playing with keys, pens etc)

- They often doodle while listening
- They learn by doing i.e. physical activities
- They like touching/handling the materials

Students can also be taught life skills by using this model. Teaching and learning activities need to be designed in accordance with the characteristics of students. While auditory learners respond well to lectures, visual learners respond better to pictures, charts and kinesthetic learners prefer physical activities, frequent breaks and movement. Teachers may identify the learning styles of students and develop instructional designs accordingly.

Social Learning/Observational Learning

Another theory that has much relevance to life skills education is social learning theory developed by Albert Bandura (1997). It emphasizes the importance of observational learning and modeling. He argued that learning is not limited to reinforcement i.e. rewards and punishment. He said that individuals learn by observing, reading or hearing about other people's behavior. Following are the assumptions of observational learning:

- (i) People learn by observing others
- (ii) Learning is internal
- (iii) Learning is goal directed behaviour

By observing others, people acquire knowledge, skills and attitudes. Individuals also learn about usefulness and appropriateness of behaviours by observing models (persons) and also the consequences of such modelled behaviour.

Modelling

Albert Bandura, an American Psychologist, developed the concept of modelling or models. Individuals that are observed are called models. In society, children are surrounded by many influential models such as parents within the family, characters on T.V or books, teachers in schools and friends in peer group. These models provide examples of behaviour to observe and imitate. Children pay attention to see how these people (models) behave in different situations and encode their behaviour. In course of time they may imitate the behaviour they have observed. They talk and act in the same way as models did.

Facilitating factors

The characteristics of models are important factors in determining the degree to which individuals pay attention to the model. The response of the individuals or learners to the modelling behaviour is largely facilitated by three factors:

- (i) The attributes of the model such as relevance and credibility
- (ii) The prestige or status of the model
- (iii) Satisfaction with the present situation or positive characteristics of the situation where the behaviour is being modelled

Types of models

Albert Bandura identified different models:

- (i) Live model
- (ii) Symbolic model
- (iii) Verbal model

Live Model: It involves a real person practicing the desired behavior and observation by others (ex. students) directly. For example, children observe directly and imitate the behavior of parents. Children are surrounded by many influential models – parents, teachers and peer group leaders. To impart life skills to children, parents may exhibit desired behavior i.e. life skills in real life situations. Similarly, teachers may do the same in schools. This model doesn't require formal teaching of life skills in a classroom setting.

Symbolic model: This model involves fictional or real characters. It presents the life skills or desired behavior indirectly through films, T.V, books etc. It is an indirect communication. It includes imitating the behaviors displayed by characters in books, plays, movies or T.V. Students may be encouraged to read biographies of great people like Mahatma Gandhi and Swami Vivekananda. Similarly, other channels like T.V, radio, films may also be used to depict life histories of great leaders or fictitious stories. Film heroes/heroines will also be role models for students.

Verbal model: This is also called social persuasion. This model characterizes verbal description of desired behavior or life skills by speakers. Meetings may be organized in school/college campuses and life skills can be explained through motivational speakers, experts or celebrities. Parents can also impart life skills through storytelling, quotations and success stories occurred in real life situations. Parental involvement is a simple and no-cost intervention. This exercise can be made a part of their daily life

Conditions for Effective Modeling

Different steps are involved in observational learning or modeling. The steps are: attention, retention, reproduction and motivation. These conditions are required for effective modeling. Following is a brief description of facilitating factors of observational learning.

Attention: To learn, one has to pay attention and it is determined by different factors – characteristics of observer (interest, belief) and model (status, respect, credibility etc.) - and functional value of message.

Retention: Remembering what is attended to. This can be ensured by repetition, rehearsal, images, clarity and multiple ways of presentation. This is also influenced by the characteristics of the observer and model.

Reproduction: It depends on cognitive and physical abilities to perform the behavior of the model. Mastery in skills to imitate the behavior is required.

Motivation: It refers to will to perform the behavior. If the observer i.e. student feels that the matter is important, rewarding and useful, he/she will imitate.

According to Bandura (1997), when people mentally rehearse or actually perform modeled response patterns, they are less likely to forget them than if they neither think about them nor practice what they have seen.

Principles of observational learning

- Learning will be high if the observed behavior is first rehearsed symbolically and then enacting overtly. Coding the message into words and images facilitates retention than simply observing.
- Individuals are more likely to acquire and practice life skills if the outcome's value is high or if the skill is more beneficial to the observer.
- People are more likely to adopt modeled behavior if the model is similar to the observer. For example, boys are more likely to follow the behavior of another boy or male role models and not the behavior of girls.
- The more an observer likes or respects the model, the more likely they are to replicate model' behavior. Awareness generation among students by the people of respect will be more effective.

Parent-Teacher Meetings

In many schools there is a practice of conducting parent-teacher meetings. These meetings are also appropriate forums for creating awareness about life skills education among parents. As parents are effective change agents, special orientation programmes may also be organized by the school management. Parents, in turn, may practice and impart life skills to children.

Summary

Methodology of imparting life skills is a crucial component of life skills education programme as the success depends on teaching techniques. There are different ways of teaching life skills and single mode of instruction is not effective. For efficient learning, information has to be presented in multiple ways. Howard Gardner, proponent of Multiple Intelligence Theory, stated that the broad spectrum of students and perhaps the society as a whole would be better served if disciplines could be presented in a

number of ways. He has also explained that students possess different intelligences and therefore learn, remember, perform and understand in different ways. He identified eight intelligences, namely Verbal/linguistic intelligence, Logical/mathematical intelligence, Visual/spatial intelligence, Body/kinesthetic intelligence, Musical/rhythmic intelligence, Interpersonal intelligence, Intrapersonal intelligence, and Naturalist intelligence. He stated that every intelligence or talent is a learning style. Similarly, social learning theory developed by Albert Bandura has much relevance to life skills education programme. Students can acquire knowledge, skills and attitudes through observational learning or modeling. He has identified different models like live model, symbolic model and verbal model. Effective modeling or learning depends on four factors - attention, retention, reproduction and motivation. Modeling approach can also be used to teach life skills to students. The VAK model has three components – auditory learning, visual learning and kinesthetic learning. Multiple ways of teaching coupled with the presentation of information in accordance with the learning styles of learners facilitates effective learning of life skills. .

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I had the privilege of being invited twice as a DAAD (German Academic Exchange Service) Visiting Professor to teach the Master's students of Julius Maximilian University, Wurzburg, one of the oldest and reputed universities in Germany. The visit materialized mainly due to the initiative taken by Professor Regina Egetenmeyer, who is deeply interested in promoting internationalization. With the support of DAAD and the India Centre at Wurzburg, she has been quite successful in promoting cooperation between India and Germany.

During my visit in November 2016, I designed and taught the course ***International Networks and Organizations in Adult and Lifelong Learning***. During my earlier visit of three months duration, I designed and taught three courses namely ***International Perspectives on Adult and Lifelong Learning***, ***Global Perspectives on Innovations in Adult Education*** and ***Asian Perspectives on Participatory Lifelong Learning and Information and Communication Technologies***. I noticed that universities in Germany prefer to use the term seminar in place of course.

From the beginning, I could feel that the entire teaching -learning process is planned in a professional manner at the J.M. University. Unlike India, where some broad topics and a reading list is given for different courses, in Germany the learning outcome for each seminar is spelt out so that the students could know in advance how they would be benefitted from the seminar. The schedule of lecture is prepared in advance specifying the topic of different lectures, date, time and classroom where the lecture would be held. All these details and materials related to the seminar are uploaded on the university website three months in advance so that the students could decide about the choice of seminar depending on their interest and convenience. A brief CV and the photo of the teacher are also given so that the students get to know the academic background of the teacher. Questions related to the course can be asked in the question-forum on the university website.

Each seminar comprises of 12-16 lectures of two hours each per week. Since I had offered three seminars during the three months, the classes were held every alternate day. Sometimes, two lectures are held in continuity depending on the convenience of students who are generally employed.

Instead of following the traditional method of lectures, I had negotiated the transaction of curriculum with the students with a view to seeking their opinion. All of them did not want long lectures which they considered to be monotonous. As per discussion, the following methodology was adopted to teach the topics - after I

introduced the topic with the help of power points for about 30-40 minutes, the students were given 15-20 minutes to read some basic reading material comprising of not more than 10 pages already uploaded on the website so that they could get more clarity and I could be sure that the students have read some basic text in the class. This was followed by a relevant video presentation where an expert in the field would discuss some aspects connected with the topic. While the written matter introduced the students to the scholarly publication, the video familiarised the students with the experts in the field and gave them an opportunity to see and listen to them. This was followed by group discussion where 4-5 students formed a group and discussed various issues identified in the topics. This was done to enable the students practice peer group discussion and working in a group. Subsequently, group reports were presented and followed by open discussion in the class. Since all the students had laptop with them and classrooms had Wi-Fi and technologically well equipped, teaching-learning process was very smooth. During the last ten minutes students were asked to write down the main points covered in the topic based on recapitulation. After the class, the students could refer other reading materials available in the library and prepare detailed notes. As a teacher, I intervened whenever necessary and helped the students acquire relevant knowledge and in the process helped them develop different competencies of listening, reading, writing, discussion, working in groups, and presentation during the session. The students appreciated this methodology and reported that it helped them derive maximum benefits within two hours of attending a session in an interesting and participatory manner. Examination was based on the submission of 15-20 pages essay on a topic selected in consultation with the teacher. The students are given detailed guidelines on writing the essay and its evaluation. Each student is required to submit a certificate of self-declaration that the essay is self-written and not plagiarised. The assignment is uploaded on the university website.

I had introduced book review as an important assignment to enable the students develop the competency of critical reading and reflection and make sure that they are familiar with atleast two recent publications related to the seminar. I selected the two recent publications of the UNESCO –viz. *Global Report on Adult Learning and Education* and *Rethinking Education* which are rated highly by scholars in the field of lifelong learning. Although all the students submitted the reviews, I found the reviews written by two students worth publishing and accordingly forwarded them for publication in the *Indian Journal of Adult Education*. I have noticed that the students were regular in attending lectures and came well prepared. Since they were employed and self supporting, they were very serious and committed to studies. I never saw them in a hurry to leave the classroom.

I was quite happy to see the involvement of students in administrative work. The maintenance of attendance sheet and providing technical support to the teacher was entrusted to one of the students who is employed on part time basis by the university. One of the striking features of German university system is a very lean administration.

In Germany the Head of the Department is assisted by two or three students who work on hourly basis attending to several administrative tasks. In some of the Departments of the university, there is only a part time Secretary to manage the office work unlike India where the Head of the Department is assisted by two or three full time staff members.

Field Visit to the UNESCO Institute of Adult and Lifelong Learning (UIL), Hamburg was an interesting aspect of the seminar on *International Networks and Organizations on Adult and Lifelong Learning*. Since the students had already learnt about the role of the UIL, the field visit was aimed at providing them an opportunity to observe its functioning and role in the promotion of lifelong learning and to meet the specialists working at UIL. Students spent a whole day at the Institute listening to presentations by the faculty members on various ongoing programmes and research projects. Students also got a chance to visit the UIL library and Documentation Centre and browse through recent publications. They were also briefed about the UIL scholarships, provision of internship and other research facilities. Subsequently, two students applied and received scholarship. The visit in fact helped the students establish personal contact with some of the staff members of the UIL. During the visit some of the students could also visit the Ethnology Museum located adjacent to the UIL.

The experience of teaching at the Julius Maximilian University not only enriched me professionally but also personally. The opportunity provided me a chance to interact with the students and academics from Germany and other European countries and experience the campus life, familiarise with German culture and taste local cuisine. A visit to Christmas market in the company of the Head of the Department -Professor Regina and the staff and students and tasting hot wine was memorable. It was a pleasant surprise to meet Professor Bruckner, Head of the India Centre who not only spoke chaste Hindi but also organised the Deepavali festival.

The university has an excellent guest house in the city. Since the room had a high speed internet connection, I could work uninterruptedly and stay connected with friends. I enjoyed my stay on the twelfth floor room of the guest house which provided a breath taking view of Wurzburg and the historic monuments, cathedrals, chapels and the sprawling wine yard. Wurzburg being the capital of the German wine region Franconia, it was not surprising that the university owns vineyard which produces high quality wine sold at the university store. Although some of my friends who had been to Wurzburg told me that I may have problem with food, I did not face any issue as the Mensa (university cafeteria) served wide variety of high quality food at a nominal charge. I observed that the Mensa gave further discounts to the students and teachers. Although I visited most of the restaurants in the city, I really liked the Cafeteria on the top floor of Galleria Mall which had a buffet serving a wide variety of vegetarian and non-vegetarian food, delicious pastries and variety of beverages. I was quite surprised to know that a small place like Wurzburg has three Indian restaurants and whenever I visited, I found a lot of local people enjoying food. It

seems that Germans have developed a taste for Indian cuisine. While the quality of food was quite good, it was modified to appeal to European taste by making it less spicy and oily.

Being a small place one could walk around the city visiting several historic monuments like the Marienberg Fortress, Princes' Building, Hofgarten - Wurzburg Court Gardens, Wurzburg Residenz, Museums and churches and leisurely stroll on the banks of the Main river or sip wine on the old Main Bridge which seems to be the most sought after meeting place for many. Some of the cathedrals have special prayer rooms in the basement where one could pray or meditate. The serene atmosphere in the elegant churches provided a peaceful place and time for reflection. Although I regularly visited in most of the churches for meditation, I felt special vibrations in Kappele Würzburg which is a picturesque chapel located on a hill top and known as a pilgrimage centre because of its healing powers.

Since I had free weekends and Christmas holidays, I travelled extensively in Germany by purchasing the German Railway Pass available for non-Germans at a highly subsidised rate. As suggested by a student, I travelled to Rome and spent the Christmas day at the main church where Pope delivers Christmas sermon. I also visited Prague which is a historic place bustling with tourists. Since I travelled by bus from Prague to Wurzburg, I could see the beautiful countryside and on the way, had a stopover at Nuremberg, another historic place worth visiting near Wurzburg.

Although most of the local people understood English, the taxi drivers were not conversant in English and hence I always showed a slip on which the address of the place where I wanted to go is written so that they had no difficulty in understanding. The availability of bus near the guest house made my travel to university very comfortable. Travelling around the city was no problem because of the availability of Tram which invariably was on time as mentioned in the time table. With a monthly pass one could travel around the city. Hardly the pass was checked by the driver or anybody. During my three months stay, I never saw any inspector checking the pass. Honesty and punctuality seems to be an integral part of German culture. Though a new place, I felt quite safe walking around the city even late night unlike many cities where one may not dare to go out at late hours. I found Wurzburg to be very safe, beautiful and clean city.

Following are the details of the three seminars:

Seminar-1

International Networks and Organizations in Adult and Lifelong Learning: Aims, Main topics and Learning outcomes

The course aims at providing an overview of important international organizations and networks in the field of adult and lifelong learning in different countries focusing

on their programs, researches and publications. A brief discussion on theoretical perspectives covering different theories of globalization and the emergence of knowledge society will help the students analyze the functioning of different global networks and develop a comparative perspective. The course would also discuss selected innovative projects undertaken by these organizations with a view to motivating the students to undertake comparative studies and learning from other countries and cultures. It is expected that the course would not only help the students to acquire a broader global perspective on the developments in the field of adult and lifelong learning but also motivate some of them to undertake further studies related to these organizations. An important part of this course will be a field visit to the UNESCO Institute for Lifelong Learning (UIL) in Hamburg with a view to familiarizing the students with actual functioning and programs of the Institute and providing them an opportunity to personally meet and discuss with specialist working on different country projects and explore the possibilities of internship at the UIL.

I have found that the students in Germany were regular in attending lectures and came in time and well prepared. Since they were employed and self-supporting, they were very serious and committed to studies. They were never in a hurry to leave the classroom after the lecture

Main topics

- A. Theoretical Perspective on the Study of Global Organizations & Networks - discourse on cultural theories of globalization.
- B. Networks & Organizations having primary interest in Adult & Lifelong Learning
- (i) Adult Learning Documentation and Information Network (ALADIN) of the UNESCO Institute for Lifelong Learning;
 - (ii) The International Council for Adult Education (ICAE);
 - (iii) The ASEM Education and Research Hub for Lifelong Learning;
 - (iv) European Society for Research in Education of Adults (ESREA);
 - (v) World Literacy of Canada.
 - (vi) Institute for international cooperation of the German Adult Education Association. (IIZ/DVV).
 - (vii) European Association for the Education of Adults (EAEA).
 - (viii) The Asian South Pacific Association of Basic Education (ASPBAE)
- C. Networks & Organizations having limited interest in Lifelong Learning
- (ix) OECD
 - (x) UNESCO
 - (xi) WORLD BANK
 - (xii) ACTIONAID
 - (xiii) Commonwealth Foundation

(xiv) Commonwealth of Learning

Note: Each of the above networks/organizations will be discussed in terms of their objectives, programs, researches, publications and role.

- D. Field visit to the UNESCO Institute for Lifelong Learning, Hamburg.
- E. Reflections on field visit.

Learning outcome

It is expected that at the end of the course, the students will be able to:

- acquire knowledge and understanding about the programs of different international organizations and networks;
- analyze selected activities of international networks in the light of globalization theories;
- identify areas of further study and research ;
- explore the possibilities of future association with some of the institutions and develop a global perspective on adult and lifelong learning;

Seminar - 2

Global Perspectives on Innovations in Adult Education: Aims, Main topics and Learning outcomes.

This seminar aims at providing an analytical framework for the study of innovations in adult education. Promoting creativity and incentivizing innovations through our educational institutions is a first step towards broadening and deepening the impact of innovations in our society and economy. Diffusion of Innovations offers valuable insights into the process of social change: What qualities make an innovation spread successfully? Why do certain innovations spread more quickly than others? And why do others fail? The course will not only help the students understand the discourse on innovation and change but also develop an analytical insights into various dimensions with reference to selected case studies from the regions of Asia, Arabia ,Africa, Latin America , Europe and North America.

Main topics

- A. Innovation theory & diffusion of innovations.
- B. Concept of Innovation& Empirical Models.
- C. Discourse on innovations.
- D. Role of technology in innovations.
- E. Challenges of adoption of innovations.

- F. Selected case studies of innovations in adult education from different regions of Asia, Arabia, Africa, Latin America, Europe and North America.

Learning outcome

After the course, the students are expected to:

- have an understanding of innovation, selected innovative programmes of adult and lifelong learning in different countries;
- develop comparative perspectives on adult education in Europe, Africa, Arabia, Asia, Latin America and North America.
- draw insights to evolve new strategies towards tackling the problem of illiteracy in Germany

Seminar-3

Asian Perspectives on Participatory Lifelong Learning and Information and Communication Technologies

This course aims at providing an introduction to those students who are interested in having a non-European perspective on adult and lifelong learning policies and programmes with a special focus on a developing country in Asia—India. As a prelude to discussing different themes, the course will cover brief discussion on theories of social change and development discourse. This may help students understand the dynamics of social transformation through educational interventions.

Main topics

- A. Theories of social change
- B. Development discourse
- C. Definitions, terminologies & basic concepts related to literacy, adult education, lifelong learning and Information and communication technologies.
- D. Global context and challenge of literacy & impact of literacy on development
- E. Society, literacy and development in Asia
- F. A case Study of development of adult education in India-1: Historical Perspective,
- G. Case study of development of adult education in India-2. Policy and Planning of Adult and Lifelong Learning Programmes
- H. Innovative programmes-literacy campaigns & *Mahila Samakhya* (Women's Empowerment
- I. Training of Adult Educators
- J. Role of Information & Communication Technologies in adult education in India

K. Participatory research method

Review of two films on literacy campaigns in India followed by discussion.

Learning outcome

After the course the students are expected to:

- have better understanding of the magnitude and problem of illiteracy in developing countries specially India;
- acquire knowledge and understanding of the policies and innovative programmes of adult and lifelong learning in Asia with special focus on India;
- develop comparative perspectives on adult education in Europe and Asia
- draw insights to evolve new strategies towards tackling the problem of illiteracy among migrant community in Europe

Elaborate reading list is provided for all the seminars and it was in two parts. While part one formed essential readings of not more than 30-50 pages per topic, the second part had books covering further information. To facilitate easy access, the reading materials are given in Pdf files which the students can download in their laptops and read at their convenience.

Adult Education aims at extending educational options to those adults who have lost the opportunity and have transcended the age of formal education, but now feel a need for learning of any type including basic education (literacy), skill development (vocational education) and equivalency. The main focus of Adult Education has been primarily on 'basic literacy'. In the words of Kofi Annan, former Secretary General of UNO, "Acquiring literacy is an empowering process, enabling millions to enjoy access to knowledge and information which broadens horizons, increases opportunities and creates alternatives for building a better life".

Literacy is the most essential prerequisite for individual empowerment. A new thrust has been given to adult literacy in the National Policy on Education 1986 and the Plan of Action 1992, which advocated a three pronged strategy including adult education, elementary education and non-formal education to eradicate illiteracy. For the accomplishment of this objective, a series of programmes have been introduced since the first Plan period, the most prominent being the National Literacy Mission (NLM), launched in 1988 to impart functional literacy to non-literates in the age group of 15-35 years in a time bound manner. The National Literacy Mission was set up in 1988 with an initial target to make 80 million persons literate by 1995, which was later enhanced to 100 million by 1997 and the revised target was to achieve a threshold level of 75% literacy by the end of the Tenth Plan period (2007).

By the end of the 10th Plan period, NLM had made 126.64 million persons literate, of which 60% were females, 23% SCs and 12% STs. A total number of 597 districts have been covered under Literacy programmes: 95 under Total Literacy Campaigns (TLC), 174 under Post-Literacy Projects (PLP) and 328 districts under Continuing Education Programme (CEP). There are 32 State Resource Centres (SRC) to extend pedagogical support to literacy programmes in the respective states, and 271 Jan Shikshan Sansthan (JSS) have been established to impart skill development training in 36 trades.

The efforts made by the TLCs, PLPs and CEPs to eradicate illiteracy yielded commendable results, which indicated an increase of 12.63%age points in literacy in 2011, the highest increase in any decade. As per Census 2011, the literacy rate increased from 64.84% in 2001 to 72.99% in 2011 (8.15 %age point increase). Female literacy increased from 53.67% to 64.64% i.e. at a faster rate (10.97%age point increase) than that for males which increased from 75.26 in 2001 to 80.89% in 2011 (5.63%age point increase). Gender gap in literacy declined from 21.59%age points in 2001 to 16.25 %age points in 2011.

Saakshar Bharat

In the context of Government's overall policy aimed at empowerment of women and in recognition of the fact that literacy, especially female literacy, is a pre-requisite for socio-economic development, it was considered imperative to recast NLM with a renewed focus on female literacy. In view of the fact that female literacy is a force multiplier for all actions for social development, on formation of the new Government, the then President, in her address to the Parliament on 4th June, 2009, which articulated the agenda for the government for the period from 2009-2014, stated, "While male literacy went up to over 75% in the last Census and is expected to be higher now, female literacy was only 54% in 2001. Government has recast the National Literacy Mission as a National Mission for Female Literacy to make every woman literate. Increased female literacy is expected to become a force multiplier for all the social development programmes." In the context of Government's overall policy aimed at empowerment of women and in recognition of the fact that literacy, especially female literacy, is a pre-requisite to socio-economic development, it was considered imperative that the National Literacy Mission (NLM), as a programme instrument, is recast with a renewed focus on female literacy. In synergy with Government's umbrella Programme of "Bharat Nirman", it was decided to call the new Mission as "Saakshar Bharat" (Literate India).

In view of multiplier impact of literacy across all sectors of the economy, "Saakshar Bharat" has been categorized by the Government as a Flagship Programme. This programme covers all adults in the age group 15 and beyond though its primary focus is on women and encompasses 26 Crore illiterate and neo literate population of the country. The Prime Minister launched *Saakshar Bharat*, a centrally sponsored scheme, on 8th September, 2009 on the International Literacy Day to impart functional literacy to 70 million adults in the age-group of 15 years and beyond. The scheme was operationalized w.e.f. 1st October, 2009. Saakshar Bharat Scheme aims at establishing a Fully Literate Society through improved Quality and Standard of Adult Education and Literacy. The main goals of the mission include: Raising literacy level to 80% from 73% in 2011; Reduce gender gap in literacy to 10% points (from over 16% points in 2011), Bridge regional and social disparity in literacy level. The principal focus of the Saakshar Bharat Programme is on the Women, SCs, STs, Minorities, other disadvantaged groups and adolescents in the rural areas of low literacy districts.

Objectives of Saakshar Bharat

- (i) Impart functional literacy and numeracy to non-literate and non-numerate adults.
- (ii) Enable the neo-literate adults to continue their learning beyond basis literacy and acquire equivalency to formal educational system.
- (iii) Impart non and neo-literates relevant skill development programmes to improve their earning and living condition.

- (iv) Promote a learning society by providing opportunities to neo-literate adults for continuing education.

Distinctive Features

The coverage of the beneficiaries under the Scheme is primarily women belonging to the deprived sections of the society. Accordingly, the principal target of the programme is to impart functional literacy to cover 14 million Scheduled Castes, 8 million Scheduled Tribes, 12 million Minorities and 36 million others. The overall coverage of women is 60 million out of 70 million non-literate adults in the age group of 15 years and above. It aims to further accentuate Adult Education, especially of women in the age group of 15 and above, because female literacy is a crucial determinant of educational attainments and development. The Mission will cover 1.5 million adults under basic education programme and an equal number under vocational skill development programme. During the Twelfth Plan, Saakshar Bharat has given special focus on young adults and Out of School Adolescents (15–19 years).

The Saakshar Bharat Programme is operational in districts, including new districts carved out of erstwhile districts, that had adult female literacy rate of 50 per cent or below, as per 2001 Census. In addition, all districts affected by extremist violence, irrespective of their adult female literacy rate, were also eligible for coverage under the programme. Accordingly, a total of 410 districts including 35 Left Wing Extremism Affected districts were identified as eligible for coverage under the programme. In view of the 73rd Constitutional amendment, Saakshar Bharat has been implemented through Panchayati Raj Institutions. Out of 410 districts eligible for coverage under Saakshar Bharat Programme, 404 districts in 26 States and 1 Union Territory covering about 1.63 lakh Gram Panchayats (cluster of Revenue Villages) have since been covered. About 1.57 lakh Adult Education Centres (AECs) have been set up to provide Continuing & Lifelong Education opportunities including library services and other logistic support for the programme at Gram Panchayat level.

Saakshar Bharat has adopted volunteer based approach to impart basis literacy. Innovative features of Saakshar Bharat include, besides focus on women, adoption of learner centric pedagogical approach, lifelong learning needs of learners, teaching in mother tongue, alternative approaches to literacy, decentralized and devolved management; increased role of the elected Panchayati Raj Institutions (Local Self-Government), good governance, effective use of ICT, scientific assessment of learners, and convergence with other related programmes.

Saakshar Bharat Programme aims to (i) provide opportunity to meet all types of learning needs and focus on inclusion with programmatic intervention by eliminating barriers to participation through ICT, awareness, and mobilization; (ii) strengthen Adult Education & Skill Development Centres to meet local needs of adults; (iii) remodel existing programme structures at all levels with active involvement of public authorities,

CSOs, private sector, community etc; and (iv) develop objective criteria to assess learning outcomes, skill development, prior learning and equivalency.

For smooth and effective implementation and monitoring, Saakshar Bharat provides for:

- Constitution of Saaksharta Samitis at Gram Panchayat, Block and District level, apart from SLMA at State level;
- Opening of one Saving Bank account at State (SLMA) level and subsidiary accounts at district, Block and Gram Panchayat level;
- Auto shift of balance in the account to the fixed deposit to earn high interest rate;
- A household survey is required to be conducted by the States to identify the potential learners;
- Apart from identifying the potential learners, the States are also required to identify the voluntary teachers for conducting the literacy class and do matching – batching during the survey;
- Merger of erstwhile Nodal Continuing Education Centers (NCECs)/Continuing Education Centers (CECs) to establish one Adult Education Centre (AEC) in each Gram Panchayat;
- Setting-up of new AEC, where there were no NCECs/CECs under the erstwhile Continuing Education programme.

Teaching - Learning activities/Assessment and Certification of Basic Literacy

Basic Literacy implies achievement of self-reliance in Reading, Writing and Arithmetic (Numeracy) and becoming aware of the causes of the one's deprivation. The programme entails identification of non-literates through a survey, area wise mapping of their learning needs and imparting them instructor based teaching of about 300 hrs spread over 3 months or beyond depending on motivation of the learners and local conditions. A volunteer acts as a mobiliser, trainer and teacher and is responsible for imparting literacy to on an average to 8-10 learners.

Scientific Assessment and Certification of the competency levels of adults is a unique innovation introduced for the first time in the history of literacy movement in India. Only an adult, who conforms to prescribed competency levels in reading, writing and numeracy, is certified as literate. Assessments are conducted through a system developed by the National Literacy Mission Authority (NLMA) in consultation with National Institute of Open Schooling.

Learners are assessed in reading, writing and arithmetic skills. Assessments are also designed to gauge the learner's general awareness, including that of social issues. Learners who score 40% marks in all three components are declared successful and given a certificate jointly by NLMA and NIOS. Candidates who are not able to succeed are given further chances to improve the grade in the skills in which they have not been successful. This type of assessment improves confidence

in neo-literates and opens up avenues for them. This also lends robustness and credibility to the programme. Bi-annual assessments are conducted every year on pre-decided dates in the month of August and March.

Hallmarks of the scheme

- Gender treatment of the entire programme;
- Targeted approach for women, SC, ST, minorities;
- Emphasis on quality;
- Context specific and group specific approaches;
- Collective and individual incentivization;
- Convergence and partnership;
- Efficient management system and implementation role of PRIs.

The Mission aimed to ensure Total Quality Management by way of developing Core Curriculum Framework for Adult Literacy, ensuring Quality Teaching-Learning Material, improving Quality of Literacy Educators, Resource Support and Augmenting the Quality of Teaching and Learning. Since the first objective of the Saakshar Bharat Programme is to impart functional literacy to the non-literate adults, and as a relevant curriculum is conducive to ensure better learning outcomes in the prescribed timeframe, a need was felt for standardization of its quality benchmarks.

The curriculum needs to reflect the national values like national integration, secularism, democracy, scientific temper, women's equality, conservation of environment and reproductive behavior etc, it also needs to be ensured that the curriculum addresses the demands of the learners and taking into account the diversity of their socio-cultural background, life experience, linguistic skills and motivational levels. Also, contents of the primers need to be such that they relate to the context of livelihood of learners, their social and cultural realities and special issues on thematic aspects, such as MGNREGA, RTI, PRIs, PMJDY, PMSBY, health & hygiene, environment building, agriculture, etc.

Quality Assurance Committee

To ensure uniformly high standards, NLMA decided to set up a Quality Assurance Committee of Experts to assess the quality and linguistic aspects of the teaching learning materials produced by the State Resource Centres and others. The mandate of the Committee is to critically examine the primers/other materials referred to it for recommendation and to suggest ways and means for promotion of quality materials for non-literates/neo-literates. The Committee keeps in mind the following issues while examining the primers:

- a) Whether the topics in the primers have been arranged in a logical sequence and they have coherence/unit of thought within each part for proper comprehension.

- b) Whether overall learning load is within the comprehension level of adult non-literates.
- c) Whether core contents and local contents are relevant to the learners and they do have relevance with social and cultural background of the adult non-literate learners.
- d) Whether suitable illustrations based on the messages have been incorporated in the texts taking care of the needs of the adult non-literate learners.
- e) Whether components of 3R's i.e. literacy, numeracy, exercises/drills and periodical tests have been appropriately incorporated with adequate space for practicing the exercises/drills.
- f) Whether presentation/treatment of the contents has been done carefully in a scientific temper.
- g) Whether the language i.e. length of words, sentences and paragraphs are within the comprehension level of the adult non-literate learners.
- h) Whether the information and knowledge given in the lessons is correct and of immediate help to the learners to make them functionally literate.
- i) Whether due importance has been given to cover messages useful for female learners without gender bias.
- j) Whether the material is based on adult psychology/pedagogy/andragogy, since adult learners do not like preaching, but need simplistic solutions to their day-to-day problems. From this angle, presentation of texts should be empathy with respect to sensitive issues particularly concerned with religious issues.

In view of the above, broad criteria for review of primers would be as follows:

- Contents
- Numeracy
- Gender neutrality
- Equity (SCs/STs/Minorities)
- Adult psychology/pedagogy and andragogy
- Illustrations, graphics, design and layout
- Language

Open Learning System in Adult Education through Equivalency Programme

Saakshar Bharat Document emphasizes the importance of Basic Education Programme for the adults who lost the opportunity to access the formal education. The second objective of the Saakshar Bharat Programme is to enable the neo-literate adults to continue their learning beyond basic literacy and acquire equivalency to formal educational system. In the document it is mentioned that arrangement will be made to enable young adults to continue their learning till they are able to achieve equivalence levels with Grade III, IV, V, VI, VII and VIII and beyond in the formal school system or through the Open Learning System. While formulating equivalency

programmes, the life experience and local knowledge systems of the adult learners will be taken into consideration.

The National Literacy Mission Authority has launched the equivalency programme for adults in the selected States in the country. The objective of the Equivalency Programme is to provide an alternative education programme equivalency to formal education system through open learning using distance education mode. NLMA has developed Guidelines on Planning and Implementation of Equivalency Programme under Saakshar Bharat through NIOS. Equivalency Programme has started in the States of Tamil Nadu, Bihar, and Chhattisgarh, etc. during 2016-17.

Major achievements of Saakshar Bharat

The programme has been implemented in a phased manner with optimum utilization of financial resources:

- Coverage of 404 eligible districts out of 410 targeted districts of 26 States and 1 Union Territory.
- By end of March 2017, about 1.57 lakh Adult Education Centres have been set up.
- Teaching learning process has commenced in 57 lakh Literacy Centres.
- 2.82 lakh Preraks have been given orientation and training to organize activities in the AECs.
- 44.45 lakh volunteer teachers mobilized and trained under the programme.
- Basic Literacy Primers in 13 languages and 26 local dialects have been printed and distributed so far for the learners.
- Around 9.10 crore learners have been enrolled under basic literacy up to October, 2016. Saakshar Bharat set up a target to make 7 crore adult learners literate by the end of the 12th Plan. Till August, 2016 around 7.92 crore learners appeared in biannual Assessment Tests held since August, 2010. Out of this, 5.88 crore (4.15 crore females and 1.72 crore males) have successfully passed the Assessment Test conducted by National Institute of Open Schooling and declared literate. The details of Assessment Test conducted in March, 2017 is under compilation

Salient Features of Adult Literacy in the 12th Five Year Plan

- (i) Unlike previous Plans, the 12th Five Year Plan acknowledged the need to redefine literacy in order to bring in a paradigm shift from basic literacy to lifelong learning, essential for survival and enhancing the quality of life.
- (ii) The vision of the 12th Plan underscored the fact that in a technology-driven, knowledge based competitive world, the basic ability to read and write was simply not enough for the purpose of poverty reduction, training for work, increased productivity, greater participation in civic and socio-economic life, and for a better understanding of the surrounding world.

- (iii) The 12th Plan recognized that adults need to learn and manage information and knowledge in a critical and reasonable manner and to learn to search, identify, educate, select and use information.
- (iv) The 12th Plan placed focus on the need for establishing linkages with formal system and for evolving a mechanism for recognizing prior learning and accreditation, for establishing equivalency frameworks for facilitating credit transfer among formal non-formal and informal education, and for horizontal and vertical migration.
- (v) The 12th Plan envisaged that legislation is required to:
- formally recognize forms of education other than formal,
 - to integrate formal, non-formal and informal learning, and
 - for recognition validation and accreditation of learning obtained in non-formal ways in order to promote a systematic life-long literacy and education.

Major Weaknesses in Adult Education Programmes

Major weakness in the implementation of adult education programmes include:

- poor participation of the State governments,
- low motivation and training of Voluntary Teachers/Preraks(motivators),
- lack of convergence of programmes under CEP,
- unimpressive programme contents,
- weak management and supervision structure for implementation of NLM,
- inadequate funding for various components of NLM schemes, and
- extremely low level of community involvement and participation.

Way Forward

The goal of Adult Education is to establish a fully literate society through improved quality and standard of Adult Education and Literacy by extending educational options to those adults who have lost the opportunity and have crossed the age of formal education, but now feel a need for learning of any type including literacy, basic education, skill development and equivalency. This vision places enhanced focus on empowerment, specially awareness and exercise of rights and entitlements under the functional literacy components, and free and flexible basic education equivalent to 10 years of schooling.

Expansion of elementary education, supplemented with implementation of a series of adult education programmes, especially 'Saakshar Bharat' since 2009, led to significant achievements in terms of literacy rate in the country. However, India continues to have around 25.75 crore non-literate persons (9.7 crore males and 16.68 crore females) in the 15+ age group (Census, 2011). Existence of high illiteracy among adults in India has a negative impact on the enrolment of children in schools, the country's economy and its social ethos.

Thus, for the year 2030, India must set a target of achieving 90% literacy for adults up to 45 years of age in the next 3 years, 95% literacy of adults up to 45 years in the next 7 years, and 95% literacy for adults up to 60 years of age by 2030. To achieve these targets, the existing efforts and Schemes should be continued, and in addition, need-based models of adult literacy must be evolved, for instance, continuing education model and integrated vocational education mode.

Challenges

- One in every 10 households without a single literate member, largely among SCs/STs and migrant families (Census 2011).
- One third SCs and two-fifth STs cannot read or write.
- Adult population (illiterate) in urban areas was 47.85 million (Census 2011) - most of these were in 1.08 lakh Slum Enumeration Blocks.
- No literacy programmes for illiterates of urban areas and of non-SB districts – need for modified strategy to reach the unreached.
- Need for a paradigm shift in policy to recognise adult education as an autonomous stream of education

Future Strategies

- Reinstating SRCs and JSSs as organs of Civil Society with the ability to assess the learning needs of their area and develop programmes accordingly, and adhering to the overall goals of literacy and value framework
- Instituting awards for the best innovations in promoting adult literacy on the lines of National and State awards for teachers, sportspersons, artists
- Use ICT to prepare relevant modules in aid of adult literacy. Develop video modules to motivate learning of banking techniques and digital payments
- Bring in NSS Units and NYKS with their youth clubs for literacy promotion activities
- Involve youth and women's organisations, particularly SHGs, to participate in literacy programmes.

Role of ICTs in fostering Internationalism in Education

There is increasingly rapid proliferation of ICT in education in India, both rural and urban. Mobile phone density and TV households is on the rise. Each village is being optic fibred and will get internet connectivity within the next five years. The National Knowledge Network is connecting all higher educational institutions. ICTs can be creatively used to close the digital divide – where computer proficiency is not just seen as a marketable skill but one that enables access to information and helps sustain literacy and education skills. ICT and complementary technologies, therefore, will have to be extensively infused in school and adult education system.

ICT as a medium of instruction must be extensively applied to train and develop professional skills of literacy educators and managers. Explicit demand for computer literacy, especially in rural areas, must be recognized and catered to by incorporating computer literacy in the curriculum of functional literacy especially for the young adults. To facilitate increased ICT enabled adult education, it is imperative to provide ICT infrastructure including computers with internet facility at AECs.

Adult education must locate itself within this emerging ecosystem. Explicit demand for computer literacy, especially in rural areas, should be recognized and catered to. ICT, as a tool of transaction, can be effective for imparting literacy, education, information, knowledge, vocational skills of adults, and also for developing professional skills of adult educators and managers.

Lifelong Learning and Adult Literacy

Literacy is the stepping stone to life-long education. Therefore, there is now a strategic shift from adult education to lifelong learning. The Government of India fully recognizes that lifelong learning is today essential for survival and for enhancing people's quality of life, as well as for national, human, social and economic development. It should cover *all learning activity undertaken throughout life-whether in formal, non-formal and informal settings with the aim of improving knowledge, skills and competence within personal, civic, social and for employment related perspective*. Under this new paradigm of lifelong learning and literacy, the focus is not only on non-formal education set up but on establishing strong linkages with the formal system with mechanism for recognizing prior learning and accreditation.

Learning: The Treasure Within

The UNESCO set up in 1993 an International Education Commission for bringing into focus the emerging scenario of education in the 21st Century world. Jack Delores, ex-European Commission Chairman and former French Minister, headed the eponymous Delores Commission which submitted its Report in 1996, which later came to be popularly known as the Delores Report. The Commission was constituted, besides the Chairman, of 15 members from among 185 member countries of UNESCO, including Dr. Karan Singh from India. The Delores Report was aptly titled *Learning: The Treasure Within*. The origin of the title of the Report can be traced to the lines of a poem by the famous French poet La Fontaine, relating the advice given by a wise man to the brothers wrangling over division of property in the family consequent upon their father's death:

*Be sure not to sell the inheritance
Our forefathers left to us,
For a treasure lies concealed therein.*

Learning is the *treasure*. It is an inner quality. It *lies concealed* within the learner. Learning is a treasure within which should be acquired and assimilated throughout one's life in order to achieve a better and higher quality of life in as well as to achieve personal aims. The Delores Report envisages *lifelong learning* as a new educational strategy for planning and programming education in the 21st century. Treating learning as the treasure within is the foundation stone on which the *four pillars* are to be built upon, viz.

- Learning To Be (indicating Moral Force)
- Learning To Know (Intellectual Force)
- Learning To Do (Skill Force)
- Learning To Live Together and With Others (Social Force).

The Delores Report has identified several emerging challenges to education in the 21st century and categorizing these as the Seven Tensions, viz.

- Between the global and the local;
- Between the universal and the individual;
- Between tradition and modernity;
- Between spiritual and material;
- Between long-term and short-term considerations;
- Between the need for competition and mutual cooperation;
- Between the extraordinary expansion of knowledge and skills and the human capacity to assimilate the expansion of knowledge.

Learning Throughout Life

The Four Pillars and the Seven Tensions are to be contained within the idea of *lifelong learning*. The Delores Report has identified *Learning Throughout Life* as the most significant aspect of education in the 21st century. It is *the* Meta-Recommendation, based on the premise that education is not terminal. Indeed no education worth its name could be. Lifelong Learning involves life-span, life-space, and life-goals. The strategies to lifelong learning consist in achieving meaningful education in the 21st century, viz. learning the treasure within, the four pillars and lifelong learning or learning throughout life.

Literacy Status

Increase in literacy rates

Increase in literacy rates		
	2001	2011
Persons	64.84%	72.99%
Male	75.26%	80.89%
Female	53.67%	64.64%
Gender gap	21.59	16.25

Disparities in Literacy rates (2011)

	Overall	SC	ST	Rural	Urban
Persons	72.99%	66.07%	58.96%	67.67%	84.11%
Male	80.89%	75.17%	68.53%	77.15%	88.76%
Female	66.64%	56.46%	49.35%	57.93%	79.11%

- States with literacy rate below national average (72.99%): UP (69.72%), Andhra Pradesh (67.66%), Jharkhand (67.63%), Rajasthan (67.06%), Arunachal Pradesh (66.95%), Bihar (63.82%)
- Overall adult literacy rate (15-35 age group) is 69.3% [Adult Male: 78.8%, Adult Female: 59.3%]

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Factors Affecting Variations in Utilization of Full Antenatal Care- A Comparative Analysis between Uttar Pradesh and Kerala: Evidences from NFHS-3 Survey

***Binod Jena
Ananta Basudev Sahu***

Deaths during pregnancy and child birth are common among women in the reproductive age groups. Reduction of mortality of women has thus been an area of concern and the governments across the globe have set time bound targets to achieve it. The International Conference on Population and Development in 1994 had recommended reduction in maternal mortality by at least 50 percent of the 1990 levels by the year 2000 and further one half by the year 2015. The Sustainable Development Goals (SDG) has set the target of achieving global maternal mortality to less than 70 per lakh of live births by 2030. In India the promotion of maternal and child health has remained an integral part of the family welfare programme since the time of the First Five-Year Plan, aimed at reducing maternal and child mortality by providing antenatal, natal and post natal care.

Utilization of maternal health services is associated with improved maternal and neonatal health outcome. In India more than 100,000 women die each year due to pregnancy related causes. The Sample Registration System (SRS) indicates that the major causes of maternal mortality continued to be unsafe abortions, ante and post-partum haemorrhage, anaemia, obstructed labour, hypertensive disorders and post-partum sepsis. Deaths due to abortion can be prevented by increasing access to safe abortion services and deaths due to anaemia, obstructed labour, hypertensive disorders and sepsis are preventable with provision of adequate antenatal care, referral and timely treatment of complications of pregnancy, promoting institutional delivery and postnatal care. Lack of proper ante natal care also leads to high pregnancy wastage and low birth weight which is the major determinant of mortality, morbidity and disability in infancy and childhood and also has a long-term impact on health outcomes in adult life. The consequences of poor nutritional status and inadequate nutritional intake for women during pregnancy not only directly affects women's health status, but also have negative impact on birth weight and early development. Low birth weight also results in substantial costs to the health sector and imposes a significant burden on society as a whole. In states like Kerala where over 90 percent of deliveries are in institutions resulting in lowest rate of maternal mortality, neonatal and infant mortality. However, in states like Uttar Pradesh (UP) where majority of deliveries is at home and are conducted by untrained persons, both maternal, neonatal and infant mortality is one of the highest.

Review of Literature

Studies demonstrating the high levels of maternal mortality and morbidity in developing countries have repeatedly emphasised the need for antenatal care and availability of trained personnel to attend women during labour and delivery. In spite of the importance of maternity care, poor access and low utilization of such services continued to be important determinant of mortality and morbidity throughout the world (Bhatia, 1989). Utilization of maternal health services has been identified in a number of studies as important factors determining maternal, infant and child mortality (Holian, 1989, Bhandari et al., 1989, Paul, 1991). Utilization of maternal and child health services (MCH) also has strong effects on subsequent contraceptive use and thus helps in reducing the fertility (Hotchkiss et al., 1999). Empirical studies on preventive services have often found maternal care utilization is more strongly correlated with demographic and socioeconomic characteristics (Hingson et al., 1976). Many studies in developing nations have found a strong maternal education on the use of maternal and child health services (Rutstein et al., 1990, Canovas, 1991). A recent study in Bangladesh shows that middle aged women, women from low family background, higher educated, living in urban areas, exposure to mass media and highest wealth quintile are more likely to receive all maternal health care services than other counterparts (Rahman K.M., 2009). Premarital childbearing and socio-cultural factors such as distance, education, ethnicity and place of residence have impact on maternal care utilization (Gage Anastasia, 1998). A study from a sample of mothers was interviewed between 12 and 18 months after delivery of live born infants shows that among socio-economic variables, maternal education was found to be the single best parameter in terms of detecting differences within the sample with regard to levels of birth control, prenatal care, and child care (Hughes and Schaefer, 1976).

The educational level, economic status and religion of the mother are significant predictors of use of maternal health services (Bhatia, C. Jagdish, 1995). A cross sectional study from 28 districts in rural India shows that there was a statistically significant reduction in the proportion of women obtaining antenatal care services with increasing age, parity, and number of living children. Awareness of care during pregnancy and knowledge of pregnancy related complications were associated with increased utilization of antenatal care services (Saxena and et al., 2006). Factors like educational attainment, parity level, health insurance coverage, ethnicity, household wealth and geographic region are statistically significant factors that affect the use of health care services which are essential to reduce infant and child mortality rates (Celik Y, Hotchkiss DR, 2000). The determinants of women's autonomy in terms of control of finances, decision making power and freedom of movement have significant effect on likelihood of increasing antenatal and safe delivery (Das Gupta M and et al, 2003) and social networks have a significant influence on individuals' utilization of prenatal services (S. Alexander, 1989).

Objectives of the Study

1. To examine the variations in the utilisation of full antenatal care (ANC) by background characteristics of women.
2. To examine the differential impact of socio-demographic factors on utilization of full ANC between Uttar Pradesh and Kerala.

Data Source

To achieve the above objectives, the NFHS-3 data set was used. The National Family Health Survey-3 (NFHS-3) collected information from a nationally representative sample of 109,041 households, 124,385 women in the age group 15-49, and 74,369 men in the age group of 15-54. The NFHS-3 sample covered 99 percent of India's population living in all 29 states. Like NFHS-1 and NFHS-2, NFHS-3 provided important indicators on family welfare, maternal and child health, and nutrition. In addition, it provided information on several new and emerging issues, including family life education, safe injections, perinatal mortality, adolescent reproductive health, high-risk sexual behaviour, tuberculosis, and malaria and HIV/AIDS.

Methodology

Bivariate analysis (cross tabulation) was done for a comparative analysis between UP and Kerala on the basis of percent of women receiving full ANC in different sub-groups of population. Binary Logistic regression analysis had been carried out with dichotomous response variable 'full ANC' [0= not received full ANC and 1= received full ANC] to show the net effect of each independent variable on the dependent variable in terms of odds ratio. The odds ratio of the reference category was one. So an odds ratio of less than one indicated less likelihood of receiving full ANC and an odds ratio of greater than one indicated more likelihood of receiving full ANC with respect to the reference category.

Variables Selected for Analysis

The dependent variable was full ANC. A woman is said to have received full ANC when she had at least three antenatal visits for pregnancy checkups, received at least 90 IFA (Iron and Folic Acid) tablets and taken at least 2 TT (tetanus toxoid) injections. The independent variables were place of residence, caste, religion, wealth index, level of education, occupational status, mass media exposure, age of mother and birth order.

Results and Discussion

Socio-economic differentials in utilization of full ANC

Table-1 shows how the percentage of women received full ANC varied by

background characteristics of women during 2005-06. There was a large variation in the overall utilization of full ANC between the two states. In UP only 5.5 percent of total women received full ANC whereas in Kerala it was 69.5 percent. Utilization of full ANC varied with changes in place of residence. In rural UP only 3.7 percent of women received full ANC whereas, in urban areas it was 12.5 percent. In Kerala, the corresponding figure in rural areas was 68 percent and in urban areas was of 72.6 percent. So the rural-urban variation was larger in UP compared to Kerala. In UP, the level of education had tremendous effect on the utilization of full ANC. With increase in the level of education the utilization of full antenatal care also increased. The percentage of women received full ANC in UP was just 1.8 percent among no education category and it increased to 32.3 percent in higher educated category. Whereas in Kerala, the percentage of women received full antenatal care was 50 percent in no education category compared to 78 percent in higher educated category. Both in UP and Kerala, the least percentage of Muslim women had received full ANC in comparison with Hindus and others.

Table - 1
Percentage of Women received full ANC, NFHS-3, 2005-06

Women's background characteristics	Percentage of women received full ANC, NFHS-3 (2005-06)	
	Uttar Pradesh	Kerala
Place of Residence		
Rural	3.7(146)	68.0(370)
Urban	12.5(128)	72.6(188)
Level of Education		
No Education	1.8(56)	50.0(6)
Primary	5.1(27)	41.5(17)
Secondary	11.7(118)	68.9(379)
Higher secondary & above	32.3(73)	78.0(156)
Religion		
Hindu	5.9(231)	74.0(284)
Muslim	3.7(38)	60.0(189)
Others	18.2(4)	81.7(85)
Social Groups		
SC/ST	2.7(35)	64.9(61)
OBC	4.7(119)	71.1(182)
Others	11.0(119)	70.2(236)
Wealth Index		
Poor	2.2(60)	51.3(20)
Middle	2.5(24)	66.7(56)
Rich	14.5(188)	70.9(482)
Occupational Status		
No Work	6.2(211)	68.4(449)
Primary	2.9(40)	71.7(33)
Tertiary	15.1(22)	75.0(75)
Mass Media Exposure		
No Exposure	1.6(28)	53.6(15)
Exposure	7.6(245)	70.4(543)
Mother's Age at Birth		
<19 yrs	4.4(18)	62.5(15)
19-35 yrs	6.0(247)	69.9(526)
35-49 yrs	2.0(8)	63.0(17)
Birth Order		
1	11.2(104)	74.5(240)
2-3	6.5(121)	68.7(299)
4 & above	2.2(48)	41.3(19)

Source: Calculated from NFHS-3 data set, 2005-06

In UP and Kerala among the social groups, women from SC/ST community had the lowest percentage of full ANC utilization compared to Other Backward Caste (OBC) and other caste. Similarly, with increase in wealth index, the percentage of women received full ANC also increased. In UP, the utilization of full ANC was 2.2 percent among poor women and it increased to 14.5 among richer women. The corresponding figures in Kerala were 51.3 percent and 70.9 percent respectively. Similarly, in both the states women working in tertiary sector had higher percentage of full ANC utilization compared with non-working women and women working in primary sector.

Mass media exposure had a great impact on the utilization full ANC. In UP, the percentage utilization was 7.6 percent among women who were exposed to mass media compared to non-exposed women (1.6%). Similarly in Kerala the utilization was 70.4 percent among women exposed to mass media compared to non-exposed women (53.6%). With regards to age of mother it was found that the full ANC utilization was higher among middle aged women (19-35 years) compared to younger (<19 years) and older women (35-49 years). With increase in birth order, the percentage of women received full ANC declined in both the states. In UP, for single birth order women the utilization of full ANC was 11.2 percent and it declined to 6.5 percent in 2-3 birth order and further declined to 2.2 percent in 4 and above birth order. Similarly, in Kerala, for single birth order the percentage utilization was 74.5 percent and it declined to 41.3 percent in 4 and above birth order.

Determinants of full ANC

Table-2 shows the result of the logistic regression analysis. Here the net impact of each factor on the utilization of full ANC has been assessed in terms odds ratio. In the regression model of UP, factors like place of residence, education, social groups, wealth index and birth order had significant impact on the utilization of full ANC. But in Kerala only two factors - religion and birth order had significant impact on the utilization of full ANC. In UP, women residing in rural areas had 31 percent less likelihood of receiving full ANC compared to urban areas. Education had greater impact on the utilization of full ANC.

Women with primary education had two times more likelihood of receiving full ANC compared to women with no education. Similarly, women with secondary education had more than three times higher likelihood of receiving full ANC. The likelihood of receiving full ANC was nearly 7 times higher among women with higher secondary and above education compared to women with no education.

Among social groups women from OBC and other caste group had higher likelihood of receiving full ANC with reference to SC/ST women. Women from richer section had nearly two times more likelihood of receiving full ANC in comparison to poor women. Like as, women with more number of children had less likelihood of receiving full antenatal care. Women with two and three children had 40 percent less chance of receiving full ANC and with four and more children had 56 percent less chance of receiving full ANC with reference to women with one child. In Kerala, Muslim women had 49 percent less chance of receiving full ANC in comparison to Hindu women. Similarly, with increase in birth order the likelihood of utilization of full ANC also declined in the state of Kerala. The likelihood of utilization was 28 percent and 60 percent less for two and three birth order and four and above birth order, respectively compared to single birth order.

Conclusion

Maternal health care still remained an important issue as the health of women and children are concerned. The high level of maternal and child mortality across the world has led the global body to set time bound target to achieve the reduction of deaths among women and children. The utilization of maternal health care services is highly associated with improved maternal and neonatal health outcomes. Therefore, governments across the world have emphasised the use of maternal health care services to achieve the above objectives. In India the promotion of maternal and child health programmes has remained an integral part of family welfare since the First Five-Year Plan aiming to reduce maternal and child mortality. The maternal health care services include antenatal care, natal care and post-natal care. The antenatal care is the care given to women during pregnancy and it aims to achieve that all women during pregnancy should take IFA tablets for at least 90 days, receive two or more TT injections and should have three antenatal visits. In this context the present paper tried to study the variations in full ANC utilization across sub-groups of population between the state of Uttar Pradesh and Kerala and to find out the determinants of full ANC. Analysis showed that there was large variation in the overall utilization of full ANC between the two states. In Kerala, 69.5 percent of women received full ANC, whereas in Uttar Pradesh the utilization was just 5.5 percent. Similarly, variations were also observed among various sub-groups of population. Regression analysis showed that many background characteristic of women had significant impact on the utilization of full ANC. In Kerala only two factors - religion and birth order had significant impact on utilization of full ANC, whereas in Uttar Pradesh a number of factors like caste, education, place of residence, wealth index, and birth order had significant impact on utilization of ANC. Among the factors education is the most powerful tool having tremendous effect on utilization of full ANC in Uttar Pradesh. Thus, while formulating health policies for the promotion of maternal and child health care should be given top priority to those subgroups of population where the full ANC utilization was at the low level.

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Women's Political Participation in India

M.C.Reddeppa Reddy

The Universal Declaration of Human Rights states that everyone has the right to take part in the government of her or his country regardless of sex, race, ethnicity, religion or creed. Although, women have made great strides forward in obtaining a vote and right to be elected to political offices in many countries, they comprise less than 15 per cent of the Members of Parliament, and less than 5 per cent of Heads of State worldwide. The global average for women in parliaments stood at 22.4 per cent. While Europe surpasses the global average at 25.2 per cent, Sub-Saharan Africa has an average representation of 22.6 per cent, Asia at 19 per cent and the Arab states at 18 per cent. About 42 countries in the world have 30 per cent or more women MPs in their Parliament.

The Indian Constitution has established a parliamentary system of government, and guaranteed its citizens the right to be elected, freedom of speech, freedom to assemble and form associations, and vote. It attempts to remove gender inequalities by banning discrimination based on sex and class, prohibiting human trafficking and forced bonded labor, and reserving elected positions for women. In spite of these efforts, it is not being translated into politics and legislation in India. Out of the 18 Asian Countries, India's position is a dismal 13th, with countries like the Philippines (27.2%), Vietnam (24.3%) and Cambodia (20.3%) doing much better. The level and forms of women's participation in politics is largely shaped by cultural and societal barriers in the form of violence, discrimination and illiteracy. There is need to establish a suitable environment to enable women to participate in the politics and legislation.

The present paper focuses on women's political participation in India, need for their participation in politics and legislation and various factors contributing for their participation in political leadership. The paper also focuses on the conditions necessary or conducive environment needed for their involvement/participation in politics and legislation and the strategies that to be followed in increasing women's participation in political leadership.

Women's Political Participation in India

Political participation refers to the degree to which citizens are interested in and concerned about politics and public affairs. A broader measure of political participation includes number of women candidates who compete for elections and women elected for state assemblies. According to World Economic Forum's Annual Global gender gap index studies, which considers such a broader scale, India has ranked in top 20

countries worldwide for many years, with 9th best in 2013 - a score reflecting more women's participation in India's political process than Denmark, Switzerland, Germany, France and United Kingdom. But, now India occupies 103 positions among 190 countries of the World. Thus, India ranks 20th position from the bottom in terms of representation of women in Parliament. India lags behind many countries, including its neighbors like Pakistan and Nepal when it comes to women's participation in politics. In India, women occupy just 66 seats (12%) in the 543 member Lok Sabha. The scenario for women Members of Legislative Assemblies (MLAs) across all State Assemblies in India is even worse, with the national average being a pitiable 9 per cent. The best among them, Bihar, Rajasthan and Haryana have 14 per cent representation while the worst states are Pondicherry and Nagaland, which have no women MLAs at all. Similarly, women turnout in voting process and contesting in elections is very low when compared to men. Further, the political endeavors of women, their achievements, and roles in society are hardly recognized or acknowledged.

Need for Women's Participation in Politics and Legislation

Politics is everyone's business and affects the lives of each of one of us. The more women are associated in numbers in political decision making process in governments, the more they can change the modalities and outcomes of policies. The importance of women's participation in politics arises from the fact that 'politics' confers authority to exercise power, to make policies, make decisions and ensure an effective control over government machinery. Madhok Alaka (1995). They also play a crucial role in society as pro-creators of posterity as well as producers of goods and services. The exclusion of women from decision-making bodies limits the possibilities for entrenching the principles of democracy in a society, hindering economic development and discouraging the attainment of gender equality. If men monopolize the political process, passing laws which affect society at large, the decision-making process does not always balance the interests of the male and female populations.

Factors contributing for Women's Participation in Politics

Despite the removal of legal barriers to women's political participation in many countries, the governments remain largely male-dominated. In many countries including India, the rights of women are enshrined in law, and there are no formal legal barriers to women's political participation in politics and legislation. However, in practice various factors are contributing for women's political participation in India. They include: socio-economic factors, geographical, political, psychological factors etc. All women are also not a homogeneous group. There are many differences between them and these differences based on class, race, ethnicity, cultural background and education.

Social Factor

Social factors play a significant role in the recruitment of women to the party positions and legislatures. Political background pushes a person to take part in politics. The social status of women in society influences directly on their participation in political institutions and elected bodies. For example, researchers point to the correlation between women's legislative recruitment and the proportion of women working outside the home, as well as the percentage of women college graduates. The factors that are found to make the most significant impact are employment, gender equality, human capital, the make-up of the population, and human health. The main social factors influencing women's participation in politics are: age, caste, culture and education.

Age Factor

Many researchers have studied the age factor about the political participation and try to know the effect of age structure on political participation. These studies noted that the younger age women are not participation in politics due to their dependency, lack of freedom and financial stability. Especially, Saeed (1976) noted that the low age women's participation was less and high aged women's participation was more in legislative assembly. Usha Mehta (1978) highlighted the political participation of women in Indian Politics and resulted that from first Parliamentary Election (1974), on the basis of bio-data of women members of Parliament belonged to the medium age group. She noted the reason of it that the medium aged women were free from house work responsibilities.

Caste Factor

Number of studies has been conducted and completed on caste status and political power and revealed that higher caste group have more or dominant participation in politics, but comparatively lower caste group have little participation in the political process. K.C. Alexander (1968) reported from Kerala that the Pulaiya caste, which is higher caste has higher status in the society and indicates sharing of position in the local power structure. Sachchidanand (1967) found in the Harijan Elite (the Scheduled caste) that get education and better occupation.

They have participated in the power structure. Mishra S.N. (1980) founded in his study that lower castes are politically unaware and they generally depend on the higher castes for their political guidance. Chakarbarti and Bhattacharya (1993) in their study noted that the leaders mostly come from the family of traditional leaders. Srinivas M.N. also accepted that political background played an important role for participation in politics. Sharma S.S. (1979) found in his study that traditional power holders continue to capture power in the new set -up.

Culture Factor

Politics has traditionally been a male domain that many women have found unwelcoming or even hostile. Societies in which traditional or patriarchal values remain strong may frown on women entering into politics. In addition to dealing with unfavorable cultural predilections, women are often more likely than men to face practical barriers to entering politics, including a paucity of financial resources, less access to information, greater family responsibilities, and a deprivation of opportunities to acquire political experience. With the exception of the close relatives of male politicians, women generally lack the political networks necessary for electoral success.

Education Factor

Education is an 'especially powerful predictor of political participation'. Rajni Kothari (1980) noted that education is an important factor to gain the benefit of political power and administrative power, because education influences the knowledge, consciousness, personality, performance, attitude and skills. It is also evident that formal education is strongly associated with political participation for women and also for men. There are both direct and indirect effects that formal education has upon political participation. Its direct effects include the acquisition of the knowledge and communication skills useful for public debate, and direct training in political analysis through courses. Its indirect effects are many and include the benefits of voluntary engagement in school governance, clubs, sports, and school newspapers; these arenas provide young people with an early apprenticeship for politics, where they can exercise leadership, develop civic skills of cooperation and negotiation, and acquire bureaucratic and organizational skills useful for political activity. Education enhances other factors supporting political engagement, such as access to high-income jobs that provide the resources and contacts for political activity, and access to non-political associations such as charitable organizations or religious establishments that can be a recruitment ground for political activity. It is evident that women are not access to well-developed education / training systems for women's leadership in general, and for orienting young women towards political life.

Economic Factor

Economic factors such as poverty, occupation, income etc., have important role to gain the power in politics. The economic crisis in the country has intensified the risk of poverty for women. Poverty, like unemployment, is increasingly being feminized. Occupation reflects the position and prestige. From the ancient periods higher caste have been belonged to higher occupation and higher position as well as lower caste have been belonged to lower occupation and lower position and prestige. Ghurye G.S., also emphasized in his book 'Caste, Class and Occupation' that the caste reputation related to the caste occupation. Income or financial status helps in

affording of election expenditure of a contesting candidate. Women have no money of their own; the money belongs to their fathers, their husbands or their in-laws. Given the rising cost of running an effective campaign, this poses another serious hurdle for women in the developing world.

Geographical factor

Women move from their father's home to their husband's home . . . They are like refugees. They have no base from which to develop contacts with the people or to build knowledge and experience about the issues. Travelling throughout their area operation requires physical stamina, which the women's biological structure may not be suited. The resource support for meeting expenditure is a problem for women since the father's or in-laws are generally reluctant to spend on their career.

Political Factor

Many women lack of party support, in terms of finance, access to political networks, and the more stringent standards and qualifications applied to women; not getting sustained contact and cooperation with other public organizations such as trade (labour) unions and women's groups; and the nature of electoral system, which may not be favourable to women candidates. The prevalence of the 'masculine model' of political life and of elected government bodies in India is high. Men dominate the political arena; men formulate the rules of the political game; and men define the standards for evaluation. The existence of this male dominated model results in women either rejecting politics altogether or rejecting male-style politics. The most common route to elected office is through political parties. Most candidates depend on parties for their nomination, their base of electoral support, and help during the election campaign, financial resources and continued assistance after their election. While some candidates run for office of political parties independently, it is far more difficult to win election without the backing of a political organization, especially at the national level. Thus, the political party is the most potent instrument in facilitating political participation.

Psychological Factor

Psychological attachment of a person towards political objects certainly determines the extent and gravity of political participation. The psychological factors which are influencing the women in entering politics and elected to political positions are gender ideology, cultural patterns, and predetermined social roles assigned to women and men; women's lack of the confidence to stand for election; and the way in which women are portrayed in the mass media. Lack of confidence is one of the main reasons for women's under-representation in formal political institutions, whether parliaments, ministries or political parties. In some countries, women perceive politics as a 'dirty' game. This has jarred their confidence in their ability to participate in political processes.

Conditions necessary for Women's Involvement/participation in Political Leadership

Certain conditions are necessary and conducive environment needs to be created from grassroots level to the top level for effective women's involvement and participation in political leadership. They include: Societal Development, Gender equality, Political, Educational, Economic and Psychological environments, Technology / Physical Infrastructure etc.

Societal Development/Environment

Factors related to societal development are found to distinguish among qualitatively different levels of women's participation in political leadership. More women in the labor force and in the services sector specifically should lead them to seek out positions of political leadership. Encourage women to advance into political positions; government and public institutions should allocate resources toward the education of both women and men – focus on literacy, basic education and higher education. Overall human development positively affects women's advancement to political leadership. Women's self-esteem and self-confidence, which facilitate women's access to political careers should be improved and also require media attention to women's contributions and potential.

Generally, participation in politics tends to be higher among better educated, members of higher occupational and income groups, middle aged, dominant ethnic and religious groups, people with political family background, settled residents, urban dwellers and members of voluntary organizations. Women can enhance their knowledge about how parties function; what party positions are available; and how to plan political advancement within the parameters of existing party policies and practices. Women must lead the process to organize and mobilize their networks, learn to communicate their interests with their male counterparts and different organizations, and push for mechanisms to enhance their representation.

Gender equity

Gender equality is necessary in the sectors of development. To mainstream gender equality in politics in any country, a clear programme needs to be designed, where entry points for follow-up on gender equality perspectives can be identified. A thorough gender analysis of national context must therefore be made to highlight inequalities, and to take action on promotion of gender equality. Clear operational goals should be set for the programme with regard to strengthening gender equality, IDEA (2003). The tailoring of many of the political institutions is needed according to female standards and political attitudes. Further, ensuring women's equal participation in party decision-making structures is essential for promoting gender equality within them – and, ultimately, within society as a whole.

Political Environment

The overall political environment does influence the entire process of political participation to a great extent. The political environment refers to the nature of the party system, the electoral system, the means of propaganda and campaign, the extent of modernisation and urbanisation, the influence of ideology the general awareness of the people etc. Party support, in terms of financial and other resources, is needed to fund women's campaigns and boost their political, social and economic credibility. Further, legislative regulations for implementing effective quota mechanisms should be designed.

Education and Training

Education has led many women in the society to join political parties or participate in political activities. Education is the most important channel for encouraging women to speak out. In addition to basic education, many women lack the political training required to participate effectively in the political arena. An expansion of the pool of women who are qualified for recruitment to political careers is therefore needed. This can be done by giving women access, from an early stage, to work patterns that are conducive to political leadership, such as special training in community-based or neighbourhood organizations. In order to increase political awareness among women, lobbying skills and networking are important for the process of training women for political careers. Women can be prepared for a political career and encouraged to aspire to such a career. Special attention should be given for the involvement of young women and realizing the importance of collaborating with men. Establishment of centres/institutions and designing of educational programmes will help to prepare women for political careers; and the development of and support for schools / centres for the training of women for participation in electoral campaigns are needed.

Economic environment

Women in political leadership are positively related to economic development. As women become more involved in politics, the economy prospers along with education, health, employment, and gender equality, which all creates a setting for women to prosper and engage in leadership activity. Access to credit signifies an efficient and productive business environment, which may attract women to leadership.

Psychological environment

Political participation tends to meet one's psychological needs of overcoming loneliness. In every society, there are persons who are very much concerned and interested in political affairs and the same time there are persons who have no such concern and interest in political affairs. This difference may be due to the differences in their psychological attitudes. In this situation, it becomes clear that the former are

more likely to be active in politics than the latter. Again, it is generally believed that men are psychologically more involved than women in politics as in their respective field of activity. With confidence and determination, women can reach the highest levels in the political process. That is why women should believe in themselves and should do away with the widespread perception that men have to be their leaders. Encourage women to develop interest in public/political affairs and enable them to change psychological attitude towards politics.

Technological and Physical Infrastructure

Physical infrastructure and technological advancements such as electric power, telephone mainlines, mobile phone subscribers, and international internet bandwidth make society more efficient, which mirrors economic development and these societal advances represent modernity (Lee et al., 2006 and Mrad, 2006) and have a positive impact on women becoming more involved leaders.

Strategies for promotion of Women's Participation in Political Leadership

Advancing of women's political participation requires determined efforts not only by women themselves, but also by the governments, the political parties/leaders, civil society / non-governmental organizations and mass media. If women need to be able to participate fully in all spheres of political and public life on par with men and promoting equal opportunities, the following strategies should be adopted by these institutions:

Government

The government actors should ensure that political party laws and other election-related legislation do not indirectly disadvantage women; consider legislation requiring political parties to adopt democratic procedures for their internal operations; consider temporary special measures requiring political parties to include a substantial proportion of women high on their candidate lists; and provide incentives for political parties to promote women candidates, including resources, training and increased access to broadcast time.

Political Parties and political party leaders

Political parties and party leaders need to do more to support women's political empowerment. The political leaders in particular, play a key role in ensuring that party policies, practices and rules promoting gender equality. Female party members often face barriers to their political advancement due to the non-transparent manner in which parties operate and their own ignorance of the actual rules of the game. The strategies include creating the foundations for gender equality within political parties through founding and procedural documents; acting in a gender conscious manner

with party candidates, members, supporters and voters; ensuring gender-equal access to political party financial resources and campaign funds; making gender a part of a party's electoral strategy; and promoting gender-responsive governance at the national level. Political parties should consider developing, publishing, implementing and monitoring their own party gender action plans, specifying clear performance targets and time-sensitive goals.

Women's wings

In many countries, political parties have established special wings for women that can contribute to their advancement. This mechanism can provide an avenue for women to become active, learn political skills, and develop networks within the party. Women's wings can often influence party positions, especially on issues of special concern to women. They are most effective when linked directly to party leadership and decision-making bodies; when this is not the case, women's wings may lead to the compartmentalization or marginalization of women in the party.

Party Platforms

Another indication of the party's commitment to the advancement of women is its platform. By addressing gender equality and other issues of special concern to women, parties can increase their relevance to women voters and provide a greater incentive for women to become involved in the political process.

Civil society organizations

The civil society organizations exercise pressure on political stakeholders to initiate external and internal reform in support of gender equality and women's advancement. Thus, establish co-operation between political parties and civil society, as well as co-operation between women politicians and civil society, can be an effective method to advance policy agendas in support of gender equality. In many cases, particularly when parties seek to change constitutions or enact legislation to promote women's political empowerment, political parties are most effective when they work closely with civil society organizations.

These organizations can identify women willing to run for office; provide training and other types of support for women candidates; lobby to ensure issues of special concern to women are addressed in party platforms; lobby for legislative changes to advance women's empowerment; develop cross-party networks of women; develop and disseminate gender-sensitive messages for voter and civic education; advocate improved media coverage of women's issues and women candidates; and persuade international donors to support projects aimed at advancing women's political participation.

Non-governmental organizations

More broadly, non-governmental organizations, including women's human rights and community groups, labour unions, and other civil society institutions, can contribute in various ways to the advancement of women's political participation. Priorities may include identifying women to stand as candidates, providing training on dealing with the media and other issues, developing networks to advance women in politics both within the party and across party lines, and assisting with gender-sensitive civic and voter education.

Mass Media

The Non-government organizations together with civil society organizations, media sources and academic institutions, can support women's political advancement through recruitment initiatives, capacity building of women candidates, awareness-raising to combat gender-based stereotypes of women in politics and evidence-based research to facilitate the introduction or amendment of policy and legislative agendas in support of gender equality. The media, and particularly electronic media, play a crucial role in shaping voter interest in and attitudes about an election. The media can provide gender-sensitive coverage of elections, avoiding negative stereotypes and presenting positive images of women as leaders; provide women candidates with at least as much airtime and print space as that given to men; focus attention on issues of special concern to women in news programming; and undertake voter and civic education programmes aimed specifically at women. The way the media portray women, how they deal with issues of special concern to women, and whether they convey effectual voter education messages can have a major impact on women's participation in an election.

Conclusion

Women exclusion from political and public leadership and decision making structures and processes is observed as the result of multiple socio-cultural, economic, and institutional factors. It is concluded that women are not only kept away from higher leadership positions, but also from access to education which makes them to develop skills, and capacitate them with managerial decision making techniques and help them to develop confidence in holding leadership positions. In this paper, women's political participation in India, need for their participation in politics and various factors contributing for their participation in political leadership was discussed. The conditions necessary or conducive environment needed for their involvement/ participation and the strategies that are to be followed in increasing women's participation in political leadership are presented.

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India's Adolescence Education Programme: Status and Opportunities for Scaling-up

*Jaya
Deepti Priya Mehrotra
Sudhanshu Patra
Nalini Srivastava
Asheema Singh
Saroj Yadav*

Adolescence Education in India

Adolescents have tremendous potential. To realize it, they need access to accurate information, youth friendly services as well as support and guidance from significant adults who understand, appreciate and value them. To make healthy transitions to adulthood, adolescents need to successfully navigate physical, psycho-social and emotional changes. This requires growth in emotional and social skills, self-regard, self-knowledge and health awareness (Fisher, 2011). The rapid pace of internal change, coupled with numerous contradictory external stimuli and lack of accessible reliable resources, renders adolescents particularly vulnerable.

There is growing evidence that well designed and implemented Comprehensive Sexuality Education (adapted and contextualized as Adolescence Education in India) may be an effective mechanism to respond to the needs and concerns of young people on issues related to their health and well-being. Several systematic efforts have provided increasing clarity on the key components of effective and context specific programming to achieve this objective (Browne, 2015)(Haberland, 2015). Findings from the National Family Health Survey (NFHS), 2005-06 indicate that in India 56% females and 25% males in the age group 15-24 were anaemic. Among those tested for HIV, one in every 1000 young people in the age-group 15-24 was found to be HIV positive. Findings from Global Adult Tobacco Survey- India (2009-10) show that 18% young people (27% young men and 8% young women) in the age group 15-24 reported use of any tobacco product. These findings indicate the vulnerability of a large proportion of young people in India. The reasons could be manifold. Youth may be poorly informed on several issues related to their health and well-being, or may lack the necessary skills, support and access to youth friendly services to translate their knowledge into safe and responsible behaviours.

Indian society is in transition: globalization, urbanization, rapid economic growth and the extensive reach of media have created tensions in the process of social change and vastly changed the realities of young people as compared to the previous generation. However, social norms have not kept pace with the changing

circumstances. Findings from the National Family Health Survey (2005-06) also show that 53% females and 56% males in the age group 15-24 reported that wife beating was justified under specific circumstances, suggesting gender-discriminatory attitudes with high levels of acceptance of gender-based violence. Discrimination and neglect of the girl child manifests in compromised educational opportunities (61.5% boys in comparison to 52.8% girls in the age group 15-19 are in educational institutions, NSSO, 66th Round, 2013) and harmful practices such as sex-selective abortions, early marriage and dowry.

It is in this context that the Adolescence Education Programme (AEP) is placed: it is envisaged as an educational initiative that builds on experiences of young people to enable them to respond to real-life situations effectively. The programme orients school teachers and staff to better appreciate and respond to the unique needs and concerns of adolescents. The school-based efforts extend, to some extent, into homes and communities to support an enabling environment for adolescents in the various spaces that they occupy.

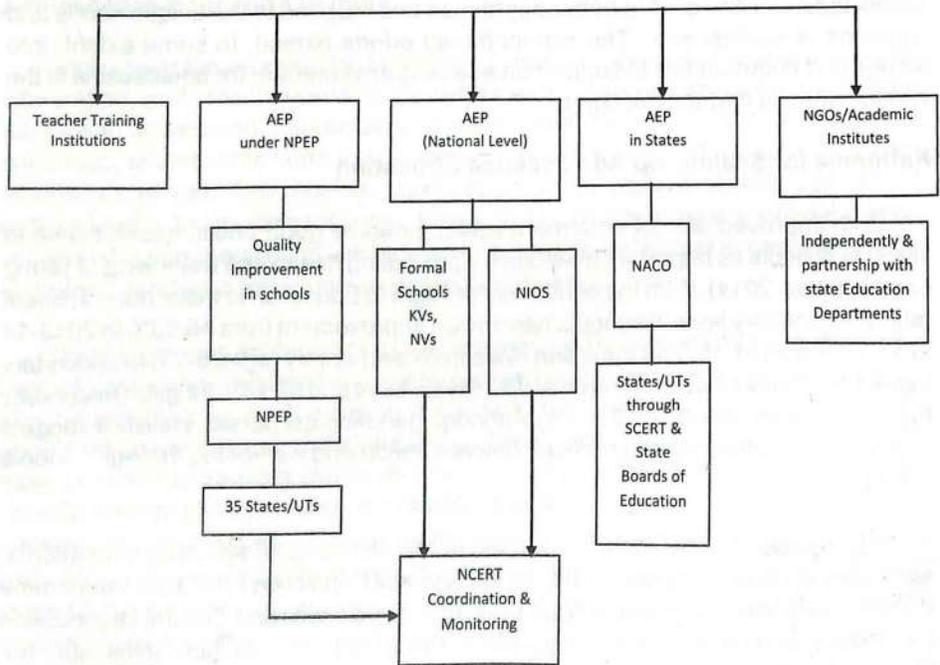
Rationale for Scaling-up Adolescence Education

With improved school enrolment rates, it makes good public health sense to invest in schools as important avenues for promoting health and well-being of young people (Fazel, 2014). With the enactment of Right to Education in India, net enrolment ratio¹ at secondary level in schools has shown improvement from 45.63% in 2013-14 to 48.46% in 2014-15. The transition rates from elementary (ages 6-13) to secondary (ages 14-18) school were reported at 93.76% for boys and 89.28% for girls (Secondary Education Flash Statistics, 2014-15). Although gender gaps persist, statistics suggest a growing opportunity to improve adolescent health and well-being through schools in India.

It is noteworthy that India introduced some elements of sexuality education in secondary schools as early as 1980, via the National Population Education Programme (NPEP), supported by United Nations Educational, Scientific and Cultural Organization (UNESCO) and United Nations Population Fund (UNFPA). In mid-1990s, after the National Seminar on Adolescence Education organised by NCERT, the framework broadened from a preoccupation with demographic issues, to include adolescent sexual and reproductive health, gender equity, substance abuse and HIV-AIDS education. A general framework of Adolescence Education was thereafter finalised through nationwide consultations. Adolescence Education was widely popularised and accepted as the core component of the NPEP. In 2002, NPEP² became a part of Quality Improvement Scheme in Schools (QIS)³. In 2005, government initiatives on Adolescence Education were harmonized by the Ministry of Human Resource Development (MHRD) under the umbrella term, 'Adolescence Education Programme' (AEP).

Across India, several entities including Government departments of Education and Health at national and state levels, and Civil Society Organizations (CSOs), are implementing different versions of the AEP with the objective of enabling school going adolescents to be better informed on issues related to their health and well-being and take responsible decisions. An important purpose of several of these programmes is to make the school system more responsive to the needs and concerns of adolescents, and co-create schools as increasingly vibrant and positive learning spaces. Majority of these initiatives reach out to students aged 14-16 and include a component of teacher training and classroom based activities.

An overview of different AEP initiatives is represented below:



This paper seeks to examine key components of select adolescence education initiatives in the country that have worked with relevant departments of national and/or state government, and recommend strategies for further institutionalization of these initiatives as well as suggest ways forward for their expansion and replication in school systems across the country. The selected initiatives include the ones implemented and/or co-ordinated by:

- National Council of Educational Research and Training (NCERT) in partnership with Ministry of Human Resource Development (MHRD) & UNFPA

- Civil Society Organisations: Kalinga Institute of Social Sciences (KISS) and Centre for Catalysing Change (C3) led programmes in Odisha, Jharkhand and Bihar.

Overview of Adolescence Education Programmes in India

AE Programmes coordinated by Government of India

The AEP co-ordinated by the NCERT under the MHRD is implemented through 3 national school systems: *Kendriya Vidyalaya Sangathan*⁴(KVS) and *Navodaya Vidyalaya Samiti*⁵ (NVS), both formal school systems, and the National Institute of Open Schooling (NIOS). The guiding principles of the programme include recognition of adolescents as a positive and valuable resource that needs to be respected rather than treated as a problem. The programme is participatory, process-oriented and non-judgmental rather than prescriptive, stigmatizing or fear inducing. There is a strong focus on enhancement and application of life skills in real life contexts. AEP aims to influence the entire school curriculum and ethos, rather than being an isolated, stand-alone component. The programme aims to contribute towards the transformational potential of education based on principles of equity and social justice rather than a coping and managing paradigm or a status-quoist orientation.

Key themes covered under the programme include:

- Understanding and being comfortable with changes during adolescence
- Establishing and maintaining positive, responsible relationships
- Understanding and challenging stereotypes and discrimination related to gender and sexuality
- Understanding and reporting abuse and violation
- Prevention of substance misuse: causes, access to safety net, consequences, de-addiction, care and support
- Prevention of HIV and AIDS, dealing with stigma, access to services, link with RTIs/STIs

The programme in the two formal school systems works on a cascade approach of training master trainers who orient teachers and peer facilitators⁶ (students of grade 9, age 14). By end-2015, approximately 700 master trainers oriented 3400 nodal teachers and 5000 peer facilitators in all the 590 *JawaharNavodayaVidyalayas* and 1120 *KendriyaVidyalayas*. The programme supports an online resource centre and a moderated electronic discussion forum for teachers (www.aeparc.org⁷)

The key activities under the AEP in the 2 formal school systems are:

- Sensitization of school principals

- Allocation of 23 hours in school time-table for learner-centric participatory activities in grades 9, 10 and 11 (ages 14-16) by 2 trained teachers
- Question box activity: students post their concerns anonymously and get responses from nodal teachers and/or experts
- Thematic school assemblies
- Organization of thematic events such as role plays, creative writing, poster making
- Peer facilitators (4 per school) where present contribute towards all the AEP activities
- Regular submission of monitoring reports⁸

The crucial activities through the National Institute of Open Schooling⁹ include integration of life skills, adolescent concerns and learner-centric participatory activities in 150 lessons across the major scholastic subjects of English, Hindi, Sciences, Social Sciences and Home Science at the secondary level. Recognizing that evaluation mechanisms should be in tandem with learning materials, subject-specific question banks are being suitably updated. Almost 100 subject experts and 50 evaluation experts have worked on updating the self-learning materials and question banks.

The AEP reaches out annually to approximately 340,000 adolescents directly through the 2 national formal schooling systems, and 221,000 young people enrolled at secondary level in the NIOS.

The AEP implemented in the formal schooling systems, was evaluated in 2010-11. Approximately 22,000 students and 1070 teachers from 189 schools (KVs, JNVs and private schools) participated in the assessment. The evaluation assessed knowledge and attitudes of adolescents towards issues related to their health and well-being. Knowledge and attitudes of teachers were assessed on similar domains. The overall results clearly indicated positive impact of AEP, although the impact was modest on most counts; indicating the need to continue the programme with focused inputs and sustained efforts in programme implementation. For instance, more students correctly distinguished between HIV and AIDS in AEP schools (66%), than in non-AEP schools (52%). More students recognized menstruation as a normal process in AEP schools (61% boys and 68% girls) than in non-AEP schools (53% boys and 61% girls). A higher percentage of students from AEP schools reported that it is important for anaemia patients to eat green leafy and other iron-rich vegetables (71% in AEP schools versus 55% in non-AEP schools). More students thought that a boy who likes to do housework is a good influence on his friends in AEP schools (45% boys and 49% girls) than in non-AEP schools (38% boys and 42% girls). Seventy five percent trained teachers from AEP schools in comparison to 55% teachers from non-AEP schools reported that a woman could get pregnant the first time she has sexual intercourse if no birth control method is used. Students found AEP sessions different from most other classes, because teachers encouraged questions; were friendly; and discussed issues students face in life rather than only

bookish knowledge. Students said they understood issues better with participatory methodologies such as role plays, poster making, essay writing, drama and question box. They liked it when '*our issues were discussed and suggestions given to take the right decisions.*' They reported enjoying '*discussion with psychologist on internal changes during adolescence*'. A student appreciated, '*All the things discussed, we had experienced them.... It was very interesting.* Another noted, '*We can share our issues as everybody goes through the same thing. It relieves stress.*'

Selected NGO-coordinated school-based AE Programmes

In the state of Odisha, Kalinga Institute of Social Sciences (KISS) in partnership with UNFPA is undertaking life-skills based Sexual and Reproductive Health (SRH) education since 2010. The sessions are held with students of grades 6 to 9 by trained teachers covering over 10,000 tribal adolescents. Peer educators have been trained to promote life skills education (LSE) as well as share accurate and age appropriate information on SRH issues among peers. These key activities are supported by counselling, health services, menstrual hygiene promotion and creative communication.

In 2012, KISS started providing technical assistance to Government departments of Schedule Tribes and Schedule Caste Development (SSD) and School & Mass Education (S&ME) to promote the programme in residential schools. By end-2014, all the 318 SSD high schools and 182 *Kasturba Gandhi Balika Vidyalyayas*¹⁰ (KGBVs) in the state were reaching out to 70,000 adolescents from disadvantaged communities with this initiative. From 2015, the programme in government residential schools is implemented directly in partnership with the SSD Department.

Another NGO, Centre for Catalyzing Change (C3) has worked with the Department of Human Resource Development (HRD), Government of Bihar (GoB), at the state and district level since 2010, with support from UNFPA. Their project, **Tarang**, empowers secondary school students with information and skills for improved health and well-being, through systematic investments in a cadre of master trainers who orient teachers to organize classroom based activities. C3 engages with state and district level officials of the Department of HRD to effectively implement, monitor and sustain the programme. The project aims to contribute towards the larger objective of healthy, empowered, self-confident, productive and responsible adolescents. The project is implemented in 809 state board secondary schools across 9 districts of Bihar. When the project was initiated in 2010, classroom based transactions were organized in grades 9 and 11. It was found that more than 80% of students moved to college after grade 10, hence from 2014, *Tarang* is being implemented in grade 9 only. The programme has reached out to over 16 lakh students in the state. In a process evaluation in 2013, 86% principals and 100% master trainers and nodal teachers opined that the programme was a relevant component of school education. Over 95% principals and teachers were in favour of making it compulsory.

C3 has also been implementing an AEP in Jharkhand, called 'Udaan', since 2006, in partnership with the Government of Jharkhand (GoJ) and Jharkhand State AIDS Control Society (JSACS). Supported by the David and Lucile Packard Foundation and Government of Jharkhand, Udaan reaches out to students in all the 1485 secondary schools of the state and 198 KGBVs. Working on a cascade training approach, the programme has created a pool of 87 master trainers, who have trained nodal teachers (2 per school). A state-specific curriculum has been designed for Class 9 (20 hours) and Class 11 (18 hours) which is transacted over one full academic year. The major themes include goal setting, growing up healthy, friendship, peer pressure, understanding and challenging gender-based discrimination and sexual harassment, marriage and parenthood, early marriage and its consequences, contraception, prevention of RTIs/STIs, HIV-AIDS, substance abuse and communal harmony. With increasing ownership of Government of Jharkhand, Udaan has been mainstreamed in the secondary school system in the state and since 2014, has also been introduced to students of classes 6, 7 and 8 in selected 300 schools in the state. The programme has reached out to over 17 lakh students. An assessment at the beginning and end of the academic year 2010-11 suggested a positive impact of the programme on several themes related to adolescent health and well-being. The students' SRH knowledge score (including knowledge of menstruation, masturbation, safe period and who determines sex of child) increased from 50% to 68%. The proportion of students reporting that any form of gender-based violence is unacceptable increased from 32% to 40%. The students' HIV-AIDS knowledge score (including knowledge of HIV and AIDS, transmission and prevention of HIV, HIV testing facilities and use of condom as a method for prevention of HIV and unwanted pregnancy) increased from 32% to 40%. The State Government's ownership of the

Ban on Adolescence Education and Recovery

In 2006-07, the AEP faced a country-wide backlash. Several state governments withdrew the programme on the grounds that the curriculum, particularly some illustrations, was culturally inappropriate (Gentleman, 2007, Anandhi, 2007). Although the initial reaction was fear that gains consolidated over two decades would be lost, the ban also created an opportunity for several stakeholders from civil society, development agencies, academia and government departments to collaborate, strategize and reconfigure the programme. AE was increasingly positioned in the context of an educational approach aimed at enhancing life skills to enable young people to achieve their potential; this proved to be a useful strategy to reduce anxieties around the initiative and protect it from negative politicization. This approach was helpful in getting buy-in from senior policy makers in MHRD and leadership from NCERT at the national level and SCERT/ State Boards for state-specific projects. With continuous engagement of schooling systems (adolescents, teachers and principals) and other stakeholders, the conceptual framework (2009) and guiding principles (2010) were updated, and the curriculum and resource materials (2012) better aligned to international technical guidelines, while retaining a strong focus on needs and concerns of adolescents in India. Cultural relevance remains an important criterion for shaping the curriculum and resource materials.

programme has created opportunities for integrating majority of the themes covered in the programme in the text books. The programme has also been successfully implemented in a premier B.Ed. college in the state for three successive academic years and has trained 378 teachers on life skills and adolescence education content. This is a readily available resource to facilitate and sustain the programme in the state.

Considerations for Scaling-up

The selected adolescence education initiatives described above are at different stages of maturation. However, given the growing evidence of positive contribution of these programmes to comprehensive development of students and creation of an enabling environment in schools, this is an opportune time to strategize ways to further institutionalize and scale up these initiatives. The fact that each initiative described above is anchored within national or state-specific education boards provides confidence that such programmes are relevant to different boards of school education across the country.

In the section below, certain internationally recommended criteria for school-based CSE programmes (UNFPA, 2015, UNFPA, 2014) have been applied to synthesize key learning from these initiatives, and develop context specific recommendations for further institutionalizing and scaling up AEP initiatives in school education.

System Partnership and Responsiveness

Adolescence Education has stood the test of time and evolved over the last three decades, and its relevance to the needs and concerns of young people is now widely accepted. It was recognized as an important area in school education in the Education Policy, 1986, its revised version, 1992, and the National Curriculum Framework, 2005. Discussions around the New Education Policy (2015-16) include life skills and child health as important considerations: both these are key components of the AEP. Given that 21% (253 million, *Census 2011*) of India's population is in the age group 10-19, adolescents are recognized as an important national resource and their health and well-being is the focus of several Government policies and programmes. The guiding principles of AEP are in tandem with the contemporary discourse on educational reforms that recommend learner-centric pedagogies and connect classroom learning with real life situations.

Majority of adolescence education initiatives are implemented in partnership with Government school systems. Based on their experience, various school systems appreciate the relevance of the programme and several of them have enhanced human resource capacities in programme delivery and management through sustained engagement with externally supported initiatives. An important step towards

institutionalization is inclusion of AEP in school time-table. In Bihar based *Tarang*, teacher training costs were always borne by the State Department of HRD and the District Education Officer reviewed *Tarang*-related progress in monthly meetings with principals. Selected master trainers have the additional responsibility of mentoring and monitoring programme quality in 4-6 schools: this enhances master trainers' skills, strengthens capacities within the system and contributes towards maintaining quality standards in the programme. In the AEP implemented in the national school systems of KVS and NVS, principals are sensitized to the programme through system's resources in their regular orientation programmes. KVS is willing to allocate time and resources for induction and in-service training of teachers and NVS (which charges no fees from students and is 100% funded by the central Government) is considering the idea subject to availability of funds. The mentorship programme modeled around Bihar's *Tarang* has also found favor with both the national school systems.

In Odisha, the Life Skills Education (LSE) programme was piloted in 2010 in partnership with KISS. An important breakthrough towards its institutionalization came with the announcement of the state government's "Odisha State Policy for Girls and Women, 2014," which clearly recognized the importance of life skills education in schools. This paved the way for scaling up the programme in direct partnership with the government. From 2015, the government has taken ownership of its implementation through the Scheduled Castes and Scheduled Tribes Research and Training Institute, with an additional financial commitment towards the programme. This resulted in decline of UNFPA's financial support between the years 2013 and 2016.

Integration of life skills and adolescent concerns in the self-learning materials of NIOS is another huge step forward towards institutionalization of the programme.

It is important to underscore the importance of steady, sustainable and incremental progress in partnership with the system rather than expecting quick-fix solutions. This lesson was well illustrated through the materials development process post the ban on AEP. The current AEP resource materials are more progressive than the earlier "abstinence only" curricula, and better aligned to international technical guidelines which are anchored in a human rights perspective with an integrated focus on gender. The current resource materials include discussion on genital hygiene and nocturnal emission, sensitive handling of the concept of sexuality with emphasis on the fact that there is nothing dirty or shameful about it and a comprehensive introduction to recognizing and challenging gender stereotypes and gender-based violence through context specific issues such as gender-biased sex selection and child marriage. However, certain important components are still missing in sufficient depth. These include discussion on masturbation, comprehensive discussion on sexual diversity, relevant information on unintended pregnancy and contraceptives. Given widespread sensitivities around these topics, and valuing the ongoing partnership

with the Department of Education, these compromises were agreed to during the process of curriculum revision (2010-12). While it is difficult to judge whether or not this was a wise decision, it did contribute to enhancing ownership and acceptability of the programme in the national school systems and state education boards.

Through the Council of Boards of School Education (COBSE), the AEP at the national level invested in advocacy with State Boards of Education to integrate elements of adolescence education in their syllabi, textbooks and evaluation items and recommended concrete mechanisms to achieve this goal. COBSE finalized tools for assessing the quality of integration of adolescence education at the secondary and higher secondary stages in selected State Boards of Education. In mid-2013, the programme's partnership with COBSE concluded, but it was decided to invest in focused advocacy efforts with those State Boards of Education that agreed to implement the programme.

Aligning Content and Pedagogy with International Guidelines and Local Concerns

Content and pedagogy are crucial inputs into any well designed CSE. AEP has consistently invested in keeping the content up-to-date, with inclusive and comprehensive processes of content development. The ban on adolescence education was used as an opportunity to update the programme. The revised programme framework and resource materials were arrived at through a robust and inclusive consultative process that engaged with adolescents, teachers, officials in the Department of Education, subject experts from civil society, academic institutions and Government at all stages of drafting, pre-testing and finalizing the resource materials. The draft materials were pre-tested by 150 master trainers and 504 nodal teachers as well as posted on NCERT website for wider feedback. These efforts took time but played a crucial role in enhancing the relevance and ownership of the overall framework and programme content. Similar processes were adopted in Jharkhand, Odisha and Bihar for developing and/or adapting resource materials in state-specific programmes that enhanced their acceptability.

Even as early as the 1990s, learner-centric, participatory activities were recommended to transact the content; this focus has further increased with time with a growing recognition that meaningful learning can happen only when the teaching-learning processes value and engage with the experiences and realities of learners.

Adolescent concerns, life skills and learner-centric participatory activities were integrated in the self-learning materials of select scholastic subjects at the secondary level in the NIOS: a huge undertaking (2009-12) tailored to the needs of open school learners. This process of curriculum development and lesson writing was led by NIOS and NCERT, supported by UNFPA through a diverse group of stakeholders

including approximately 100 subject experts and practitioners. There were concerns around dilution of subject-specific content and whether learners would take longer to understand a concept if taken through a participatory learning route. These concerns were addressed systematically by exposing content experts to the preferences of learners and emphasizing that learning is likely to be better if the learning materials engage with the experiences of learners. The lessons can be accessed at <http://www.nios.ac.in/online-course-material/secondary-courses/>. The revised self-learning materials were supported by relevant learning aids, for example a series of training videos *Learning Together, Learning Better* was developed to demonstrate classroom transaction materials using participatory methodologies. The programme invested in capacity enhancement of tutors who work with the open school system to enable them to effectively transact the updated materials.

UNFPA invested in developing handbooks on core papers in the B.Ed curriculum for Rajasthan University in close partnership with the Central Institute of Education, Delhi University and University of Rajasthan (2011-13). These materials have yet to be utilized for orienting teacher educators and, thereafter, trainee teachers.

Teacher Preparation

Experience within India and elsewhere suggests that a **critical mass of trained teachers** is important for meaningful implementation of CSE programmes in schools. Most AE programmes have established a norm of 2 trained (nodal) teachers per school, and invest in 4-6 days orientation training organized on a residential basis. The limitation of this approach is that 2 nodal teachers have the entire responsibility of transacting classroom based sessions which, depending on school size, may translate into a fair amount of additional work for them. Further, the teachers who work on this sensitive subject may feel isolated. It may be better to have a specified number of trained teachers for a specific student population in each school. The AEP in JNVs and KVs therefore set a goal of one trained teacher for every 150 secondary school students, and geographically scaled down to fewer states in 2010 in order to achieve this goal. Approximately 3-5 teachers per school were trained in these school systems in the selected states of Bihar, Odisha, Madhya Pradesh, Maharashtra and Rajasthan. However, it may not always be possible to enhance the number of trained teachers per school and programmes may need to invest in e-learning or hybrid learning approaches.

UNFPA initially used to contract expert NGOs to directly train nodal teachers of the KVs and JNVs. Although it was easier to standardize quality with external trainers, there were serious constraints — limited ownership within the system and more importantly, inadequate institutional capacity building. Starting 2010, the programme invested in a cadre of master trainers from within the school systems. Selection criteria were specified for identification of both master trainers and nodal teachers in an effort to improve the quality of the entire training.

While orientation training is critical, it is equally important for nodal teachers to have opportunities for refresher trainings as well as sharing experiences and learning. The electronic discussion forum in the AEP co-ordinated by NCERT provides the opportunity to raise concerns related to different aspects of AEP and seek solutions. More efforts need to be made to popularize the forum so that a larger number of teachers and officials in the department of education access it. The mentorship programmes should also facilitate opportunities for learning and exchange. Similar exchange programmes have been found useful in very diverse settings including Nigeria and Lagos.

Although it is recognized that preparing teachers to respond to adolescent concerns during pre-service training is one of the most cost effective and sustainable ways of scaling up, this aspect has not yet received adequate attention in various AE programmes in the country. Certain universities and departments of Education have taken the initiative in this direction, for example, Central Institute of Education, Delhi University, but far more needs to be done.

Implementation Modalities

Adolescence Education is implemented as a stand-alone initiative in all the above mentioned programmes except in NIOS where it is integrated in the scholastic subjects. There are pros and cons to both approaches. There is ongoing discussion on whether elements of AEP should be integrated throughout school curriculum or whether it should remain a stand-alone subject. If adolescent concerns are mainstreamed in the larger context throughout school education, no additional subject or programme will be needed. Hence, no additional programme specific resources will be needed for implementation or monitoring. However, there are also disadvantages. The school system throughout the country is not ready to absorb all the components of the currently conceptualized adolescent concerns in their true spirit. Specific pedagogical methods to actualize life skills development among learners are yet to find a rightful place in school curriculum. Furthermore, insufficient human resources, in terms of trained teachers, sensitized officials in the Department of Education, and overall shortage of teachers are likely to interfere with the core programme components, and youth concerns may not get addressed at all. Experience from Finland suggests that sexuality education as a separate subject during teacher training enhanced the overall quality of the programme (Apter, 2011). The learning from Thailand also suggests that when sexuality education was integrated in several subjects, there were cost issues as well as problems with scaling-up.

Supervision, mentoring, monitoring and evaluation systems are crucial especially when scaling up, as certain adaptations may be made and it is important to assess their impact on the quality of programme implementation. Monitoring data helps identify gaps in programme implementation, and take timely corrective measures as well as identify good practices that should be recognized. This information

also provides evidence based inputs for both the content and approach of the programme to enhance its impact and take well informed decisions at policy and implementation levels. Different programmes have set up diverse monitoring mechanisms. For the academic year 2015-16, the programme implemented in the KVs and JNVs has introduced an online reporting mechanism with a quarterly reporting requirement. It is expected that online reporting will enhance engagement and ownership of educational administrators in supporting the programme, and provide timely feedback as well as support to further improve school performance. In Bihar's *Tarang* programme, monthly reporting is the norm and the data are submitted by school principals in the DEO's office during monthly review meetings. An Integrated Voice Response System (IVRS) has been set up to receive monthly data in a pre-determined format from the school principals. In addition, the mentors (Government school teachers trained as master trainers) and C3 staff visit every school twice a year to monitor the programme and provide mentoring support. During these visits, they collect basic quantitative data as well as information on quality aspects, such as students' rating of the AEP sessions, and also provide support to nodal teachers to ensure effective transaction of sessions, maintain session records, and report via IVRS and reporting formats. The DEOs also monitor implementation of *Tarang* during their school monitoring visits. In Jharkhand one officer from the DEO's office has been designated *Udaan Mitra* and is responsible for monitoring of *Udaan* implementation in the district. School monitoring visits to a sample of schools are made by *Udaan Mitras* and C3 staff. Key indicators from the monitoring formats have also been incorporated in the Educational Management Information System (EMIS). In Odisha, under the LSE Programme, every month principals of the tribal residential high schools submit monthly reports in a pre-designed format to the respective District Welfare Officers (DWOs). The reports are compiled and sent to the state Programme Management Unit (PMU), situated in the SC and ST Research and Training Institute. The PMU regularly analyses and provides feedback to the districts and undertakes random monitoring visits to schools. In 9 districts with high concentration of tribal residential schools, a district consultant is placed by UNFPA who undertakes supportive supervision visits to assess transaction of LSE sessions by nodal teachers.

In NIOS, public examinations conducted twice a year and On Demand Examinations conducted 5 days a week include life skills integrated questions. Review of AE within the regular review mechanisms is an important step towards institutionalization.

Inherent Flexibility and Responsiveness

An important reason for AEP staying relevant over decades has been its inherent flexibility and dynamic nature that made it responsive to the evolving needs of participating school systems and adolescents. For example, responding to mental health concerns of school going adolescents was not a core component of the AEP being implemented in KVS and NVS. However, recognizing that it was important to

address this issue to achieve the goal of health and well-being of adolescents, the programme made systematic investments in this direction. In 2011-12, UNFPA commissioned a review of counseling services provided by KVS and NVS teachers who had completed career guidance and counseling course offered by NCERT. The findings suggested that the trained teachers did not have the necessary administrative support to be able to provide first level of counseling services effectively. In partnership with the mental health organization *Sangath*, a pilot was initiated in 200 JNVs (residential schools) to orient staff nurses to provide first level of counseling services (2010-13). Process evaluation of this pilot in 2013-14 suggested that although the initiative was extremely relevant, it needed a team approach with orientation of approximately 10% school staff including teachers and staff nurses. The programme was re-envisioned with emphasis on team approach, group counseling on common adolescent concerns and a renewed focus on creating an enabling environment for the students. This modified version of the programme is known as AEP Plus and is being implemented in 70 JNVs of Hyderabad region in partnership with St John's Research Institute.

Given that there is a secular trend towards puberty at earlier age and that adolescents today have easier and better access to several sources, which inform as well as misinform; a clear need was articulated in favor of initiating the AEP from age 11 (grade 6 onwards) rather than from the currently prevalent age of 14 years (grade 9 onwards). In the process evaluation of Bihar-based program in 2013, approximately 60% principals and teachers mentioned that the programme should be initiated in classes 7 or 8. NCERT is leading the process nationally. Several organizations such as C3 and CorStone have developed curricula and materials for upper primary classes (grades 6-8). Through extensive consultative and collaborative processes, NCERT will work with the available resource materials rather than starting on a clean slate. It is expected that these materials would be available end-2016.

Utilizing Technology

There are several good reasons to make optimal use of appropriate technology. Guided by this realization, AEP launched the virtual Adolescence Resource Center in June 2014 (www.aearc.org). Online reporting has further encouraged use of the resource center and by June 2016, the website had 7350 registered users and 114,798 hits. The website received over 200 questions between June 2014 and December 2015 on different topics related to adolescent health and well-being; a confidential and anonymous response to individual questions was emailed back, and relevant questions (around 138) were added to the FAQs section of the website. NIOS invested in hybrid learning models in which technical sessions were conducted online and hands-on sessions were conducted on-site by master trainers to simultaneously orient over 500 tutors across India.

It is expected that with relevant advocacy and more focused discussion topics being floated on the electronic discussion forum, the virtual resource center will be better used by the participating school systems. Given the huge training load of orienting school staff and the need for refresher trainings, the programme is investing in developing e-learning materials to enhance the access and reach of programme specific training.

Active Engagement of Young People in Programme Design and Implementation

Different AEP initiatives are invested in actively engaging young people at all stages of programme design and implementation. Their inputs have been sought during development of materials, in orienting them as peer facilitators and through planned opportunities of shared learning through school-specific, regional and national events organized around the themes of adolescent health and well-being. These events generate a lot of enthusiasm and reinforce learning on thematic issues among students as well as teachers as events are organized in all the participating schools. Learner engagement activities have been immensely popular with NIOS where learners have fewer opportunities to demonstrate their talent. While 1600 learners participated in year 2014, the numbers swelled to 3930 in year 2015: this may be the largest ever congregation of open school learners and tutors in the world.

Way Forward

As discussed above, different adolescence education initiatives have made varying inroads to render school education more responsive to the needs and concerns of adolescents. For any educational initiative to stay relevant, it has to be dynamic and responsive to the needs and realities of its key target audience.

Training and resource materials specific to AE should be updated regularly. The queries received in the question boxes in participating schools are taken as a good guiding post to decide on the breadth and extent of revisions. If majority of the questions asked by students are around issues or themes not covered in existing materials, then the missing themes or information needs to be included. **Curriculum and text book revisions** should incorporate adolescent concerns in different subjects so that the core themes of AE get mainstreamed into school education.

Teacher preparedness is crucial to deal with the issues covered in the AE initiatives effectively as being sensitive and responsive to needs and concerns of students should be a universal principle that should not be restricted to AEP classes but should be applicable to all transactions in school settings. While different programmes have focused on **in-service training**, there have to be systematic plans for **refresher trainings and enhancing formal and non-formal opportunities for sharing of learning and experiences**. In this regard, improved use of technology through e-

learning, electronic discussion forums, putting up AE related achievements on the virtual platforms, as well as more physical opportunities for exchange and learning should be encouraged. The mentorship programme where one resource person provides guidance and support to 5-6 schools in the neighbourhood can also facilitate such learning. **Pre-service teacher training** needs systemic attention so that all teachers have a basic orientation to adolescent concerns and are prepared to respond to them. Several stakeholders articulated that teachers are not always comfortable in dealing with themes related to changes during adolescence, gender stereotypes, sexuality and sexual harassment and abuse. Given that these are some of the core components of AE initiatives and some of these inhibitions are part of the social discourse, the education and training programmes for teachers must pay specific attention to address them.

Scholastic performance is high on the priority list of educationists, school teachers, students and parents. Hence, initiatives such as the AE must clearly emphasize the importance of **holistic and integral education** where research has clearly established that learning improves when multiple dimensions are addressed and that the mental dimension of learning is likely to be better when the physical and emotional needs of learners are taken care of. Understanding that initiatives such as AE can contribute towards improving scholastic performance of students will go a long way in providing the initiative its legitimate space in school education. It is true that the school system is burdened with competing priorities. Furthermore, large class sizes could be a deterrent to effective use of participatory methods. However, all school-based initiatives have to work with the realities of the school system. Better use can be made of existing institutional spaces and mechanisms like the school assembly and Parent Teacher Association (PTA) meetings. Learner-centric, participatory pedagogies can be adapted for large group sizes. Continuous and Comprehensive Evaluation (CCE) also provides opportunities for mainstreaming life skills such as critical thinking, effective communication and decision making into teaching-learning processes.

Every AE initiative has a **monitoring mechanism**. It is important that adequate attention is given to enhancing system's capacities to monitor the programme. Monitoring should include a component of mentoring with more focus on qualitative aspects, attitudes and reinforcement of guiding principles of the programme. An important missing component in these programmes is a formal recognition and reward system that could motivate schools and teachers to do better. Although different programmes are adapted to diverse realities, it is important to standardize core objectives, achievements and measures of quality across initiatives. Furthermore, as an important component of institutionalization, review of AE should be integrated in the regular review mechanisms of each school system.

It is important to engage with the wider community and specifically parents on the relevance of AE so that they remain invested in the initiative and are able to argue

in its support. Once parents are convinced that AE components contribute towards holistic development of their wards, they will prove to be the biggest allies of the programme. Themes related to gender and sexuality address some of the more sensitive human experiences and are often imbued with moral values and judgements. Hence, initiatives like the AEP are likely to provoke strong reactions and opinions both in its favour as well as against it. Therefore, an important responsibility of programme planners is to consistently invest in expanding its support base, and systematically address the opposition. It is important to articulate that the programme is making sincere efforts to respond to the needs and concerns of school going adolescents. Furthermore, political will and commitment are important for ensuring that necessary resources are allocated to the programme. As political regimes change over time, there are no assurances of consistent support. Hence, when the political administration is supportive, it is important to formalize key agreements in favour of the programme, for example, mandating it in the school time table or including AE themes in in-service teacher training. This would give positive mileage to the programme even when political support may be inadequate as it may be difficult to revoke formal agreements especially since young people are increasingly recognized as an important constituency for all political parties.

Although School Health Scheme applies to most Government schools, strong organic linkages need to be established between the departments of education and health so that more benefits can accrue to the learners. For example, referrals for health concerns including mental health concerns should be streamlined. Similarly, the *Rashtriya Kishore Swaasthya Karyakram* (National Adolescent Health Programme) should be able to utilize the trained teachers and peer facilitators in schools to reach out-of-school children with relevant information.

It is important that the AEP invests in context specific research and documentation so that all aspects of programme design, implementation and monitoring are guided by evidence. Given that an educational initiative of this nature is process driven, the documentation and research should provide information on the qualitative aspects of the programme, as well as quantitative achievements.

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(Endnotes)

¹Net enrolment ratio is defined as enrolment in primary education (grades 1-5) of the official primary school age group (6-10 years) expressed as a percentage of corresponding population.

²NCERT implements the National Population Education Project (NPEP) in 33 States and UTs. This initiative works through theme-based activities such as the role plays, folk dances, poster making, quizzes and other participatory events such as observation of certain days such as the World AIDS Day, International Women's Day etc. AEP themes are a major focus of NPEP activities besides other relevant themes such as care and respect of elderly or clean India campaign. In 2015, these events were organized in state board schools across approximately 480 districts.

³During the Tenth Five Year Plan Government of India decided to introduce a composite centrally sponsored scheme of 'Quality Improvement in Schools' by merging the following five existing schemes (i) Improvement of Science Education in Schools (ii) Promotion of Yoga in Schools (iii) Environmental Orientation to School Education (iv) National Population Education Project (v) International Science Olympiads. Improvement of science education in schools has since been transferred to the state governments as state sector scheme and remaining four components are being implemented by the NCERT. (Report of the Steering Committee Secondary, Higher & Technical Education for the Eleventh Five Year Plan (2007-2012) Retrieved from http://planningcommission.nic.in/aboutus/committee/strgrp11/str_hsedu.pdf

⁴**Kendriya Vidyalaya (KVs)** is a system of central government schools in India that have been instituted under the aegis of the Ministry of Human Resource Development

⁵**Jawahar Navodaya Vidyalayas (JNVs)** are a system of alternate schools for rural economically disadvantaged but scholastically gifted children. They are run by Navodaya Vidyalaya Samiti (NVS), an autonomous organization under the Ministry of Human Resource Development, Department of Education, Government of India. JNVs are fully residential and co-educational schools

⁶ It was proposed to have 4 peer facilitators in each school but this component of the programme is not universally implemented in all the JNVs and KVs.

⁷Adolescence Resource Centre (ARC) is an online interactive portal for text and audio-visual on different aspects of adolescent health and well-being. ARC also supports a moderated electronic discussion forum that provides school teachers a space to articulate their issues on different aspects of Adolescence Education

Program and share their experiences and learning. Value added features include an online question box where any individual can raise queries in an anonymous manner and get confidential responses. Explore different features of ARC by logging on the website.

⁸An AEP documentary film that highlights the key activities in the program can be accessed from <http://www.aeparc.org/video-gallery>

⁹NIOS provides a second chance at education to thousands of young people who drop out of formal schools often because they cannot afford formal school education

¹⁰The **Kasturba Gandhi BalikaVidyalaya** scheme was introduced by the Government of India in August 2004, then integrated in the SarvaShikshaAbhiyan program, to provide educational facilities for girls belonging to Scheduled Castes, Scheduled Tribes, Other Backward Classes, minority communities and families below the poverty line in Educationally Backward Blocks.

Environmental Literacy Programme - An Innovative Approach in Tribal Education

Manoj Sebastian

Tribe is a social division in a traditional society consisting of families or communities linked by social, economic, religious, or blood ties, with a common culture and dialect, typically having a recognized leader. A tribe is viewed, developmentally or historically, as a social group existing before the development of, or outside, states. A tribe is a group of distinct people, dependent on their land for their livelihood, who are largely self-sufficient, and not integrated into the national society. It is perhaps the term most readily understood and used by the general public. Stephen Corry, Director of Survival International, the world's only organization dedicated to the indigenous rights, defines tribal people as those who "...have followed ways of life for many generations that are largely self-sufficient, and are clearly differed from the mainstream and dominant society." This definition, however, would not apply in countries in the Middle East such as Iraq, where the entire population is a member of one tribe or another, and tribalism itself is dominant and mainstreamed. India is the home land of many groups of Indigenous people, who are still untouched by the lifestyle of the modern world. As per 2011 Census the total tribal population was 104.55 million and hence, India has the largest tribal people in the world. The tribal people are also known as "Adivasis", many of whom are the poorest and still depend on hunting, agriculture and fishing. Some of the major tribal groups in India are - Abors, Apatanis (Arunachal Pradesh), Badagas, Kotas, Todas (Nilgiri in Tamil Nadu), Baiga, Kol (Madhya Pradesh), Bhiils (Madhya Pradesh and Rajasthan, some in Gujarat and Maharashtra), Bhot, Gaddis, Gujjars (Himachal Pradesh), Bhotias Garhwal and Kumaon regions of Uttarakhand), Chakma (Tripura), Chenchus (Andhra Pradesh, Odisha), Garos (Meghalaya), Gonds (Madhya Pradesh, Bihar, Odisha, Andhra Pradesh), Jarawas (Little Andamans), Khas (Jaunsar-Babar area in Uttar Pradesh), Khasis (Assam, Meghalaya), Kuki (Manipur), Lepchas (Sikkim), Lushais (Mizoram), Murias (Bastar in Madhya Pradesh), Mikirs (Assam), Mundas (Bihar, Odisha, West Bengal), Nagas [Angami, Sema, Ao, Tangkul, Lahora] (Nagaland, some in Assam and NEFA region), Oarons [also called Kurukh] (Bihar, Odisha and West Bengal), Onges (Andaman and Nicobar islands), Santals (Birbhum region in Bengal, Hazaribagh, Purnea in Bihar, Odisha), Sentinelese (Sentinel Island, Andaman and Nicobar), Shompens (Andaman and Nicobar), Uralis (Kerala) and Warlis (Maharashtra). All these tribal people have their own culture, tradition, language and lifestyles.

Along with increase in the population of India, tribal population also increases which can be seen in the Census figures. Following is the table which shows the number of people in 2001 and 2011 Census:

Table- 1
Total Population and Tribal population – Census 2001 and 2011

Census year	Total population – India (in millions)			Tribal population – India (in millions)		
	Total	Male	Female	Total	Male	Female
2001	1028.74	532.22	496.52	84.33	42.64	41.69
2011	1210.85	623.27	587.58	104.55	52.55	52.00

Total population of Scheduled Tribes was 8.2% of the total population of the country in 2001 Census. Scheduled tribe population lived in rural areas was 10.4% while in urban areas it was only 2.4%. This trend continued in 2011 Census also. Total population of Scheduled Tribes was 8.6% of the total population of the country with 11.3% in rural areas and 2.8% in urban areas.

As per 2011 Census Madhya Pradesh, Maharashtra, Odisha, Gujarat, Rajasthan, Jharkhand, Chhattisgarh, Andhra Pradesh, West Bengal, and Karnataka are the states having larger number of Scheduled Tribes. These states account for 83.2% of the total Scheduled Tribe population of the country. Assam, Meghalaya, Nagaland, Jammu & Kashmir, Tripura, Mizoram, Bihar, Manipur, Arunachal Pradesh and Tamil Nadu account for another 15.3% of the total Scheduled Tribe population. The share of the remaining states/UTs is negligible. Lakshdweep, Mizoram, Nagaland, Meghalaya, Arunachal Pradesh, Dadra & Nagar Haveli, are predominantly tribal States /Union territories where Scheduled Tribe population constitutes more than 60% of their total population. No Scheduled Tribes are notified in Punjab, Chandigarh, Haryana, Delhi, and Puducherry.

The tribal population is well nit and always lived in a secluded and self-contained atmosphere has slowly started moving into the mainstream of population in view of the need for development and opportunities provided by the governmental agencies. Educational opportunities have almost reached their doorsteps which give enlightenment. However, still a long way to go to educate all the tribal population even though their number is less. Specialists working for tribal development are split into two sets of views – one, tribes should be allowed to live in their own traditional way without changing their lifestyles as they have got security and stability till date. Another view is that if the country aims at inclusive growth, no group or groups can be left out and hence, slowly tribes should be brought into the mainstream but at the same time maintaining their own identity without disturbing their social structure. Anyway, no one denies that education should not be given to tribes and hence, special schools are opened in tribal areas and the children are encouraged to pursue formal education. But many times the tribal children are lagging behind in education

and school dropouts are common among them. Many studies reveal that one of the major reasons for the educational backwardness of the tribal students is the illiteracy of parents. The main constraints for the literacy and education of tribal people are the indigenous language which does not have any scripts except a few like Santhals.

Tribals of Kerala

Tribals, famously called Adivasis in Kerala are the indigenous population. There are 36 tribes in Kerala and they are – Adiyan, Alar, Arandan (Ernanadan), Cholanaikkan, Eravallan, Malappulayan, Irulan, Kadar, Kammara, Kanikkar, Kattunayakan, Kochu Velan, Kondakapus, Kondareddis, Koraga (Koragar), Kota, Kudiya (Melakudi), Kurichchan, Kurumans, Kurumbas (Kurambar), Maha Malasar, Malai Arayan, Malai Pandaram, Malai Vedan, Malakkuravan, Malasar, Malayan, Mannan, Marati, Muthan, Mudugar, Muduvan (Muthuvan), Paliyan (Palleyan, Palliyar, Paanan), Paniyan (Parayan), Ulladan and Uruly. Most of the tribal people of Kerala live in the forests and mountains of Western Ghats bordering Karnataka and Tamil Nadu.

According to 2011 Census the tribal population of Kerala was 4.85 lakh while it was 3.64 lakh in 2001 Census. Wayanad has the highest number of tribals followed by Idukki and Palakkad districts. The Paniya (Paniyar) are the largest among the major 36 tribes.

Tribal people groups who are food-gatherers (without any habit of agricultural practice), with diminishing population and very low or little literacy rates can be called as Primitive Tribes. Cholanaikkans, Kurumbas, Kattunaikkans, Kadars and Koragas are the five primitive tribal groups in Kerala. They constitute nearly 5% of the total tribal population in the state. Cholanaikkans can be said as the most primitive of them and found only in the Malappuram District.

Only a handful of families are living in the Mancheri hills of Nilambur forest division. Kattunaikkans, another lower-hill community related to Cholanaikkans are mainly seen in Wayanad district and some in Malappuram and Kozhikode districts. Kadar population is found in Thrissur and Palakkad districts. Kurumbas are living in the Attappady Block of Palakkad district. The Koraga habitat is in the plain areas of Kasaragod district.

Literacy scenario of Kerala

Kerala is one of the most literate states of India. As per 2011 Census the literacy rate of Kerala was 94% with male literacy at 96.11% while female literacy was at 92.07%. There are 14 districts in the state, the literacy rate of which both in 2001 and 2011 Census is given below:

Table – 2
District-wise Literacy rate – Census 2001 and 2011

Districts	Census 2001			Census 2011		
	Total	Male	Female	Total	Male	Female
Kasargod	84.57	90.36	79.12	90.09	94.05	86.49
Kannur	92.59	96.13	89.40	95.10	97.19	93.29
Wayanad	85.25	89.77	80.72	89.03	92.51	85.70
Kozhikode	92.24	96.11	88.62	95.08	97.42	92.99
Malappuram	89.61	93.25	86.26	93.57	95.76	91.62
Palakkad	84.35	89.52	79.56	89.31	93.10	85.79
Thrissur	92.27	95.11	89.71	95.08	96.78	93.56
Emakulam	93.20	95.81	90.66	95.89	97.36	94.46
Idukki	88.69	92.33	85.02	91.99	94.56	89.45
Kottayam	95.82	97.34	94.35	97.21	97.97	96.48
Alappuzha	93.43	96.27	90.82	95.72	97.36	94.24
Pathanamthitta	94.84	96.41	93.43	96.55	97.36	95.83
Kollam	91.18	94.43	88.18	94.09	96.09	92.31
Thiruvananthapuram	89.28	92.64	86.14	93.02	95.06	91.17

The literacy rate of India as per 2001 Census was 64.83% and as per 2011 Census it was 73%. Comparatively all the districts in Kerala were far ahead of the national average in both the Census. In between the districts Palakkad was the one lagging behind all other districts in 2001 Census. However, it took one notch above Wayanad district in 2011 Census, though the difference was only 0.28 points.

Tribal literacy scenario of Kerala

The tribal literacy of Kerala as per 2011 Census was 72.77% and having the literacy gap of 21.14% with the overall literacy rate of the state which was 94%. Following table gives the decadal difference of literacy among general population and tribes:

Table-3

Decadal difference of Literacy among General population and Tribes

Particulars	2001		2011		Decadal growth
	Literacy rate	Literacy Gap	Literacy rate	Literacy Gap	
Literacy rate of India	64.8	-	73.00	-	8.2
Tribal Literacy of India	47.1	17.7	58.95	14.05	11.85
Literacy rate of Kerala state	90.9	-	93.91	-	3.0
Tribal Literacy- Kerala	64.4	26.51	72.77	21.14	8.37
Literacy rate of Palakkad District	84.35	-	89.31	-	5.96
Tribal Literacy of Palakkad District	40.2	44.15	57.63	31.68	17.43
Literacy rate of Attappady Block	49.55	-	66.89	-	17.34
Tribal Literacy rate of Attappady Block	38.62	10.93	62.11	6.06	23.49

Source: Census Reports 2001 and 2011

Attappady in Palakkad District

Attappady is an extensive mountain valley at the headwaters of the Bhavani River nestled below the Nilgiri Hills of the Western Ghats. It is bordered to the east by Coimbatore district in Tamil Nadu, on the north by the Nilgiris, south by the Palghat taluk and on the west by Karimba-I and II, Pottassery-I and II, and Mannarghat revenue villages of Mannarghat taluk of the Palghat District and Ernad taluk of the Malappuram district. The 249 km Attappady Reserve Forest is an informal buffer zone bordering the Silent Valley National Park to the West. Around 81 km of this forest was separated to become most of the new 94 km Bhavani Forest Range which is part of the 147.22 km Silent Valley Buffer Zone formally approved by the Kerala Government. The zone is aimed at checking the illicit cultivation of ganja, poaching and illicit brewing in areas adjacent to Silent Valley and help long-term sustainability of the protected area. There is a Government Goat Farm at Attapadi village which has the "Attapadi Black" breed available. The elevation of Attappady valley ranges from 750 meters (2,460 ft) to the Malleswaram peak at. The Bhavani River flows from the Northwest around the mountain in a tight bend past Attappady village and continues to the Southeast.

The literacy rate of the tribal population in Palakkad district as per 2001 Census was 40.2% which increased to 57.63% in 2011 Census. At the same time the literacy rate of tribal population in Attappady was 38.62% in Census 2001 which increased to 62.11% in Census 2011 (2011 Census figure almost corroborates the tribal survey conducted in the year 2008 in which the literacy rate of tribal population in Attappady was 60.83%). This shows the decadal increase in literacy rate of Attappady block was 17.34% while the increase in the literacy rate of tribal people was 23.49% during the same period. This increase was many times more than that of the general literacy rate in the state, district and among the tribal areas.

This may be due to the major literacy intervention through Environmental Literacy Programme (ENLITE) conducted during the period 2001 to 2011. This programme was implemented in addition to the ongoing Continuing Education Programme (CEP). The ENLITE was conducted under the aegis of Attappady Hills Area Development Society (AHADS) with the technical and monitoring support of Kerala State Literacy Mission Authority and the State Resource Center, Kerala.

Attappady Hills Area Development Society

Attappady belongs to the revenue district of Palakkad is also credited as the only tribal development block in the state of Kerala. Attappady Block is divided into three Gram Panchayats namely Agaly, Sholayoor and Puthur. The population of Attappady as per 2011 census was 64,318, out of which, the tribal population constituted 42.95%. There are 3 different groups of tribes and they are Irulars, Mudugars and Kurumbars settled in 192 hamlets in Attappady. The Irulars and Mudugars are generally agricultural laborers, while Kurumbars are the primitive tribal group.

Many documents reveal that around 82% of the total area of Attappady was thick forest upto the year 1959. This was reduced to 20% in 1976 due to a large number of outsiders and migrants who came to settle in this area resorted to felling of trees which resulted in deforestation and soil erosion. This almost changed the marshy wet forests of Attappady as the 'desert' of Kerala. The rivers which were flowing with abundant water have now become dry. Livelihood of the inhabitants also drained. Almost half of the total area has become waste land. This has affected the social, economical and health conditions of the aboriginals who were mostly the direct dependants of the forests. Land encroachment, malnutrition, anemic problems, exploitation, alcoholism and other social issues increased as a result of this. The state and central government spend cores of rupees for the upliftment of Attappady but the environmental and social issues remain the same till date. To tackle the environmental issues and to promote the socio-economic conditions of the inhabitants, mainly the tribes, the Government of India launched a project with the financial aid of Japan Government namely 'Attappady Waste Lands Comprehensive Environmental Conservation Project' (AWCECOP) in 1996. In order to manage this project, the State Government constituted an autonomous organization 'Attappady Hills Area Development Society' under the department of rural development. The main objective of this Society was to rejuvenate the distorted environment of Attappady in a sustainable and participatory mode considering the total development of the aboriginals in an eco- friendly manner.

Environmental Literacy programme

Literacy was not a component of the environment conservation project of AHADS till 2004. During the course of development activities, it has come to the notice of the authorities that illiteracy and lack of education was hindering the process of sustainable development. Meanwhile the Continuing Education Programme also started in the

district and the Palakkad District Literacy Mission Authorities sought the support of AHADS to eradicate the social cause of illiteracy from this tribal belt. Simultaneously demands were also raised from the tribal community for literacy and continuing education and they informed that they are interested to study in their own language and not in the state standard mother tongue. The three tribal groups in Attappady have three different languages i.e. Irula, Muduga and Kurumba as their own and these languages have no scripts too. To meet the felt needs of the tribal population, AHADS joined hands with Kerala State Literacy Mission Authority and State Resource Center Kerala and the result was a new concept of developing literacy primers in tribal language with scripts, using Malayalam was developed. Since AHADS project had focus on environmental rejuvenation, they insisted to include lessons based on environmental issues and thus focus of the literacy primers were more on these. Having this dual object of literacy and environmental education, the programme was named as 'Environmental Literacy Programme' which was in short called 'ENLITE'.

The major activities of ENLITE Programme were - Literacy classes in tribal language, preparation of curriculum focused on Environment education, development of literacy primers in tribal languages, selection of Instructors, especially women, from the same hamlet and community, participatory training for inclusive development and education, preparation of training and learning materials in an inclusive and participatory mode, use of Malayalam scripts for the spoken tribal languages, preparation of Link Primer from tribal languages to Malayalam, launching of Equivalency courses for 4th, 7th, and 10th standard level, awareness generation and sensitization on all social issues, opportunity for the performance of traditional dances and music, strengthening the tribal medical practitioners with scientific base, empowerment of women to increase their status, leadership trainings and strengthening of people's organizations, vocational and traditional skill upgradation training, regular monitoring and field visits and publication of monthly information Bulletin - 'jedhe', 'uisire' in tribal language.

The ENLITE programme started in September 2004 in 12 hamlets of Attappady. The classes at night were organized at the door steps of the tribal people in their hamlets. The tribal language was the medium of instruction and an educated tribal woman from the hamlet was selected as the Instructor. The classroom teaching not only taught the tribal people to read and write but also develop an understanding of the surrounding natural environment. After the first phase evaluation, the classes were further extended to 120 hamlets and continued till the winding-up of AHADS project in 2012 in the form of Bridge and Equivalency courses. As per the records of AHADS, around 2000 tribal people have benefited in this programme.

Hence, the researcher conducted a study on this.

Relevance of the study

The ENLITE programme was unique and an innovation in the field of tribal literacy

and education. It was a new method to educate the tribal non-literates who speak in their own dialects which have no written scripts. The effort of AHADS to make them literate by using the tribal languages with the help of Malayalam script found to be a new method for educating the people who speak vernacular languages with no scripts. The researcher believes that the dual concept of providing literacy through the tribal language and familiarizing them the state language and also providing value education on environment conservation is a step ahead for the overall development of tribal people in Attappady. Moreover, the method can also be helpful for the educators, officials and outsiders to learn, speak, and understand the tribal languages more easily since the scripts are used with the state language Malayalam. A deep study on the impact of this programme can give light to the educational and empowerment possibilities of these types of people who have dialects without scripts and can bring out issues and problems related with the programme. Thus, the study can bring forth the strengths, prospectus and limitations of the programme which can be helpful for the education and development of large number of illiterate tribal people and other similar communities in Kerala, India and even abroad.

Beneficiaries

The target group included illiterate and semi-literate tribal people in the then 187 tribal hamlets of Attappady. Children under the age of 15 who discontinued from schools or not attended school at all were also permitted to attend the classes

Objectives of the Study

1. To identify the various programmes organized by AHADS in connection with ENLITE programme.
2. To analyze the impact of ENLITE Programme on the educational, social, cultural and environmental conditions of the tribal people in Attappady.
3. To explore the possibility of providing literacy to the illiterate tribal and non-tribal people who speak vernacular languages without script.

Methodology of the study

The study conducted was empirical in nature. Since the programme and study were the first of its kind, the present study was more exploratory. The data was gathered through survey of sample groups selected from the target population. Hence, the method was mainly survey.

Selection of sample

Samples were selected from the beneficiaries [learners] and functionaries of

ENLITE programme. Stratified random samples of fairly adequate size from three tribal groups were considered for the selection of beneficiaries. In all 570 was the total sample taken out of which learners were 460, Instructors 60, officials 30 and community representatives were 20. The details of the primary data given in the following table:

Table - 4
Selection of sample

No.	Sample	Number
1	Learners	460
2	Instructors	60
3	Officials	30
4	Community representatives	20
	Total	570

Tools for data collection

The data was collected by using Interview schedules for learners and community representatives and Questionnaires for Instructors and officials. The questions in the tools were pre-tested and corrected after verifying with the selected groups and in consultation with experts/subject specialists.

Analysis of the data

The primary data collected were grouped, coded and tabulated in simple table and analysis was done based on the relevant statistical methods and cross checked with secondary data. Interpretations were done based on the same.

Major Findings

1. A major literacy intervention in Attappady during 2001 to 2011 period was ENLITE. Hence, it can be stated that the literacy level of tribes in Attappady during the Census decade (2001-2011) increased mainly due to ENLITE programme.
2. Irulas being the major tribal group in Attappady, most of the literacy classes were organized for them. It has been found that 63% of the ENLITE classes were in Irula hamlets followed by 27% in Muduga hamlets and 10% in Kurumba hamlets.
3. It has been found that all the Instructors of ENLITE programme belongs to tribal communities of Attappady and the clans of Instructors also at par with the classes.

4. Educational qualification of the Instructors engaged in ENLITE programme is of 10th standard or above.
5. Vast majority of the learners found to be in the age group 15-45. Hence, they are either youths or middle aged persons. Providing education to persons in that age group contributes to the overall development of the nation in general and tribes in particular.
6. Study also revealed that female benefited more in ENLITE programme with 78% participation while male was 22%. This indicates the higher level of interest shown by tribal women in literacy and continuing education as well as in environment conservation. It is also important that among the illiterate men, majority found to be not attending the literacy classes regularly. Following table indicates participation of male/female from different tribal categories:

Table - 5
Sex wise distribution of learners

No.	Category	Male	Female	Total
1	Irula	74 (16%)	174 (37%)	248 (53%)
2	Muduga	20 (4%)	134 (29%)	154 (33%)
3	Kurumba	8 (2%)	56 (12%)	64 (14%)
Total		102 (22%)	364 (78%)	466 (100%)

7. It has become clear that the increase in literacy rate of Attappady tribal block as a whole and of tribal people in Attappady block between 2001 and 2011 Census was more due to the implementation of ENLITE programme.
8. ENLITE classes enabled the illiterate tribal people to learn literacy not only in their own tribal language but also enabled them to use/write Malayalam scripts.
9. ENLITE class provided opportunity for the illiterates, neo-literates and dropout tribal adults to continue their education through equivalency classes. The learners who completed ENLITE class joined for 4th standard equivalency and those who pass it have joined for 7th and 10th equivalency classes. Hence continuing education made possible through ENLITE programme.
10. Dropout of students from schools has decreased and enrolment in schools has increased during the decade. The confidence level of parents for supporting their children in education has also increased mainly because of ENLITE programme.

11. Instructors being from the same community and hamlet and the classes are also in the same hamlet motivated the learners a lot to participate and interact more freely in the classes.
12. ENLITE programme resulted for the documentation of tribal languages through literacy text books (primers), hand books and monthlies like 'jedhe', 'uisire', though the script used was Malayalam. The usage of tribal language in ENLITE programme promoted the educational interest of the tribal people. They also recommend ENLITE model for other tribal communities as an effective way of teaching literacy. The usage of tribal languages in environment literacy programme was helpful for the instruction or teaching illiterate tribes in Attappady.
13. Since the Instructors consider it as their responsibility to up-bring their fellow community members, emergence of new leadership occurred gradually. The honorarium received by the Instructors was a financial support for their families and has become one of the motivational factors. This encouraged others also look for such an opportunity.
14. Study reveals that usage of Malayalam scripts for the literacy primer in tribal language was comfortable for both the tribal learners and Instructors. The methodology adopted in ENLITE class helped the learners to study in their own mother tongue and the tribal Instructors found it easy to teach them as it is also their own language. The methodology adopted in ENLITE programme made them literate in both tribal languages as well as in Malayalam scripts. With the support of a bridge text the learners could easily acquire proficiency in Malayalam. Thus the ENLITE programme helped the tribal learners to study and understand state language Malayalam more easily.
15. There was an active involvement and participation of learners in the classes. This was because of the curriculum and the strategy of instruction. The text (ENLITE primer) in the mother tongue of tribals which contains matters related to their life and surroundings attracted the learners to involve actively and contribute positively in the classes.
16. ENLITE programme helped tribal people to learn and propagate their own languages and also to protect them for the generations next.
17. Study also proved that literacy classes focused on environment have promoted the environment and vegetation of Attappady. The analysis revealed that learners planted, protected and promoted planting of trees and plants.
18. The awareness generated motivated the learners to involve actively in water conservation programme which resulted in increased availability of water in Attappady. The dried-up rivers and water sources rejuvenated because of the

environment protection programme of AHADS, where the learners and Instructors were the active participants. All the respondents stated that the uncontrolled grazing of cattle and sheep that hinders the growth of plants and forest could be reduced due to the awareness generated through ENLITE classes as well as through the intervention of AHADS.

Table-6
Impact on Environment

No	Environmental Impacts	Agree n=466	Percentage
1	Helped to increase or improve the vegetation	462	99.14
2	Promoted and planted trees and plants	460	98.71
3	Increased the availability of water	440	94.43
4	Promoted Environment Conservation programmes	444	95.27
5	Dried-up rivers and water sources rejuvenated	442	94.85
6	Encouraged controlled grazing of cattle and sheep	466	100.00
7	Reduced soil erosion	439	94.21
8	Decreased cutting of trees and plants	448	96.13
9	Limited the use of fire wood	398	85.40
10	Reduced use and throw plastics	462	99.14
11	Started water harvesting through different methods	456	97.85
12	Traditional and non-traditional agricultural practices improved	464	99.57
13	Use of chemical pesticides and fertilizers reduced	458	98.28
14	Availability of water and Water sources increased	452	97.00

19. Soil erosion could be reduced due to various programme of AHADS. Around 96% of the learners stated that cutting of trees and plants reduced a lot in Attappady. Majority of the learners stated that they have controlled or reduced use of fire wood. This automatically reduced cutting of trees and plants and thus promoted environmental sustainability. Use and throw of plastics have been reduced a lot, instead paper bags preferred. The traditional and non-traditional agricultural practices in Attappady improved a lot.
20. Around 98% of the learners said that use of chemical fertilizers as well as pesticides has been reduced and use of natural bio-fertilizers like cow dung increased. The intervention of AHADS helped to maximize the water harvesting practices and the availability of water through various sources has also increased due to environment rejuvenation.
21. The status of women in Attappady has improved. All the respondents stated that empowerment of tribal women in Attappady happened mainly through ENLITE programme, which provided opportunity to tribal women for education and self-realization This has resulted in strengthening of community organizations such

as 'Thai Kula Sangam,' 'Ooru Vikasana Samithi' etc. and reflected in the panchayat elections also as many women contested as the representatives of community organizations independently.

22. The tribal culture has been recognized and tribal songs and dances promoted as part of ENLITE classes. The traditional practice of agriculture, food, medicines etc. of the tribes in Attappady has got primacy. The traditional tribal arts and crafts and the rituals and values were promoted due to ENLITE programme. It has been proved that the social and cultural traditions of tribes in Attappady has been protected and promoted because of AHADS's intervention through ENLITE programme.
23. Social issues like alcoholism; drug addiction etc have been reduced considerably because of ENLITE classes.

Suggestions

1. In order to sustain the process of development, especially tribes, it is necessary to improve the literacy and educational level of tribal people, including the primitive tribes, who reside in the remote forest areas. Special efforts can be made both by central and state governments to improve the literacy level of tribes by organizing classes for non-literates.
2. Kerala has around 40 different groups of tribes and they converse in their own dialects. As everyone has the right to be educated in their own mother tongue, the literacy and continuing education programme for tribes can be made in their dialects. Also in schools tribal languages can be used with Malayalam script upto primary level to enable the students to understand the contents of the lessons better and at the same time can learn the languages fast.
3. Environmental literacy programme of AHADS in Attappady was a successful model in tribal literacy and environment protection. Similar such method can be used elsewhere also to educate the tribal people on environment and teach the non-literates.
4. Teaching-learning materials used in Attappady with tribal languages in Malayalam script found to be a successful one. This can be replicated in other places and also in other languages too.
5. ENLITE model enabled the teachers or outsiders to pronounce the tribal language more easily and can also be used as a method for the teaching and learning of indigenous languages. This will be of great use for the development workers who are posted in tribal areas.

6. Once again it has been proved that in the absence of assured continuity of follow-up programme in literacy made the neo-literates to become illiterates in course of time. Hence, follow-up and continuing education should be an integral part of the whole programme.
7. There is an urgent need to start lifelong learning centers in all the tribal hamlets of Attappady so that continuing education is ensured. Adequate opportunities should be provided for those successfully completing the literacy classes to go for horizontal mobility in pursuing further education.
8. Educated youths/students from the same or nearby tribal hamlets made as literacy instructors not only provided employment opportunity and financial strength but also motivated them to serve for the development of their own people.
9. As part of motivation the course curriculum and reading materials prepared centered round the life of tribal people like the environment in forest, health, water, agriculture, development and social issues. In literacy classes tribal songs, music, dance were used more frequently. This motivational concept is found to be easily replicable in other places also.
10. Formation of community based organizations, especially of women, can be encouraged which found to have contributed a lot for the empowerment of women and emergence of new leadership among the tribes.
11. High female participation in ENLITE programme indicates that women are interested to study if given opportunity. Hence, it is necessary to provide them adequate opportunities not only in literacy programme but also in regular system of education.

Conclusion

Most of the tribal population in India lives in interior forest areas and remote areas, may be they like the natural environment and inside desire of keeping their own identity for long. However, they may not know that indiscriminate use of forest areas and forest products both by them and by the encroachers from outside may one day deprive them of the luxury of present life and also for the future generation. As the world is growing fast with globalization and fast growing economies, no one individual or groups can be kept outside the purview of development. Inclusive growth can be a reality only if all the sections of the society grow together and enjoy the fruit of development. Hence, tribal population also must be an integral part of development. However, care should be taken to keep their individual identity while they are integrated to the mainstream of life.

The attempts made by Attappady Hills Area Development Society (AHADS) to

create awareness among the tribal people on the need of protecting the environment and address the social issues which cause a lot of damage for their personal life and development were appreciable. Though, literacy was not a programme of AHADS in the beginning, but by introducing Environmental Literacy Programme (ENLITE) in the overall efforts not only enabled the learners to learn more about the environment protection and water conservation but also helped to acquire literacy skills through their own dialects in state standard language of Malayalam. Different methods used in this programme as enumerated above have given faster pace for achievement. The best thing is whatever has been followed in this programme can be easily replicable in other places/other groups.

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Tamil News Television Channels - Expectations of Viewers

M. Vijayaraj
R. Rajan

Introduction

Mass Media is the technology that is intended to reach the mass audience. It is the primary means of communication used to reach the vast majority of the general public. The most common platforms for mass media are newspapers, magazines, radio, television and the internet. The general public typically relies on the mass media to provide information regarding political issues, social issues, entertainment and news in pop culture. The mass media has evolved significantly over time. The significant advancement made in this area can be fully appreciated only if one knows how the latest news and information was communicated in the past. Before internet, television or the radio, there was the newspaper which was the original platform for mass media. For a long period of time, the public relied on writers and journalists for the local newspapers to provide them with the latest news in current events. Centuries later, in the 1890s, came the invention of the radio which soon could supersede the newspaper as the most pertinent source for mass media. Families used to gather around the radio and listen to their favourite radio station programmes to hear the latest news regarding politics, social issues and entertainment. Later on came the invention of the television. The television could soon replace the radio for the most effective platform to reach the general public. Today, the internet is the most relevant form of mass media and has become a major tool for news outlets. Since the evolution of the internet, the general public is now able to access those same news outlets in an instant with just a click of a mouse, instead of having to wait for scheduled programmes. Through the mass media, news outlets have a major influence on the general public and a major impact on the public's opinion on certain topics. In many cases, the mass media is the only source that the general public relies on for news. Mass media also plays a critical role in educating the public.

In the 2000s, classification of seven mass media became popular and they are (enumerated in the order of introduction):

- Print (books, pamphlets, newspapers, magazines, etc.) from the late 15th century
- Recordings (gramophone records, magnetic tapes, cassettes, cartridges, CDs and DVDs) from the late 19th century

- Cinema (from about 1900)
- Television (from about 1950)
- Internet (from about 1990)
- Mobile phones (from about 2000)

Each mass medium has its own content types, creative artists, technicians and business models. With all competition between the mass media, television is still popular because of the visuals in colour and provides a lot of value added information.

Television is a telecommunication medium used for transmitting sound with moving images in monochrome or in colour, and in two or three dimensions. It can refer to a television set, a television programme, or the medium of television transmission. The television is a mass medium, for entertainment, education, news and advertising. Television becomes available in crude experimental form in the late 1920s. After World War II, an improved form became popular in the United States and Britain, and television sets became common in homes, business establishments and institutions. During the 1950s television was the primary medium for influencing public opinion and in mid 1960s, colour broadcasting was introduced in the United States and in most of the developed countries with the result colour TV sets became popular.

Television signals were initially distributed only as terrestrial television using high powered radio frequency transmitters to broadcast the signal to individual television receivers. Alternatively television signals were distributed by coaxial cable or optical fibre, satellite systems and via the internet. Until the early 2000s, these were transmitted as analogue signals but countries started switching to digital, which was expected to be completed worldwide by late 2010. A standard television set is composed of multiple internal electronic circuits, including a tuner for receiving and decoding broadcast signals. A visual display which lacks a tuner is correctly called a video monitor rather than a television. A television station is a type of broadcast station that broadcast both audio and video to television receivers in a particular area. Traditionally, TV stations made their broadcast by sending specially- encoded radio signals over the air, called terrestrial television.

In the past few years television became so famous in India with the result a large number of television channels have come into existence, of course many on payment. This is apart from the foreign channels beamed in India. Though the viewers cannot see all the channels, they have the freedom to choose the desired channels for which the fee differs from one package to the other. As the channels are in different languages, the viewers normally choose those channels of their desired language and programme interest.

Tamil Nadu is not an exception. There are a number of Tamil channels beaming programmes right from entertainment, news, matter of interest for the general public,

culture, even religion, etc. Some of the channels are exclusively for news and some others are for cinema related programmes. Religious groups also have opened channels in which religion related programmes – prayers, songs, discourses are telecast.

Hence, a study was conducted to know the expectations and choices of viewers in Tamil Nadu about the Tamil Television Channels.

Review of Literature

Before conducting the study the investigator conducted **review of literature** to know from the past studies the outcome of the viewers' opinion and expectations on the television programmes. They are:

- (i) Variable affecting the coverage of Arab issues on Arab News Channels was conducted by Hala El- Baghdadi, Cairo University, Egypt (2007). The main findings are:

The most important news channels on which the Egyptian and Qatari elite rely are arranged in terms of preference as follows: Al Jazeera, Al Arabiya, Nile – Nile news, BBC, CNN, Al Hurruh and Euro news. A Nile news channel has failed to establish itself as a channel for the Arab elite in general and specifically outside the Arab Republic of Egypt. Elites hardly feel the presence of such a channel, despite the passage of nearly ten years from its inception. 75.7% Of the Qatari and Egyptian elite indicated that Al Jazeera contributes to changing public opinion on current events. Results confirm the superiority of Al Jazeera in equipping its journalists with a database of information and communication technology needed to prepare news materials. Results have also proven that journalists at Nile television are not short of professional competence or academic qualification compared to their counterparts in Al Jazeera, but the nature of work environment is what sets both channels apart. All Al Jazeera employees indicate that external political pressure on the channel dramatically affects the news coverage of Arab issues in terms of quality and quantity, especially in countries where the channel's offices have been shutdown.

- (ii) Another study on Influence of User Comments on Perceptions of Media Bias and Third-Person Effect in Online News was conducted by Brian Houston & Glenn J. Hanesen (2011). The results indicate that:

User comments accompanying online content can influence perceptions of bias in media depictions of presidential candidates. Additionally user comments can influence perceptions of how much online news affects the political attitudes of others (third-person perceptions).

- (iii) A study on viewer's perception towards watching national English news channels with special reference to Malabar region of Kerala was conducted by Mohana Krishnan P.C (2014). From this study, it was found that:

Viewers find television news is attractive as it provides the advantage of viewing visuals simultaneously listening to the news. In Kerala almost all the segment of population - from children to grownups are eager to watch news updates. Most of the native viewers have instant preference for local news channels than other news. But their perception towards watching other news channels, especially English is unknown. The project holds the key since it analyzes viewer's perception towards watching national English news channels.

- (iv) Partisanship influence on the perception of credibility examining the determinants of news media in Tamil Nadu was conducted by – N. Rathi Chithra and others (2014). The study on research in media credibility at global level elucidate that:

People's trust in media has been plummeting gradually year by year. In America the credibility of news media has been negative. A report issued by pew in 2010 shows that 63% of the Americans say that news stories are inaccurate. There has been decline in the believability rating of several popular news organizations among the public in America since 1990s. The prevailing credibility gap all over remains a great concern globally. Media educators and editors of newspapers consider the erosion in media credibility as a major concern and suggested public journalism as a means to improve the credibility of media (Dickson and topping, 2001). However, in India the trend is different. Lowy institute for international policy and the Australia Indian institute, Australia, conducted a survey in India which showed that 86% of Indians believe that Indian news media gives accurate news on events. Yet, credibility research which is exhaustive and widespread in western countries, is slowly gaining ground in developing countries like India as only a few studies were conducted to assess the performance of media among the audiences.

- (v) The study on Viewer's perception and expectation content with reference of Tamil news channels in Chennai was conducted by S. Selvabaskar and others (2014), in Tamil Nadu. The objective of the study was analysing the news viewing habits of people and to find out the viewer's opinion about Private TV News channels with reference to awareness, positioning and programme content and how it influences the viewer's satisfaction level. 200 respondents were approached with a structured questionnaire containing items on the above mentioned objectives from Chennai. The results indicate that:

There is a strong preference among the viewers for an entertainment oriented programme in place of mere current news. Further, health awareness, travel and life style programmes are very much expected.

- (vi) A Study on Television News Channel in Tamil Nadu was conducted by Batabyal-(2015). Television is basically the broadcasting of moving picture and the sound to the audience effectively. Most of the time television stays as remarkable evidence about an issue. As an example, an incident quoted from the book, screening culture, viewing politics by Purnima Mankekar (1984).

A hectic and rewarding year is drawing to close for S.S Gill, India's Secretary for the Ministry Information and Broadcasting. On a Special mission authorized by Prime Minister Indira Gandhi, he has spent the year setting-up hundreds of television transmitters that will draw the remotest corners of the nation into the ambit of Indian Television's newly launched National Programme. Suddenly Mrs. Gandhi was assassinated. Ironically, the first TV images viewers nationwide saw were of her body lying in state, and close-ups of her grieving son Rajiv Gandhi. Within a few minutes, Rajiv Gandhi was elected as Prime Minister. The queen is dead; long live the king (Mankekar, 1999). The magic of Television has made itself felt.

Objectives of the study

- To assess the opinion and expectation of Tamil News viewers of television channels in Tamil Nadu.
- To find out the significant difference if any on the opinion and expectation of Tamil News viewers of television channels in Tamil Nadu with regard to certain demographic variables such as age, gender, community, religion, educational qualification, occupation, annual income, marital status and nativity, etc.
- To find out the relation, if any, between opinion and expectation of public on viewing Tamil News in television channels
- To suggest Tamil News viewers' opinion and expectations to the Television channels to make and present the news programmes better.

Hypotheses

The following are the hypotheses framed for the present study:

1. There is a significant difference on the opinion and expectation of viewers about the Tamil News in Television Channels in relation to their age.

2. There is a significant difference between Men and Women viewers about the opinion and expectation on Tamil News in Television Channels.
3. There is a significant difference on the opinion and expectation of viewers about the Tamil News in Television Channels in relation to their religion.
4. There is a significant difference on the opinion and expectation of viewers about the Tamil News in Television Channels in relation to their community.
5. There is a significant difference on the opinion and expectation of viewers about the Tamil News in Television Channels in relation to their educational qualification.
6. There is a significant difference on the opinion and expectation of viewers about the Tamil News in Television Channels in relation to their occupation.
7. There is a significant difference on the opinion and expectation of viewers about the Tamil News in Television Channels in relation to their annual income.
8. There is a significant difference between Married and Unmarried viewers on the opinion and expectation of Tamil News in Television Channels.
9. There is a significant difference between Rural and Urban viewers on the opinion and expectation of Tamil News in Television Channels.
10. There is a significant correlation between opinion and expectation of public on viewing Tamil News in Television Channels

Methodology

For the present investigation, the investigator has adapted descriptive survey method for carry out Opinion and Expectation of viewer about Tamil News in TV channels. An exclusive interview schedule was prepared for Viewers and used for the present study. A pilot study was conducted by using this tool and reliability and validity are established. The Tool includes Personal details, Channels Ranking, Opinion Scale and Expectation Scale of viewers. The method of sampling used in this study was Stratified Random Sample through which the Investigator selected 110 persons for collection of Data.

Major findings

1. Out of 110 viewers, 37 (33.6%) were males and 73 (66.4%) were females.
2. The age group of the sample viewers interviewed were 20-30 years (36.4%), 31- 40 years (17.3%), 41- 50 years (21.8%) and above 50 years (24.5%).

3. 90% of the respondents were Hindus while 7.3% were Christians and 2.7% Muslims.
4. 60.9% of the respondents belong to Backward Classes, 15.5% were SCs and STs, 14.5% belong to Most Backward Class and 9.1% Other Castes.
5. 24.5% of the respondents studied up to 8th standard, 23.6% studied up to or 10th standard, 10.9% up to 12th standard, 14.5% are Graduates 22.7% Post-Graduation and above and the remaining 3.6% Diploma holders
6. 43.6% of the respondents were daily wage earners, 23.6% employed in private organizations/institutions, 13.6% government employees, 10% students and 9.1% of them are farmers.
7. 50% of the respondents have income of up to Rs. 50,000/-, 34.5% have income range between Rs.50, 000 - 1, 00,000/- and 15.5% have income of more than Rs. 1,00,000/-.
8. 71.8% of the respondents are married while 28.2% are unmarried.
9. 70% of the respondents belong to urban areas while 30% from rural areas.
10. 81.8% of the public viewing television more than three years followed by 2 to 3 years (13.6%) and one to 2 years (4.5%).
11. 65.5% of the respondents view television only in the night hours followed by 14.5% in evenings, 10.9% in the afternoon and 9.1% in the forenoon..
12. 95.5% of the respondents informed that they view Tamil News every day.
13. 87.3% of the respondents told that national news give information more on national scenario.
14. 83.6% of the respondents opined that Tamil News channels telecast state news which found to be qualitative in nature.
15. 80% of the respondents reported that their general knowledge is increasing by viewing the news channels.
16. 58.2% of the respondents told that all the news found to be more political oriented.
17. 52.7% of the respondents informed that most of the times facts are hidden in news and 51.8% of opined that sports news is good.
18. 45.5% of the respondents agreed that the news is of no use for children/ students while 41.8% was of the view that news helps them to take precautionary measures.
19. 33.6% of the respondents conveyed that news is helpful for their profession or job.
20. 25.5% of the respondents told that trade/economic news give more benefits and there is no use for local news.

Rank for Tamil News telecast by the channels

The respondents gave the first rank to Sun TV (30.39%) followed by Puthiyathalaimurai (20.28%), Thanthi News (19.48%), Jaya News (8.25%), Raj News (8.09%), News7 (3.92%), Polimar (3.68%), Sun News (2.24%), Pothigai (1.76%), Captan TV (0.96%), Sathiyam TV (0.48%) and Makkal TV (0.40%).

Rank of Regional wise news in Television channels

35.22% of the respondents preferred national news as their first choice followed by state news (31.59%), international news (17.55%) and local news (15.62%).

Rank for Types of News Telecast in Television channels

The respondents opined that political affairs (53.47%) was the top most in news telecast in the channels followed by day-to-day affairs (15.97%), problems of the society (14.69%), national news (6.05%), election related news (4.51%), information on general topics (2.96%) and cinema (2.31%).

Expectations:

- Quality of the news needs improvement (80%).
- Use of technology (70.9%).
- News once telecast should not be repeated again and again (69.1%).
- News telecast should have credibility based on facts (67.3%).
- Reporters of the news should be neutral (66.4%).
- Advertisements during the time of news presentation may be reduced (65.5%).
- News should be without bias or prejudice (16.4%).
- News presenter's knowledge and proficiency need to be improved (24.4%).

Significant Influence of certain demographic variables on the opinion and expectations of the respondents

Age

Opinion - The age of the respondents did not have any significant influence on the opinion of Tamil News in the television channels. The mean value of 20-30 years (36.05), 31-40 years (34.81), and 41-50 years (36.13) and above 50 years (36.22) age group of respondents did not vary.

Expectation - The expectations of respondents were vary depending upon their age. The age group of 20-30 years (18.15) had higher opinion followed by 41-50 years (17.30), 31-40 years (16.16) and above 50 years (16.15).

Gender

Opinion and Expectation - The gender of the respondents did not show any significant influence on the opinion and expectation. The mean value of male (36.38 and 16.38) and female (35.66 and 17.51) did not vary significantly.

Religion

Opinion - Religion significantly influenced the opinion of the respondents. The Muslim respondents had higher opinion (37.67) followed by Hindus (35.99) and Christians (34.13).

Expectation - The religion of the respondents did not significantly influence the expectation. The mean value of Hindus was (17.00), Muslims (18.33) and Christians (18.25).

Community

Opinion – The respondents' community significantly influenced the opinion. Higher opinion was given by respondents belong to SC/ST (37.70) followed by MBC/Denotified Class (36.75), BC (35.51) and OC (34.10).

Expectation - The expectation of respondents varied depending upon their community. The age group of BC (17.81) had higher opinion followed by MBC/Denotified Class (16.75), SC/ST (15.94) and OC (15.20).

Educational qualification

Opinion and Expectation - The education qualification of the respondents did not have significant influence the opinion and expectation. The mean value of Diploma (36.50 and 13.25), 1-8 (36.11 and 15.63), 9-10(36.04 and 16.65), PG and above (35.80and 18.60), Degree (35.69 and 18.56) and +2 (35.42 and 17.83) did not vary significantly.

Occupation

Opinion and Expectation - The occupation of the respondents did not have significant influence on the opinion and expectation. The mean value of private (36.73 and 16.31), government (36.36 and 16.36), farmers (36.10 and 16.30), students (35.47and 19.07) and coolies (35.44 and 17.31) did not vary significantly.

Annual income

Opinion - The opinion of respondents varied depending on the income. The income group of above Rupees One lakh (36.94) was having higher opinion than the respondents with the annual income of Rs.50,000/- (35.84) and the range from Rs.50,000 to One lakh (35.53).

Expectation - The annual income significantly influenced the Expectation at the public about Tamil News in Television channels. The income range Rs 50,000 to 1,00,000(18.74) is higher opinion about Tamil News in Tamil Television channels,

followed by less than income of Rs 50,000 (16.44), and then the income of more than Rs 1,00,000 (15.76).

Marital status

Opinion - The marital status of the public is not significantly influence the opinion about the Tamil News in Tamil Television channels. The mean value of married (36.10) and Unmarried (35.32) are not varying significantly.

Expectation - The demographic variable of marital status significantly influences the expectation of the public about Tamil News in Television channels. The Unmarried (19.23) has higher opinion about Tamil News in Tamil Television channels, followed by Married (16.32).

Place of Residence

Opinion - The Place of Residence of the public is not significantly influence the opinion about the Tamil News in Tamil Television channels. The mean value of rural (36.09) and Urban (35.82) are not varying significantly.

Expectation - The demographic variable of Place of Residence of viewers significantly influences the expectation of the public about Tamil News in Television channels. The Rural viewers (18.64) have higher opinion about Tamil News in Tamil Television channels, followed by Urban (16.48).

Correlation between opinion and expectations of public on viewing Tamil News

In this study 'r' value between opinion and expectation of public about viewing Tamil News in Television Channels is -0.221 is significant at 0.05 levels. Hence it is found that "there is a negative high correlation between the opinion and expectation of public on viewing Tamil News in the Television Channels". Therefore, the opinion of the public on viewing Tamil News is high than the expectation of the public which is low.

Limitations of the Study

The present study is limited to Tamil news viewers of Tamil television channels of Karaikudi town and the areas around the town. The expectation of the viewers is assessed only by opinion scale. Only Tamil news in Tamil news channels have been considered for this study.

Conclusion

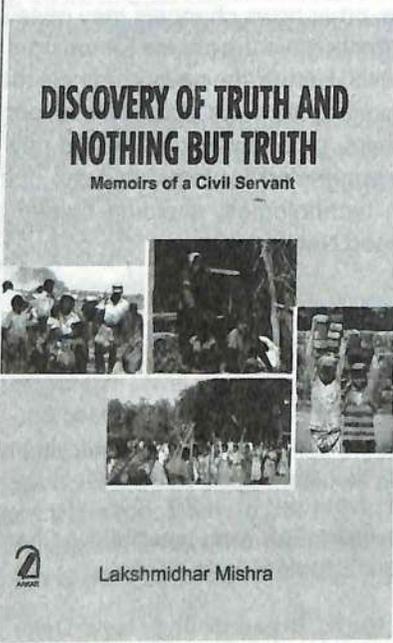
Out of Sixteen Channels, SUN TV and VIJAY TV has been found to be first and second choice for the respondents. Hence, other channels need to improve their performance so that more and more people view their programmes. Similarly, for Tamil News the SUN NEWS and PUTHIYA THALAIMURAI found to have been the top most choice for the respondents. Hence, other news channels may review their performance for improvement. The respondents gave the choice for national news first followed by state news and then local news. Hence, the news channels may like to keep the viewers opinion in mind while presenting the news. As per the respondents the news content should be on political affairs, problems/issues based news and day-to-day affairs. The respondents also suggested for improving the quality of news, utilization of latest communication technologies, avoiding biased news/ repetitions and finally present only facts based News.

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DISCOVERY OF TRUTH AND NOTHING BUT TRUTH

Memoirs of a Civil Servant

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About the book

'Discovery of Truth and Nothing But Truth: Memoirs of a Civil Servant' is not an autobiography in the conventional sense. It is primarily an issue based work. It is about a few facets in the life and career of a sensitive author spanning over 50 years (1964-2014). These have been woven around issues of land to the tiller, creation of a literate and learning society, elimination of indebtedness and bondage, custodial and juvenile justice, poverty and economic backwardness of KBK region in South Odisha, industrial sickness, migration, a few dimensions of human rights and social justice with truth as the pole star. It is also about the trials, tribulations and vicissitudes in the life of an honest and upright civil servant who placed service to humanity above self, did not mince towards when it came to stand up and revolt against tyranny, injustice and oppression and always adopted an unconventional and unorthodox approach to deal with genuine issues of human concern with total empathy and sensitivity to offer solace and relief to those who needed them most.

The book apart from these revelations rests on certain fundamental premises such as:

- There should be no occasion for any conflict of interest between representatives of the people and bureaucracy in as much as both exist for health, safety, morale and total well-being of the people;
- Government may have many organs but in essence it is one indivisible whole which will be known by how it serves the poor and what it delivers;
- An honest and upright officer should not be penalised merely because the conclusions reached by him at the end of an inquiry are found inconvenient to a particular individual or power centre;
- It is always possible to adopt a systematic and methodical approach, cut down red-tapism and delay and ensure timely justice and relief to the common man for which both government and bureaucracy are jointly accountable;
- It is possible to combine ruthless discipline of a firm and principled administrator with a passionate commitment to relieve the poor of their distress and suffering;
- There is an essential unity in all religions and that unity lies in treating mankind as a united whole despite diversity with love, kindness, compassion and consideration;
- In the ultimate analysis, development to be meaningful has to be pro-people, pro-poor, pro-Nature, pro-gender and pro-children.

The book is essentially about respect for human dignity, decency, equality and freedom as the quintessence of human rights. It deals exhaustively with the consequences of poverty, economic backwardness and deprivation, how to grapple with these forces and eventually overcome them to lay the solid foundation for a just, free, fair, decent and egalitarian social order.

Dr. Lakshmidhar Mishra is a former IAS officer who occupied several important positions including that of Union Labour Secretary in the Government of India and Senior Adviser to ILO. His work in many key social sector projects at the central level as well as in the State of Odisha span from the National Literacy Mission and labour welfare to land reforms and poverty alleviation. As a Commissioner of the Supreme Court he investigated into

the working and living conditions of workers in the stone quarries of Faridabad and Vijaywada.

After retirement he pursued his commitment to the cause of the marginalized by working for the National Human Rights Commission as Special Rapporteur and as Special Adviser to National Commission for the Protection of Child Rights. Currently he is a Senior Independent Adviser, International Justice Mission, New Delhi, an international NGO. He has won many awards for his work including the Nehru Literacy Award and the Mother Teresa International Human Rights Award. A prolific writer, Dr. Mishra's publications include *Child Labour in India* (1999) and *Human Bondage: Tracing its Roots in India* (2011).

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Our Contributors

Dr. Sayantan Mandal, Assistant Professor, Centre for Policy Research in Higher Education (CPRHE), National University of Educational Planning and Administration (NUEPA), 17-B, Sri Aurobindo Marg, New Delhi- 110 016
[e-mail: s.mandal@nuepa.org / sayantan.mandal@gmail.com]

Mohd Salman Ejaz, Ph.D Scholar, Department of Adult and Continuing Education & Extension, Jamia Millia Islamia University, Jamia Nagar, New Delhi – 110 025
[e-mail: Salmanejaz22@gmail.com]

Dr. S.K.Bhati, Professor & Head, Department of Adult and Continuing Education & Extension, Jamia Millia Islamia University, Jamia Nagar, New Delhi – 110 025
[e-mail: Satishkbhati@yahoo.com]

Prof. D. Janardhana Reddy, Senior Consultant, Department of Psychology, Dr. B. R. Ambedkar Open University, Hyderabad, Telangana- 500 033.
[e-mail: djrsvu@yahoo.co.in]

Prof. S.Y. Shah, Director, International Institute of Adult and Lifelong Education, New Delhi & Former Professor of Adult Education, Jawaharlal Nehru University, New Delhi. [e-mail: drsishah@gmail.com]

Dr. Raman P Singh, Director, Directorate of Adult Education, Ministry of Human Resource Development, 10-Jamnagar House, Shahjahan Road, New Delhi-110011
[e-mail: dae.mhrd@gmail.com]

Shri Binod Jena, Junior Lecturer, Government College, Koraput, Dist-Koraput, Odisha – 764 021 [e-mail: binodjena.eco@gmail.com]

Dr. Ananta Basudev Sahu, Technical Consultant – M & E, Directorate of ICDS, (Supported by UNICEF), Vijaya Raje Vastsalya Bhavan, Arera Hills, Bhopal, Madhya Pradesh - 462 011 [e-mail: ananta.iips@gmail.com]

Prof. M.C.Reddeppa Reddy, former Principal, Sri Venkateswara University College of Education & Extension Studies & former Director, Department of Adult and Continuing Education, Sri Venkateswara University, Tirupati, Andhra Pradesh – 517 502, [e-mail: mcr_svu@yahoo.co.in].

Dr. Jaya, Programme Specialist, Adolescents and Youth, United Nations Population Fund, 55, Lodi Estate, New Delhi: 110003. [e-mail: jaya@unfpa.org]

Dr. Deepti Priya Mehrotra, Independent Scholar and Consultant, currently Fellow with the Nehru Memorial Museum and Library, Teen Murti Bhawan, New Delhi - 110011 [e-mail: deeptipm@gmail.com]

Dr. Sudhanshu S. Patra, Content Expert, Adolescence Resource Centre, National Council of Educational Research and Training, Aurobindo Marg, New Delhi 110 016 [e-mail: psudhansu@gmail.com]

Ms. Nalini Srivastava, Programme Associate, Adolescents and Youth, United Nations Population Fund, 55, Lodi Estate, New Delhi – 110 003. [e-mail: srivastava@unfpa.org]

Ms. Asheema Singh, Project Coordinator, Adolescence Education Programme, National Institute of Open Schooling, A24-25, Sector 62, Noida 201301, UP. [e-mail: asheema.singh@gmail.com]

Prof. Saroj Yadav, Dean (Academic) & Project Coordinator, National Population Education Project and Adolescence Education Programme, National Council of Educational Research & Training, Sri Aurobindo Marg, New Delhi-110016. [e-mail: deanacademicncert@gmail.com, saroj.npep@gmail.com]

Shri Manoj Sebastian, Project Coordinator, Kerala State Literacy Mission Authority, TC No.27/1461, Convent Lane, Kammattom Road, Vanchiyoor, Thiruvananthapuram, Kerala – 695 035 [e-mail: manojthekumchery@gmail.com.]

Shri M. Vijayaraj, M.Phil Scholar, Department of Lifelong Learning, Alagappa University, Karaikudi, Tamil Nadu – 630 003 [mvraj001@gmail.com]

Dr.R.Rajan, Associate Professor, Department of Lifelong Learning, Alagappa University, Karaikudi, Tamil Nadu – 630 003 [e-mail: rajan09061958@gmail.com]

Dr. L. Mishra, IAS (Retd), Former Secretary to Govt of India (the first Director-General of National Literacy Mission), (Res. Flat No. 69, Anupam Group Housing Society, Vasundhara Enclave, Delhi – 110 096.) [e-mail: ldmishraias@gmail.com]

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The average length of a manuscript should normally be between 1500 and 2500 words; in exceptional cases, longer articles can also be accepted. Mimeographed, xeroxed or carbon copies of manuscripts will not be accepted. Manuscript should be typed in double space, on one side, with a 2" margin on A4 size paper. Footnotes and references should come at the end and not on every page. Authors are requested to submit one soft copy along with the CD (MS Word). Articles can be sent by e-mail at iaadelhi@gmail.com

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IIALE is Study Centre for IGNOU Programme

International Institute of Adult and Lifelong Education (IIALE) is study centre for Indira Gandhi National Open University (IGNOU) (Centre Code: 29049P) which will function from 17-B, I P Estate, New Delhi – 110 002. The Centre will start function soon and the courses to be offered are:

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In the last many days there is a lot of noise in all the mass media – print and electronic about Rohingya migrants moving out of their living place in Myanmar to other countries including India. Some people have shown sympathy to them and request the government to treat them as migrants and some others speak against them for having connection with extremists due to which they will be security risk for the country. India is always known for accepting migrants coming in large number from other countries due to atrocities in their place of residence but this time in the case of Rohingya India also is dragging its feet due to the needle of suspicion about the migrants who may be security risk for the country because of their suspected association with the known extremist groups who work against India. Also the great worry is that Assam is already facing a huge problem of Bengali speaking migrants for many years due to non-acceptance of them as Indians by the local people. Periodic clashes between the local Assamese and migrated Bengalis are increasingly becoming a law and order problem and the political parties taking sides only for votes in elections without bothering the national security.

Who are these Rohingya? Rohingya are largely Muslims and also an ethnic group predominantly live in Rakhine Province of Myanmar. Their language is a dialect of Bengali while Burmese is the national language of Myanmar. Though, Rohingya live in Myanmar for generations they are always considered as migrants during the colonial rule and hence, they are not granted the country's citizenship till date. As per Burmese Citizenship Law, 1982 a Rohingya can get citizenship only if proof is provided about the ancestors living in that country prior to 1823 or otherwise they are classified as "resident foreigners" or "associate citizens". This applies even if a parent is a Myanmar citizen. Unfortunately, the non-citizens can move only within Rakhine state and are not entitled to be part of civil service.

As per Union Home Ministry already India has around 40,000 Rohingya living in India. They have reportedly reached our country from Bangladesh through the land route over the years. The Home Ministry informed the Parliament that Rohingya in India are illegal migrants and will be deported as early as possible. The Ministry also issued an advisory to the states that "infiltration from Rakhine state of Myanmar into Indian territory..... besides being burden on the limited resource of the country also aggravates the security challenges posed in the country".

In this regard a case is also pending with the Supreme Court of India in which the petitioner has asked the Government of India to stop deportation plans of Rohingya from India.

If one analyse Rohingya problem one can understand that it is a humanitarian crisis. Whatever may be the religion they belong and whatever the language they

Speak, they are human beings and have the right to live peacefully which must be respected. The ill-treatment given in Myanmar to Rohingya has now become an international problem and the burden is more on India and Bangladesh. This cannot be prolonged for long and Myanmar has to take a proactive role in solving the problem as early as possible.

Already the Human Right Activists all over the world started criticizing Ms. Aung San Suu Kyi who fought for democracy and human rights for her countrymen even when she was put under house arrest for long by the military regime is not opening her mouth today though she is having full power in her country as the State Counsellor of Myanmar and can easily solve the problem of Rohingya. Her silence has already dented the image who won The Nobel Peace Prize 1991 for her non-violent struggle for democracy and human rights. The opposition to her silence over her role in Myanmar's humanitarian crisis is so strong that the Oxford College in which she studied as undergraduate has already removed her portrait from public display and placed in storage.

India must use its goodwill with Myanmar to settle Rohingya ethnic problem once and for all so that South-East Asia is peaceful in the time to come as traditionally India is a friendly country to Myanmar and Ms. Suu Kyi is also well known in India as she lived in New Delhi when her father was a serving diplomat.

Dr.V.Mohankumar

A Journey of Technology Enhanced Language Learning- Quality, Scale and Variety

Sridhar Chimalakonda
Kesav V. Nori

Introduction

India has the highest number of adult illiterates in this world amounting to 37% (287 million) on this globe. The need for customization of eLearning Systems for 22 Indian Languages with varied teaching process, content, evaluation, user interface and so on makes it an enormous task. In addition, the demand for having varied instructional designs for a large scale and variety of eLearning Systems make it a *Grand Challenge* for the Technology Enhanced Learning and Software Engineering communities. We have tried to address this challenge for the last seven years by designing several technology-driven solutions. In this article, we present the journey of our research focusing on different generations of research in Technology Enhanced Language Learning (TELL). We also discuss the key stakeholders during this research and their perspectives. We briefly emphasize design of TEL as an interdisciplinary research followed by discussion and conclusions. In essence, the main purpose of this article is to present several research directions during the design of a TELL, specifically for adult literacy in India and provide key lessons learnt for the TEL community.

A whopping 774 million adults across the globe are unable to read or write even in the digital era [1] despite massive penetration of mobile phone usage. Surprisingly, India itself has 37% of these adult illiterates, amounting to 287 million people [1] and making it a major roadblock for the development of the nation. The National Literacy Mission (NLM) of Government of India (GoI) has been thriving to address this challenge since 1988 [2]. The journey of adult literacy and adult education in India can be traced through a classic journal of adult education since 1939 [3]. There were tremendous efforts of using technology to aid adult literacy worldwide [4][5]. Researchers have used radio, television and even mobiles to reach adult illiterates in India [4][6][7][8]. A computer based functional literacy (CBFL) program has made around 1,20,000 people literate [9] whilst using laptops has helped around 60,000 people [10]. However, Adult Literacy is still an unaddressed grand challenge with sparse research on TELL for Adult Literacy.

For the last seven years, we have been working on creating several technological aids to address adult literacy challenge in India with our research spanning across Educational Technologies [11][12], Software Engineering [13] and Human Computer Interaction (HCI) [14]. The focus of our research was to create societal impact

through research in computer science specifically, advancing and applying software engineering approaches to accelerate the design and customization of educational technologies based on well-established learning methodologies [15]. We have very briefly summarized some of these different perspectives in [12]. Our initial focus was on automating the development of a family of eLearning systems for adult literacy using TALES approach [16]. We then proposed GAMBLE framework as a way to align learning technologies with learning methodologies [17]. We then designed an ontology-based framework to systematically model different aspects of instructional design [18]. In our recent research efforts, we took a holistic perspective and designed a patterns-based approach to model Instructional Design and TEL systems [19]. We have also developed a Software Product Line (SPL) approach to model a family of instructional designs that can (semi-)automatically generate TELL systems for varied instructional designs [15]. A software product line is a systematic approach to produce a family of similar but distinct products by capitalizing on the commonality that software products share in a particular domain [20] and we have been employing SPLs in the domain of educational technologies for the last seven years [13][15][16][21][22].

The main thrust of this article is to summarize our journey towards a synthesis of these experiences as a way to understand the architecture for design of TEL systems. Even though this journey is a specific case of TELL for Adult Literacy in India, we believe that the experiences and lessons learnt are important and applicable to other areas of education as well. The rest of the article is as follows: We then discuss the key stakeholders and their perspectives in *Section 2*. We present our journey of TELL for adult literacy in *Section 3* discussing the key generations of technologies followed (*Figure 1*) by an interdisciplinary view of TEL in *Section 4*. We then briefly present our evaluation in *Section 5* and finally end with conclusions.

1. The Key Stakeholders and their Perspectives

Understanding key stakeholders and addressing their concerns is a critical aspect during the design of TELL. In our journey of seven years, we have interacted with several stakeholders and captured their perspectives as shown in Table-1.

(i) *Adult Learners* - "I don't need literacy unless it helps me improve my life" says Ramya, a 28 year old servant maid, who stopped formal education at the age of 8- It is a tough challenge to motivate adult illiterates to pursue education at their age mostly as they are busy working for their lives. During our interviews with 40 women adult learners, we found that they cannot take the pain to come and attend classes to learn how to read and write unless they see a direct value add for them. They can guide their children, read news papers, sign boards, feel more confident but this was not enough to pursue them to study again. Skill based literacy and income based value-add are two most important criteria to motivate learners. TELL must focus on

motivating their learners and sustaining their interest using technology. Earning money through mobile-based data entry is an example for attracting them towards literacy.

Table-I
Stakeholders in Technology Enhanced Language Learning

Stakeholder	Role
Teachers (Preraks)	Who are responsible for teaching with no or minimal knowledge of computers
Learners	Adult illiterates - People who can speak their language but cannot read or write
Subject Matter Expert	Who knows the content to be delivered to learners
Language Experts	Experts who handle the linguistic aspects of TELL system
Psychology Experts	Who decide learning methodologies from cognitive and psychological aspects
Learning Experts	Who are aware of various learning methodologies and adapt them appropriately for the current context
Instructional Designers	Who use instructional strategies to enrich the experience of teachers and learners
Instructional Technologists	Who develop and deploy educational technologies to aid instructional strategies
Software Developers	Who actually implement and use technologies to develop TELL system
Maintenance Engineers	Who maintain the instructional software for evolving requirements
Usability Experts	Who assess and improve the system from usability and HCI perspective
Field Experts	Who deploy TELL system on the field and evaluate technology
Government Authorities	People at multiple levels in Government are involved including decision makers, managers, administrators and volunteers at grass root level
Voluntary Organizations	Who support deployment of TELL system on the field
Researchers	Who pose important research challenges from learning methodologies, learning technologies, software engineering and HCI perspectives

Source: Adapted from [23]

(ii) *Teachers (Preraks)*- Can we get teachers for 600,000 villages in India? Even if we get, can we ensure the quality of instruction? The teachers (*Preraks*) for adult literacy in India are often trained for a couple of days and then facilitate a *class* using NLM's instructional material. The key contribution of technology for teachers is to capture best teachers' teaching process into technologies such that the essentials of teaching adult illiterates is taken care by technology and the teachers can experiment with their own ideas. Our approach in *Section 3.4* and *IDont* framework are driven by this need.

(iii) *Instructional Designers and Content Developers* - Designing a learning methodology for working adult illiterates is a complex task and more so if it has to work for 22 Indian Languages and their variants whilst providing scope for customization for every specific instance. Instructional designers at state level have followed NLM's IPCL methodology and created instructional material as per the guidelines for all Indian Languages [24]. However, most of the times, the instructional designers of

adult literacy were not aware of technology and only created instructional material manually. The embedded experience of instructional designers in process and material makes it difficult to synchronize TELL with learning methodologies. In our approach, we used Pattern Oriented Instructional Design, IDont and ontologies to capture different aspects of *Adult Literacy Instructional Design*. A major challenge here is to provide instructional designers with tools that ease the process of creating instructional designs using ontologies.

(iv) *Software Developers* - TELL requires software developers to finally develop eLearning systems based on *Adult Literacy Instructional Design*. However, a lack of emphasis by software developers to align TELL with underlying learning methodologies leads to technologies that do not support the ultimate cause of enhanced learning. So, it is critical to design TELL based on Instructional Design, which is the main focus of our approach discussed in *Section 3.3* (POID!TELL Systems).

(v) *Researchers* - TELL is an interdisciplinary area requiring researchers from multiple disciplines to collaborate and contribute to a solution. There is a need for researchers to investigate ways to enhance learning of adult learners along with design of novel and innovative educational technologies. Software engineering researchers can help in reducing technological effort for creation and maintenance of TELL systems while HCI researchers can focus on improving usability aspects of technologies, tools and eLearning systems for teachers, learners and others.

(vi) *Government of India (GoI)* - It is not possible for individuals, NGOs and corporate to reach 287 million adult illiterates spread across India without the support of GoI. GoI has necessary infrastructure, administration, funding and huge network to reach to the masses. Even though there is a strong need for ICTs in Adult Literacy, one major worry is to provide necessary infrastructure and get adult illiterates to the class. "Unless we get our infrastructure and other problems sorted, what is the use of technology?" – A senior GoI official revealed us when asked about his reaction to use of technology for adult literacy. Additionally, most of the people working in adult literacy have limited computer proficiency and fear losing their jobs if technology is used to support adult literacy.

There are several other stakeholders in the context of adult literacy in India [23]. In that article, we discussed the critical issue of enhancing *communication, collaboration, cooperation and coordination (C4)* among all stakeholders of TELL along with potential solutions. We have also exploited the ideas of *patterns* and *ontologies* as a basis for fostering C4 between various stakeholders.

2. A Journey of TELL for Adult Literacy In India

India has a long history of using technologies for adult literacy [4][6][7][8] with several initiatives at national level by NLM [2] and UNESCO at international level [5]. A

radio forum to reach adult learners was experimented as early as 1976 and satellite televisions are used in [6] with computer and laptop based solutions for literacy in [9] and [10] respectively. TCS, an Indian Software House has been contributing to adult literacy since 2001 [10]. We were closely associated with this initiative during the early stages of our research [16]. In this section, we present different generations of technologies for adult literacy in India, which we briefly discussed in [12]. *Figure 1* shows the role and progression of our research during the design of technologies for adult literacy in India. We consciously relented from devising our own learning methodologies and material but rather relied on well-established ones such as NLM.

Teaching reading skills by using same language subtitling of songs on television increased motivation of learners [25][26] but does not support interaction. Initiatives that aimed at children include *The Bridges to the Future Initiative (BFI)* and *Hole-in-the-Wall* project [27]. Mobile-based solutions for adult literacy have shown potentially positive results [28]. However, a detailed literature review of mobile technologies for adult literacy has shown the need for extensive research to validate the effectiveness of mobile solutions for adult literacy [28][29]. An experiment of using mobile phone for adult literacy showed promises as well as several challenges [30], mainly in terms of developing the mobile apps for varied languages.

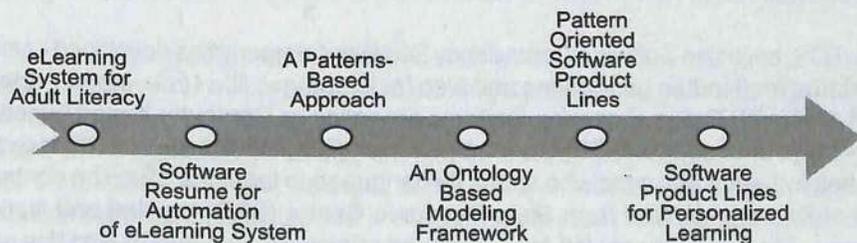


Figure-1: Design of educational technologies for scale and variety – A research journey

Visibility of alphabets on low-end mobile phones is another issue with use of mobile phones in the context of adult literacy even though it can be addressed if smart phones are available at lower cost in the future. The effectiveness of solutions that use their own instructional material is yet to be evaluated as they might not work for all Indian languages [31]. A review of tablet software for improving adult literacy suggests the use of games for increasing learner engagement [32] but the tablet software is designed for *English* and requires significant development effort if it has to be designed for the scale and variety of adult literacy in India. A report from Indian journal of adult education summarizes the use of ICTs for adult literacy and their inadequacy for mass scale of India [7].

A study based on 2011 census data emphasizes the inadequacy of current programmes for adult literacy in India and anticipates that it might take 2050 to achieve 100% literacy rate using current approaches [33]. A research agenda post-2015 for literacy lists 10 key priorities emphasizing the need for technology to be available in the local language of instruction particularly in developing countries [34]. The article also underlines the need for basis of pedagogy for ICT-based solutions to improve quality of instruction in literacy [34], which is severely lacking in most of the current technologies [34]. On the other hand, an analysis of the literature on technologies for adult literacy alleviates several concerns (i) teaching adult illiterates requires a different pedagogy [24][35] (ii) lack of pedagogical basis for ICTs dents quality of instruction [36] (iii) existing work focuses on design of educational technologies based on a fixed instructional design and is not aimed for the scale and variety of 22 Indian Languages and variants.

In this section, we will briefly present different generations of technology solutions for adult literacy in India as part of our research journey.

2.1 Technology for Adult Literacy – A multimedia based solution for teaching 3Rs

How to facilitate learning of 3Rs (Reading, wRiting, aRithmetic) by using technologies?

TCS, an Indian Software Consultancy Services Company has developed Learning Systems for 9 Indian Languages and also for languages like *Urdu, Moore, Spanish and Arabic* [9]. These eLearning Systems are called as Computer Based Functional Literacy (CBFL) software. CBFL is multimedia oriented software, an eLearning System for helping *adult illiterates* who speak the language to learn the 3Rs. The content of this software is derived from State Resource Centre (SRC) created and National Literacy Mission Authority (NLMA) approved printed primers addressing this need. The pedagogy embedded in these primers is to start with known things (known words and phrases), build relations with them to learn / discover new things from the known (new syllables and their scripted depiction), and build up the newly learnt things to the extent of being able to read or write anything in the language in question (learn the alphabet, their depiction through the script, their phonetic association, and the rules for combining these sounds to form syllables and words). This gradual progression from the known to the unknown, the latter being systematically and rationally derived from the former, needs to be repeated sufficiently for cognitive learning to take place. Whilst the above pedagogy attends to learning to read, the words, phrases, and sentences are chosen thematically, to create social awareness amongst the learners, discussion on which will lead to the true value of literacy amongst learners. This carefully graded pedagogy is constant across all Indian Languages, as they all share a phonetic approach to the relation between sound and script, between the aural and the visual. Indeed, the completeness of the approach

is founded on the idea that enough cases, of words and phrases related to the social awareness theme can be derived so that, by the end of such instruction, the complete alphabet is learned. In all, 24 to 28 lessons are needed to cover the alphabet and the formation rules for scripting syllables of any of the Indian Languages. The eLearning Systems that were based on this approach have reached over 1,20,000 people [9] but it was difficult to create and maintain this technology for evolving needs[16]. The core idea of this technology was to convert NLM's existing instructional material into a flash based multimedia eLearning System to teach adult illiterates [16], but the challenge was do it for all Indian Languages and variants.

2.2 Accelerating Technology Development using Software Product Lines

How can we reduce the effort during the development of a large scale and variety of eLearning systems?

Developing and maintaining eLearning systems for 22 Indian Languages and their variants is an effort intensive task. On an average, each eLearning System consists of 24-28 folders corresponding to each lesson, with 15-20 *Flashfiles* in each folder on average, and each of the *Flashfile* contains around 30 elements. This eventually amounts to a total of around 20,000 visual elements and 2,500 elements, making it a massive task for the scale and variety of adult literacy eLearning Systems.

During this generation, we have looked at adult literacy not just as a single eLearning system but as a family of eLearning Systems and then applied SPL. This effort has resulted in reducing development effort from 5 to 6 person-years to 5 to 6 person-months[16]. We have also developed a set of tools called *ALP Factory* that take instructional material as input and create an eLearning System based on standardized product structure and production processes [16]. The generated product has to be manually customized based on the specific needs of the eLearning System.

Table II shows the high-level production process that creates the structure of eLearning System. It consists of four sub-processes, the input for each process is shown in the second column, and the output is shown in the fourth column. The output of one process acts as an input to the next process along with other inputs. Each of these processes is supported by tools. The first process transforms the instructional material into a standard form as defined by the standard nomenclature. The second process takes the standard design of all the lessons and produces templates for them. The required elements of the product are configured in the third process and the fourth process generates the physical product structure (folder structure) by assembling the required product configuration items. This automation has resulted in reducing the effort for creation of eLearning System from 5 to 6 person years to 5 to 6 person-months[16]. This applied to creation of eLearning Systems for 22

Languages; varied instructional material has led to massive cost savings during design of eLearning Systems for adult literacy in India.

Table-II
Steps in Automating the Development of eLearning Systems for Adult Literacy

Steps	Input	Process/Activity	Output
Process Step 1	Primer (Instructional Material) by NLM	Create Standard Product Structure (Consisting of 24 to 28 lessons)	An eLearning System (Adobe Flash files) consists of 24 to 28 folders with each folder having around 15 to 20 Flash files for content
Process Step 2	Templates	Design Standard Templates	Base eLearning System with common elements. There are on an average 20,000 visual elements and 2,500 audio elements in an eLearning System for adult literacy
Process Step 3	Individual Configuration Items	Product Configuration	A specific configuration file with details of instructional design, lessons and user interface configuration
Process Step 4	Product Configuration, Input Files, Folders	Factory Tools	Specific eLearning System that should be customized further to suit the needs of individual system requirements

2.3 A Patterns-Based Approach for Modeling Instructional Design and TEL Systems

How can we design reusable instructional designs and semi-automatically generate eLearning systems based on them?

While software product lines used in earlier generation have reduced development effort [16], we started questioning the role of technology in education. Can we enhance the quality of teaching and learning using technology in addition to automation? As a first step, we have initially proposed GAMBLE framework that models instructional material in the form of *facts, cases, rules, models* and *theories* (fcrmt) [17].

Teaching using this framework has helped adult learners to perform well at higher levels of Bloom's taxonomy [37]. Based on this framework and our expertise in patterns and software engineering, we took a holistic approach that integrates learning methodologies, educational technologies and software engineering towards design of TELL.

Table-III
Layers in Patterns Based Approach

Layer	Focus				
Layer 1	Instructional Design Methodologies				
Layer 2	Pattern Oriented Instructional Design <i>Teaching and Learning Platforms</i>				
Layer 3	IDont – An Ontology Based Modeling Framework				
Layer 4	Pattern Oriented Software Architecture <i>Software Tools & Platforms</i>				
Layer 5	ICT Apps	eLearning Systems	Intelligent Tutors	Games	...

The core idea of this work is to use patterns and a patterns-based approach to model reusable instructional designs and develop TELL systems based on them. In addition, we also see this approach as a fundamental way to address the challenge of huge scarcity of teachers in India by modeling experience of expert teachers and delivering it to novices. We summarize the key aspects of the approach (shown in *Table III*) as follows:

- (i) *Layer-1: Foundation of learning methodologies* - The first step in our approach is to rely on a pedagogical basis for our TELL efforts and in case of Adult Literacy, we use IPCL methodology [24] from NLM and integrate it with Merrill's first principles of instruction and Bloom's taxonomy.
- (ii) *Layer-2: Pattern-Oriented Instructional Design (POID)* - Based on inputs from Layer 1, we model Instructional Design using architectural pedagogy patterns, pedagogy patterns (e.g. *context, goal, process, content, evaluation, environment* and so on) and integrate them via patterns-based approach.
- (iii) *Layer-3: An Ontology Based Modeling Framework* – In this layer, we use ontologies as a way to systematically model different aspects of Instructional Design through patterns.
- (iv) *Layer-4: Pattern-Oriented Software Architecture* - is based on POID and ontologies, and provides a base for automating the development of various ICT apps, eLearning Systems and so on, which are in *Layer-5*.

2.4 IDont-An Ontology Based Educational Modeling Framework and Platform for Instructional Design

How can we systematically model different aspects of Instructional Design to facilitate design and customization of eLearning Systems?

We proposed IDont framework to model different aspects (*context, goals, process, content, roles, evaluation, environment, and so on*) of instructional design [18]. The core idea is to use a systematic approach to capture instructional design knowledge

and advocate separation of concerns principle by modeling different aspects of instructional design using smaller, modular interrelated ontologies. Modeling instructional design using ontologies is a way to align with learning methodologies and can facilitate the automation of technologies for adult literacy. We have designed two tools namely, *Easy Author* [14] and *GURU* [38] based on this framework.

2.5 A Software Product Line Approach for Design and Customization of eLearning Systems

How can we (semi-) automatically facilitate the creation and customization of eLearning Systems for a family of Instructional Designs?

We have applied software product lines for adult literacy case study and reduced the development effort from 5 to 6 person-years to 5 to 6 person-months [16]. However, this software product line is based on a single instructional design for varied eLearning Systems for 22 Indian Languages with varied content. The emerging need in the context of adult literacy is to create varied instructional designs, with each instructional design requiring varied eLearning Systems. In essence, this means that there will be different versions of instructional designs catering to different educational needs; each of those versions of instructional design will have authoring tools which in turn facilitate the automation of a family of eLearning Systems pertaining to that instructional design. This presents the need for a product line of product lines, which is elaborated in [13]. We have elsewhere illustrated the role of software product lines to facilitate reuse in TEL [21].

2.6 A Software Product Line Approach for Personalized Learning (future work)

How to provide personalized instruction to a diversified range of learners using varied instructional designs and delivered on different kinds of platforms such as computer, web, mobile and so on?

3. TELL as an Interdisciplinary Endeavor

In our experience for the last seven years, we have closely observed that TELL is an interdisciplinary endeavor and is becoming increasingly complex. We have briefly discussed the different perspectives of TELL in the context of adult literacy in [12]. We started our research from a software engineering perspective to reduce the mammoth effort during design of eLearning Systems [16] but soon realized that this effort is futile without a strong pedagogical basis [39]. We then modeled instructional design using a patterns-based approach by mining patterns from learning methodologies [19]. The next step in our journey was to apply fundamental principles

in software engineering like patterns and software product lines to systematically model instructional design and TELL systems. In addition, as our eLearning Systems and authoring tools are for non-technical teachers and illiterate people, we investigated our approach from a HCI perspective. In essence, our experience with design of technology for adult literacy made us to take a holistic approach from several disciplines.

4. Evaluation and Implementation

We broadly see two major lines of research in TELL- (i) Design of technologies to enhance learning (ii) Facilitating and accelerating the design of these technologies in sync with learning methodologies. Even though we have done a field study with 100 women learners in a rural village *Anajipuram, Nalgonda, Telangana, India* to understand the impact of our reasoning framework (fcrmt) to enhance learning[39], the focus of our research has always been on (ii) design of approaches that facilitate the acceleration of technologies that have a pedagogical basis. We evaluated the approaches outlined in *Section3* through (i) qualitative analysis from Instructional Design and Software Engineering perspectives (ii) empirical evaluation by design of technologies, tools and platforms (iii) application of the approaches and tools to adult literacy case study. A detailed evaluation of the tools is discussed in [1] and the software developed based on our approach is available at <http://rice.iiit.ac.in>.

5. Conclusions and Future Work

Adult Literacy in India is a *grand societal challenge* with 287 million people still unable to read or write in this digital era. This inspired us to design technologies for the last seven years in an attempt to address several *computing research challenges* in Educational Technologies and Software Engineering. To this end, we have - (i) reduced effort for development of eLearning Systems using SPL (ii) modeled instructional design knowledge using ontologies (iii) designed a *patterns-based approach* to model instructional design and TELL systems (iv) designed a SPL approach to model a family of instructional designs. We have also presented views of different stakeholders in adult literacy case study along with our experience of designing technologies and tools for adult literacy. The core idea of our research is to emphasize the need for a holistic perspective during the design of TELL. We also see endless possibilities of future research directions but two significant ones are: (i) use of software engineering approaches to address challenges in TEL and (ii) performing field studies to assess the impact of educational technologies to enhance learning.

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Contribution of Allied Disciplines towards Educational Research with Special Reference to Research Methods

Asha Ramagonda Patil

Education is a continuous process. It helps to develop the overall personality of an individual. It gives opportunity to develop one's skills and abilities. It is a complex phenomenon. Various fields of learning are involved in it. There is close linkage of education and development of a nation. Today, throughout the world education system is changing. Adoption of innovative teaching methods has become a need of time. Accordingly, curriculum and evaluation methods are changing. The cost of education and investment in it has increased, especially in twenty first century. This gives an opportunity to researchers to conduct studies on various aspects of education system.

Meaning of Research

Research means careful examination of an object or situation for the purpose of improvement. According to Kerlinger (1973:11), 'Scientific research is systematic, controlled, empirical and critical investigation of hypothetical propositions about the presumed relations among natural phenomena.' It comprises defining, and redefining of problems, formulating hypothesis, collecting, organising, and evaluating data ; making deductions and reaching at the conclusions and at last, carefully testing the conclusions to determine whether they fit in the formulated hypotheses or not.

John W. Best and James V. Khan defined research as 'the systematic and objective analysis and recording of controlled observations that may lead to the development of generalizations, principles, or theories, resulting in prediction and possibly ultimate control of events.' (Best, Khan, 2004:20)

Research is, thus, an original contribution to the existing stock of knowledge and/or theory making for its advancement or may create a new one.

Educational Research

Educational research helps to understand the educational process to improve its efficiency. It helps to study the problems and also suggests solutions to overcome them. For this, it takes help of other disciplines.

For example, take the problem of de-motivation of adult learners in attending literacy class. One has to first clarify the meaning of motivation and its related factors. Historian will enable us to understand how adult education classes were

conducted in ancient days. Discipline of sociology will explain this from another perspective. It will analyse this phenomenon from authority point of view. Will the adult learner ready to learn from an instructor/volunteer who is younger than adult learner? Does the instructor/volunteer teacher (VT) behaves with them authoritatively? Psychologists will have some different answers to such questions. They will take into account their life experiences, usefulness of education, etc. One needs to study this problem from various angles and find out the right solution for motivation of adult learners. In other words, each academic discipline has its own characteristic approach to research. They immensely contribute to the field of education.

Educational research helps to improve instructional techniques and management of educational institutions. Educational research is interdisciplinary in nature. Findings of researches do contribute in planning various educational strategies to bring changes. Educational research has impact on teachers and classrooms. For example innovative teaching method, need based changes in curriculum (which is constantly undergoing changes), reforms in examinations (Patil, 2017).

Educational researches play vital role in framing education policies and to bring fruitful changes in the field of education. It is the responsibility of people who are actively involved in education field to act on the findings of researches and further develop the education field.

According to Koul (2009:10) educational research means 'a systematic attempt to gain a better understanding of the educational process, generally with a view to improving its efficiency'. For this purpose, it uses various methods and techniques from various disciplines. Contribution of various disciplines in educational research is explained in following paragraphs.

Contribution of Discipline of Economics

Economics is the science of scarcity. It has a large influence on education field. Individuals and government invest in education and one needs to understand its returns. Economics helps to understand the impact of education on individual as well as the economy of a nation. This return may be in the form of money or non-monetary (for example education helps to increase sense of self-worth). How education helps in getting jobs which are more paid, getting more salary/wages? Economics gives answers to various questions related to education. For example, how early investments (pre-primary and primary education) in education system are more valuable than those made in later in adulthood, impact of smaller class size (no. of students) on students' achievements, impact of teachers' qualifications/qualities on achievements of students, impact of adult education on the life of adult neo-literates, etc.

The discipline of economics has theoretical and methodological contribution in

educational research. It tells about how best to allocate scarce resources in education. It helps us in understanding investment in education and its output. Economic impact of education on individuals and society can be studied well-with the help of cost-effect relation. Various key ideas from economics are used in both research and policy making. For instance, education and economic returns can be studied from labour market outcomes or employments in various sectors, cost-effectiveness of education policy, etc. Economics is used in quantitative methods of policy oriented researches. In majority of the countries, economics has significant influence on policy making.

In empirical researches, causal impact of education on earnings is an area, which helps in developing various strategies to be adopted in education system. Application of principles of economics helps to know the market trends, demands of various jobs especially in corporate sectors. This helps us in framing curriculums at various degree levels.

The contribution of discipline of economics in the area of quantitative education policy evaluation is significant. Demand and supply can be tested through quantitative research method. By applying robust theoretical models, one can find answers to whether investment in education really helps in development of a nation.

Economics can generate testable hypothesis in the field of education. They can be tested through quantitative research methods. It provides answers in quantifiable terms, which helps in policy framing. This also helps in allocating resources to various heads, with clear justifications. For instance, allocation of 0.5% of total budget of education for providing transport facilities to girl children studying in secondary schools in rural and tribal areas, as secondary schools are located at far distance.

Economics also helps us to understand non-cognitive skills and its relationship in achievements. For example, study of implication of marketization of education helps us to find out solutions for equity in education. Findings of these researches in these areas are of great importance in framing various policies. In short, the discipline of economics helps us to produce quantifiable evidences.

Quantitative research method- (causal impact) quantitative research method has been used in educational research since ages. Economics has further contributed in it. It provides various techniques that improve the quantitative rigour of analysis particularly. For example, what is the causal impact of education policy? Establishment of causal impact helps us to draw correct policy conclusions.

One can also study whether additional resources in school lead to better students' achievement. To establish causal relation between resources and students' achievement, quantitative research can be undertaken. Researches in the area of cost benefit analysis of education budget, rate of return analysis, cost effectiveness

analysis; economics of teachers' provisions are other areas, where one can contribute to policy decisions.

Causal relationship technique can also be used to evaluate a particular educational programme. For example, usefulness of Mid Day Meal (MDM) in enrolment and retention of students in school can be studied by using statistical and econometric methods. Other examples include usefulness of scholarships to students belonging to scheduled caste and scheduled tribe, contribution of freeships in enrolment of students belonging to other backward castes in higher education. The causal impact will help us to assess the true costs and benefits of these policies/interventions. This further helps in modifying the policies (policy decisions).

By applying various methods of research in economics, one can find out the achievement and welfare of children occurred due to various policies such as Education for All, Right to Education Act, etc. Cost-effectiveness of education and achievement will help in bringing reforms in education system. Government is investing crores of rupees in education, still inequality in education exists, and quality of education is deteriorating. Economics can help us to find out reasons for these questions. Economics can predict whether these investments will be useful in long term (Patil, 2017).

Contribution of Statistics

Statistics is a major part of educational research. Various statistical techniques such as mean, median, mode, standard deviation, t-test, ANOVA, etc. are used to interpret the data in quantitative method. Use of statistical techniques differs according to the objectives of the research. There are multiple interpretations of single event and situation. Statistics allows the researcher to select a specific method for data analysis. In other words, researcher can use both-qualitative and quantitative approaches.

Use of statistical techniques is in an integral part of research. It starts as early as the phase of sampling in research. Selection of sample, sample size, items to be collected and its quantitative analysis is done by applying statistical techniques. Sampling errors can be eliminated by applying statistical formulas (Pandya, 2010).

Statistics is widely used in educational surveys. For example, survey of achievement of students, administrative problems of schools, etc. By using various techniques of probable sampling or non-probable sampling, one can choose the final sample for educational research. By using standard deviation, one can estimate value of achievement of students in various subjects. One can also find a mean score from a frequency distribution table. One can study yearly changes in achievements, comparison of performance of government schools and private schools, influence of geographical conditions on students' performance, etc. These results

may help in policy framing regarding curriculum, providing facilities in different areas, use of technology in teaching, etc. Results of these studies can also help to decide strategies for organizing remedial classes, improvement in teaching methods to help the challenged students.

In quantitative research, statistics helps to describe and explore relationships in various variables or differences among groups. With the help of statistics, researcher can make quantitative predictions in terms of probability and ultimate control of events. It also helps to assess cause and effect relationships more credibly.

By applying various Statistical techniques, one can establish correlation between one or more quantifiable variables. The degree of relationship is expressed in terms of coefficient of correlation. If the relationships are substantial and consistent, they enable a researcher to make predictions about the variables. (Pandya, 2010: 89)

Statistics is also useful in comparative research studies. By applying various statistical techniques, the researcher can compare two or more groups. It helps to study relationships between two or more variables. Comparative study provides information on how two or more groups differ on some phenomenon (Dependent variable). For instance, a study of gender based academic achievement of students in rural area. By using comparative research method, one can study the academic achievements of girls' and boys' studying in rural schools. In this study, academic achievement is dependent variable, whereas gender is the independent variable. Researcher can compare academic achievements of students from one school and same class or may select two schools and students of same class (say Std. V or Std. VII, etc). In comparative research, the most common statistical techniques used are t-test and ANOVA. For comparing two groups, t-test is used and when more than two groups are to be compared, ANOVA technique is used. t-test can be used to compare the Mean Academic achievements of girls' and boys', IQ of girls and boys.

Causal-comparative research is mostly used to establish the relationship between cause and effect. It involves two or more groups and one independent variable. Topics such as effects of teachers' personality on students' achievements, affiliation of schools to various boards (State Board, CBSE, ICSE, etc), teaching methods, infrastructure of schools, provision of scholarships, etc can be studied by using causal-comparative method. In this research method also, one can use t-test for comparing two groups or ANOVA for comparing more than two groups on a single variable. According to Pandya (2010), technique of Analysis of Covariance (ANCOVA) may also be used in case some other variables likely to influence the dependent variable which needs to be controlled statistically. ANCOVA is used to adjust initial group variances on variables used in causal-comparative and experimental researches. ANCOVA adjusts scores on a dependent variable for initial differences on some other variables related to performance on the dependent variable. For example, a researcher

wants to study the effective teaching methods. Which method is more effective-lecture method, discussion method, case study method, demonstration method or experimental method? By applying Covariate analysis technique, one can compare and draw a conclusion.

Chi-square is another statistical test commonly used to compare observed data with data we would expect to obtain according to a specific hypothesis. It tests null hypothesis. Chi-square can also be used to compare group frequencies, or to see if an event occurs more frequently in one group than another (Patil, 2017).

Statistics helps to establish correlation between cause and effect in terms of degrees and not in dichotomies. It deals with problems in terms of many variables and reflects the variation of many factors at once. Correlations range over a scale from a perfect negative correlation to no correlation and to a perfect positive correlation (Aggarwal, 2002). Correlation can be used to measure the strength of an institution, predict teaching success, predict the number of students, who can score above 70%, etc. Statistics is also widely used in experimental research, cost analysis of education (economics).

Contribution of Discipline of Sociology

Socialization is an important aspect in human beings life. Personality gets constructed through various exposures and experiences of life. Thus, education plays a vital role in moulding a human being. In his/her growth and development, social and cultural factors play an important role. Sociological factors have great impact on the educational thought and practice (Koul, 2011:35). Research helps to explain social realities. For example, study of population explosion and its impact on educational system, study of job commitment of teachers in the context of social needs and social realities, etc. Following are some of the most commonly used methods of research:

Survey Method

Survey methods are some of the core methods for collecting and analyzing data in sociology. Survey methods have been used since the early days of sociology. They became a core method after World War II. Survey research has been used throughout the world and has become an important basis for comparative social analysis. (http://www.pra.ca/resources/pages/files/technotes/history_e.pdf retrieved on 9.2.2016)

Survey research is a descriptive research. It is mainly used for collecting primary data from entire population or a representative sample of individuals/respondents from the target population. According to Kerlinger (1973), survey research can be used to collect the vital facts of people such as their beliefs, opinions, attitudes,

motivations and behaviour. Survey research usually considers variables such as age, sex, religion, caste, income, socio-economic status, education, living expenses, occupation, and race. This method s primarily focuses on what people think and what they do. It is all about the way things are.

In education, survey method can be used to assess attitudes (parents, teachers, and students), opinions (policy makers, administrators, and parents), practices (teaching, administrative, students' study), procedures (admission, examination). In other words, to study various educational issues and problems, survey method can be used. Very often surveys are conducted to know the infrastructural facilities available in schools, teachers' absenteeism, students' absenteeism, achievement of students, and so on. In survey, the entire population can be one unit or one can draw a sample from the total population.

Various Types of Survey

Following are most popular surveys used in education sector (Pandya, 2010):

- Public opinion survey
- School surveys
- Community survey
- Developmental survey
- Follow-up studies
- Documentary analysis

Public opinion survey

These are usually sample surveys. They are conducted to know the public opinion about educational issues, especially controversial issues. For example, hike in admission fee, introduction of sex education in school, etc. Such surveys help in taking policy decisions about crucial issues.

School surveys

These surveys are conducted to examine the public attitude towards overall functioning of the educational institutions. For example, issues such as admission procedures, implementation of Right to Education Act, Mid Day Meal (MDM) programme, etc. can be studied. Findings of such surveys are useful for bringing overall changes in administration of the school.

Community survey

To assess the educational needs of a particular society and accordingly frame the objectives of the school, this method is useful. Need based education helps development of the students as well as the community.

Developmental survey

Various dimensions of students such as physical, emotional, intellectual, language can be studied in this survey.

Follow-up studies

These studies help to know the current status of alumni of a particular educational institution. Information is collected to know the status of students who successfully completed the degree from a particular institution. For example, information regarding their current employment status, usefulness of theoretical knowledge in their work, opinion about the employers, etc. can be collected. Such information helps in bringing necessary changes in curriculum (if it is at university level), teaching methodology, and co-curricular activities to be introduced at the institution level, expository visits, introduction of field experiences, etc.

Documentary analysis

In this type of survey, existing documents are studied. By using this method, one can study existing school practices for admission, examination, absenteeism of students, achievements of students, efforts for remedial classes, etc.

Based on research design, surveys can also be classified into following three categories namely:

- Exploratory survey
- Descriptive survey
- Explanatory survey

Exploratory survey

In this, no assumptions or models are postulated. This survey explores relationships and patterns through correlation, regression, stepwise regression and factor analysis. (Cohen, 2013:257) This is used to explore various areas, which are new and areas where very little research is done. This method helps to understand issues at deeper level. For example, why performance of a particular school is better than others?, why girl student dropout rate is more in secondary schools, even though they are provided cycles?, why absenteeism of girl students' is higher in rural areas?

Descriptive survey

It describes the present conditions. It generally aims at collecting information from a representative group of people from which inferences may be drawn about people as a whole. For example, opinion polls during elections, census surveys,

National Sample Survey, National Family Health Survey. Census data provides us factual information on educational status of the country (sex-wise and standard-wise enrolment, dropouts, etc). Descriptive survey mostly present numbers, percentages and averages. It provides information without explanation. Following are some of the topics for descriptive research:

- What co-curricular activities are conducted in the school for the overall development of students?
- What is the attitude of the parents towards tuition classes?
- What efforts the management of school takes for the development of teachers?

Explanatory survey

It requires a representative sample, usually a large one. Information collected is analysed by using statistical techniques. It deals with causes of a specific phenomenon. It presents evidence of relationships. For example, is participatory teaching method much effective than lecture method? Is there any relationship between teacher's friendly behaviour and students' achievement? Does family's good economic condition helps in achievement in school? Is intelligence related with reading ability, can attainment in the early years of primary school linked to date of birth? Relationships are measured in their real setting. For example, tests are given to students in their classrooms, people are observed in the process of their everyday lives.

Thus, by using various types of survey research methods, one can overcome various problems in education field.

Ethnography

This research method is used in sociology to study socio-cultural factors. It is descriptive in nature. In this method, community is the major area of study. It emphasises on study of culture. It has diverse approaches. The most common is participant observation. There are no restrictions on limit of what will be observed and interviewed.

According to LeCompte and Preissle (1993), ethnography research is a process involving methods of enquiry, an outcome and a resultant record of the enquiry. This research intends to create as vivid a reconstruction as possible of the culture or groups being studied. The researcher gathers empirical data in its natural setting. Ethnographic approaches are concerned more with description rather than prediction, induction rather than deduction, generation rather than verification of theory, construction rather than enumeration and subjectivities rather than objective knowledge. (Cohen, 2013: 221)

The subjects studied under this may include ethnic community, formal organization, perceptions of a particular group about a particular system, etc. It is an exploratory study. Data are gathered from various sources, mostly through observation and informal conversations. Researcher has to build trust and establish rapport with the subject in initial phase itself. Questions are unstructured and mostly open-ended. Researcher has to ask clear questions by using appropriate language, so that it is understood correctly by the respondent. Probing questions help to get detail answers. Researcher needs to have good observation skills. Observation skill also helps while asking sensitive questions. Unlike other research methods, the researcher have to collect data and do analysis on continues basis.

By using ethnography method, one can study the impact of culture on achievement of students. For example, a particular tribal community in the district of Udaipur, Rajasthan state of India, celebrates *Holi* festival for a month. During this period, they don't work. They just enjoy life by eating, drinking and attending festivals (*Jatras*). One can conduct an ethnographical research to understand the achievements of students in this area. Other areas could be education and social mobility, education and equality of opportunity, etc.

Using this method one can study culture of a particular group, patterns of social interaction in a particular group/community, in relation to education of their children. For example, portrayal of a social group-*Banjara* community (Nomadic tribe), *devdasi* and their life, etc.

Narrative Research

It is emerged as a discipline in the field of knowledge management. It is an approach to understand behaviour of students, teachers, administrators or parents. Narrative research deals with diverse events, happenings and actions taken in person's life. It is a powerful tool in sharing of knowledge. It is a form of qualitative research. It has been used as a tool for analysis in the field of cognitive science.

Narrative research studies illustrates life history of a person in a sequential manner. It includes conflicts/struggles, challenges, agitations, predicament, happy movements/success, tragic and romantic moments, comic and ironic moments as well.

In education, narrative research can be done on the following topics:

- A narrative study of experiences of woman principal in boys' school,
- Study patterns of student toppers in board examination/university examinations,
- experience as a teacher working in the school of mentally challenged children,

- Challenges of a teacher belonging to ethnic group/scavenger family and working in a metropolis city.

Narrative studies may become inspirations to others. From such studies, one can understand strategies used by people to overcome hurdles and to achieve success.

Contribution of Discipline of Psychology

Psychology is the science of behaviour, which can be observed and measured in an objective way. The knowledge of child psychology (pedagogy) helps teacher to plan classroom activities which ultimately results in overall development of children.

Educational Psychology and its Contribution

Educational psychology is an applied discipline. It helps the teacher to understand the students and enhance their skills. There are many areas in education where general and objective information about an individual is crucial. Psychology enables the teacher to know these factors. Teacher has to deal with complexity of children's behaviour in the classrooms.

The educational psychology helps in understanding developmental characteristics of various stages of life such as infancy, childhood and adolescence. It also helps to understand the nature of class room learning, needs and problems of students, individual differences in classroom. Due to heterogeneous groups of students, knowledge of these factors helps teacher to decide appropriate teaching strategies.

Psychology has contributed in content area as well. It has contributed towards pedagogy, behavioural management, guidance and counselling, classroom management, personality, adjustment and defence mechanism and theories of learning.

Research Methods of Educational Psychology used in Educational Research

Following methods are widely used in the area of education:

- Introspection
- Observation
- Experimental method
- Action research
- Clinical method
- Case study
- Survey or differential methods

Introspection

This is the oldest method, first used in philosophy. Introspection means self observation to understand one's own mental health and/or the state of mind. This method is useful while working with students who are aggressive, introvert, and juvenile as it gives information about one's own self which is difficult to understand by other methods. This method can be clubbed with other methods such as experimental and observation method.

Observation

One can do observation in various manners such as direct or indirect, scheduled or unscheduled, natural or artificial, participatory and non-participatory. For instance, teacher can observe students' behaviour in the play ground, social gatherings, and during group activities, without making them conscious. (Observation in natural setting) There are two basic types of observation. Teacher can also give some activity and participate with students and observe them closely.

Experimental Method

It helps to understand, control and predict behaviour. It is the most precise, planned systematic observation. It describes 'what will be' when certain variables are manipulated. To understand the cause and effect relationship between variables, this method is used. Experiments may be conducted in a laboratory or in the classroom or anywhere else in the community. It is a well-planned activity which involves proper research design. Experimentation involves comparison between behaviour of a control group and that of an experimental group.

An experiment involves two or more variables. For example; study of effect of a sex education programme. In this particular study, before the experimental method administered, pre-test should be conducted for both the groups. Then the experimental group is exposed to attend this programme on sex education and the controlled group is not exposed to this programme. After the experiment, both the groups are administered post-test. One can also see the behavioural changes in experimental group.

This method is widely used in education, especially to study the effects of various learning models on academic achievements. Explosion of knowledge has happened due to use of technology in twenty first century. It has also added various educational problems. Hence, this method is more significant in today's world (Aggarwal, 2002).

The experimental method serves as a basis for the formulation, execution and modifications in educational programmes and policies. It also ascertains the effect of any change in the normal educational practices and programmes.

Action research

Action research studies problems at the local level. It usually focuses on the development, implementation and testing of a new product, programme, plan or procedure in a school building (Picciano, 2004, Pandya 2010). This method enables the administrators and the teachers to study their own problems in their respective schools and classrooms.

It deals with realistic problems and issues rising at the educational institutes. It focuses on problem solving and can help to bring changes in education system. For instance, a particular class is consistently performing low. The teacher/s, Principal and students together or separately can find the reasons and solutions to overcome this problem and improve the performance of students. If needed, they can seek outsider's help (e.g. counsellor). At the end of the action research, one can find answers to questions such as what worked and what didn't, what we have learnt and how could we do it differently next time.

This method involves active participation of all those who are associated with the problem/issue. In this method, continuous effort/s are required to find out the root causes of the problem, reasons behind them, establishing relations, taking action and again reflections on it to know whether it works or not. In other words, it involves review of actions undertaken and planning to future actions.

Following are some of the areas for action research:

- How can I improve the students' classroom participation?
- How can I reduce students' fear of examination?
- How to improve communication skills of students?
- How do I improve my teaching?
- A study of effectiveness of ICT as an instructional strategy
- A study of effectiveness of ICT in administration of a school/college
- A study of staff development and promotional opportunities available in a particular school/college.

Findings of action research help to improve the quality of education in schools/colleges.

Clinical method

This method is basically used to solve behavioural problems of the student/s (individual and/or group). It focuses to detect the specific behavioural problem and therapeutic measures to rehabilitate them. For example, a student with a habit of stealing things from the classmates' bags, student with a habit of sleeping in the classroom, student having habit of stammering when asked questions in the class (otherwise he speaks normally), etc.

Case Study

Case study is in-depth analysis of an individual, small group of people, or phenomenon. It describes and interprets current events, circumstances or situations. It helps us to understand a complex issue or a person's behaviour. It gives us detailed contextual analysis of certain important events and their relationships. The limited size of sample avoids many of the complications in logistics or in analysis which are found with the other methods. It is intensive in nature.

Case study is the most widely used descriptive research in education. It is qualitative in nature. It is based on the assumption that things may not be as they look and hence, requires in-depth study and analysis to understand the 'case'. One cannot generalize things without knowing the details. For example, a girl student sleeps in the class in spite of warning so many times. In this case, reasons may be varied as she has to work at home, take care of her siblings, working after school hours, cannot understand what teacher teaches, not interested in learning, boring teaching method, malnourishment, and eye sight problem and so on. By conducting a case study of this particular student, one can find out the reason/s and take appropriate action to overcome this problem.

Case study helps teachers to understand students with academic difficulties. To eliminate subjectivity, one can use psychological tests as well. Case history clarifies and helps to resolve controversial issues/points. It uncovers illogical thinking and misconceptions, which in turn lead to resolve complaints, if any. The 'case' may get reassurance that disclosing the past may help to resolve problems and will benefit personally.

Though case study is a qualitative method, sometimes it is also used as quantitative. For example studies related to cost effectiveness, institutional effectiveness and so on. In policy related issues, the whole country or a state can become a case. One can do a case study of effectiveness of 'Education for All' or "Saakshar Bharat" scheme. One can do case study of a single school as well. Usually, case studies focus on single unit or smaller unit; hence its findings cannot be generalized.

A variety of techniques are employed for collection of data including personal interviews and observations. Tools such as psychometric tests, questionnaires, documents, artefacts, diaries and archival records are also used. These multiple tools and techniques of data collection add texture, depth and multiple insights to an analysis. It also can enhance the credibility of the results.

In the field of education one can do case studies of students' lack of interest in study, Aggressive behaviour of a student, day dreaming, absenteeism, emotional problem, social problems, etc.

Causal Comparative Method

This method establishes causal relationships between events and circumstances. It compares the circumstances associated with observed effects. For example, in a study of educational and social background of delinquent children with those of normal children, researcher can observe which factors are common to the delinquent children and non-delinquent children, any factors common to only one group, which might serve as a possible explanation of causes of delinquency. The causal comparative method begins with observed facts, actual happenings, investigating reasons. It finds out causes of certain occurrences and non-occurrences. This is a method which answers many educational problems.

Following are some topics for causal comparative method:

- Effectiveness of health education and character development
- High cost of education in private schools

Contribution of Discipline of History Historical Research

Historical research is the systematic collection and evaluation of data to describe, explain and understand actions or events that have occurred in the past. Researcher cannot manipulate or control variables, as events have already happened. It is an attempt to reconstruct what happened during a certain period of time, as completely and as accurately as possible. It is a type of analytical research.

The main purpose of historical researches is to make people aware of what has happened in the past in order to learn from past successes or failures, apply certain strategies to current problems, and make predictions. Past conditions influence present. Hence, historical researches help us to understand present practices and policies fully. It helps to explore changes and transformations taken place in a society.

Current educational problems, practices can be well understood in their historical perspectives. Historical studies can help to address various issues of current education system, its problems, practices and attitudes. For example curriculum reform, relationship between economy and educational innovations, educational innovations, education for minority girls', generic courses versus specialized courses, relevance of current education in the market, education in mother tongue versus English as a medium, relevance of current education in job market, traditional teaching methods versus modern methods and so on. Findings of the historical researches may play an important role in shaping the educational policies.

Historical research provides information concerning effects of past educational practices. An attempt is made to examine and establish facts in order to arrive at conclusions concerning past events or to predict future events. For example, impact

of 'operation blackboard' or "District Primary Education Programme (DPEP) on enrolment of students. Such studies suggest programmes for future action. It also contributes to understand significance of education, inter-relationship between curriculum and job opportunities.

Historical researches show patterns that occurred in the past and over time. This helps us to understand the existing situations and educational practices. For example, study of various educational schemes implemented by the Central government and State government to increase the enrolment of students in schools. Such studies show us what worked and what did not. As we know past conditions influence present. For example, inadequate infrastructure of a school results in drop out of students. This reflects in illiteracy rate. Effects of certain past educational practices (for example, corporal punishments to students in schools increase dropout rate of students) can be studied by using this method. The historical research can provide answers to questions such as why and how. It also helps to understand the significance of education, relationship between curriculum, teaching methods and achievement of students.

Importance of Historical Research in Education

It enables the present educators and administrators to avoid mistakes of the past. It becomes a foundation for any educational reform. Current educational problems can be viewed in the context of their origin and growth, without any bias. For example 'low literacy rate amongst women' can be studied in past context. Such studies provide educational ideals and standards of past time. One can study the changing role of social institutions and understand the dynamics of education, learn how educational prejudices and misconceptions have hampered the educational system.

Types of historical research include bibliographic research, legal research, studying the history of ideas and studying the history of institution and organization. Bibliographic research provides data on important facts about life, character and achievements of stalwart educators (for example *Tagore*, *Aristotle*, *J.P. Naik* etc). One can conduct a legal research in the areas of legal status of teachers, administration of private aided schools, school finance, etc.

Historical research can be conducted on following topics:

- Growth of education system in India after independence
- Contribution of great educators'
- Influence of *Bharat Ratna Maharshi Karve's* movement of women's education in Maharashtra
- Constitutional provisions for education/girls' education
- Changing contents of school text books

- Reservation policy and its impact on enrolment of students belonging to reserved castes
- Teacher qualifications, recruitment policies and performance of schools
- Implementation of Education for All policy and its educational reforms.

In historical research, data can be collected from various secondary sources such as libraries, archives, historical documents, diaries, memoirs, newspapers, photographs, autobiographies, periodicals, bulletins, census reports, books, magazines, journals, films, etc.

Contribution of Discipline of Philosophy

Philosophy is the oldest original intellectual discipline. It is the mother of all arts and sciences. According to Ross (1937), 'philosophy and education are like the two sides of a coin; the one is implied by the other: the former is the contemplative side of life, while the latter is the active side'.

The philosophy deals with nature of the universe in which we live. It tries to find the root causes of problems. There is a very close relation between philosophy and education. Philosophy is a way of life, and education prepares person to live the life. Philosophy deals with the ends and education is the means to achieve those ends. Philosophy gives ideals, values and principles whereas education works out these. In short, we can say education is the dynamic side of philosophy. Thus, philosophy has great influence on determining the aims, curriculum, methods, text books, and discipline in education.

According to L. K. Oad (1983), philosophy can help to answer following question (Pathak, 2013):

- Should education be universalized? Why?
- Who is eligible/fit to impart education?
- What kinds of relations should exist between teacher and student?
- What are the characteristics of a good teacher? (moral, abilities, skills, etc)
- What should be the content of text books to develop the overall personality of students?
- What methods should be used for inculcating values in students?

Contribution of Discipline of Political Science

Research and politics are inextricably bound together. For example, evaluative researches done in educational research where researchers evaluate the effectiveness of given policies and projects. Usually they are commissioned research, which are funded by policy makers. Politicization of research has resulted in funding bodies awarding research grants for categorical research that specify timescales and the

terms of reference (Cohen, 2013:48, 51). For example, evaluation of various schemes/ programmes of National Literacy Mission comes under this.

Educational research has political dimension. At macro level, manifestation of funding takes place. When researches are sponsored, beyond commissioned, then the issue of dissemination of findings come. Who will receive or have access to the findings and how the findings will be used and reported. This, in turn raises the fundamental issue of who owns and controls data, and who controls the release of research findings. (Cohen, 2013:52). Many a times, unfavourable reports are withheld for time being, suppressed or selectively released. Thus, research and politics are intertwined. The impact of research on policy making depends on its degree of consonance with the political agendas of governments (Thomas, 1991, Cohan, 2013:53) and policy makers anxious for their own political survival (Cook, 1991, Cohen, 2013) and the promotion of their social programmes. Research is used if it is politically acceptable.

Political science helps to understand political ideologies of an educational institute, its influence on the curriculum/content, and overall functioning of an institution. Political science helps in knowing distribution of power in the decision- making process, the overall organization and governance of school systems, outcomes and effects of education policy decisions.

How much does national policy make a difference in classrooms? How much do national politics drive education policy? How education policy helps to bring fairness and equity in education can be studied as education has always been a polarized issue and minorities have always had to fight for access to education. How do teachers' union promote/hamper the development of education system, how the pressure of political parties and religious leaders together change policy decisions, are some of the topics which can be studied under educational research.

Policy makers, funders and users of education have interest in knowing changes taking place in the area of education. Education plays a vital role in creation of learning society. Researchers can study interrelationship between economics, political and cultural dimensions of globalization. The relationship between international, national and local politics and policies and their impact on educational systems and practices can be another area of research.

Education has become a field of major transformations and political experiences (Enders, 2010). Foreign universities are entering in higher education. A study on impact of foreign policies on education can answer various issues about quality, equity and achievement issues. Such studies can answer to questions such as do education reforms matter? Do they lead to new forms of social exclusion? And if so, under what circumstances one can avoid these effects? Such studies will be of great relevance for political practices and policy making.

Conclusion

Education is a continuous process. It requires continuous refinement as per the needs of the society. Education is a multidisciplinary endeavour. It cannot be imparted in isolation; hence it cannot be studied in isolation. We have to take into consideration the related disciplines of psychology, sociology, economics, philosophy, and statistics in educational research specially while evaluating its importance. Change is the law of nature, nothing remains static. Research is no exception. We have to update ourselves continuously to deal with the complexity of educational research. As development takes place, new problems arise. To solve them we need to have new devices of research and updated information.

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Recognition of Prior Learning, Skill Development and Migration: The Construction Sector in India

Chetan B. Singai

Recognition of Prior Learning (RPL) is the process used to identify, document, assess, and recognize skills and knowledge, especially for the adults. Currently, India's population is 1.31 billion, which is fast expanding at a rate of 17 percent and integrating rapidly into the global economy (FICCI, 2015). India is among the 'young' countries in the world, with the proportion of the work force in the age group of 15-59 years, increasing at a rapid pace. As a result of such a huge population with recurring unemployment and lack of employability, the demographic-dividend has become a liability than an asset to the nation. The labour market is volatile and demands new and complex skills to survive and grow, respectively. To this end, the following section of the paper examines the three prominent issues firstly, the status and need for RPL; secondly an overview of skill development in the country and finally, examine the issue of rural-urban migration with the construction sector as the case-in-point.

One of the ways to deal with unemployment and non-employability problem in lieu of increase in (rural to urban) migration is to pursue Recognition of Prior Learning (RPL) in the country. Recognition of Prior Learning is a formal process of recognizing previous experiential learning through a systematic assessment and certification process to award a formal qualification. These certificates are further used as currency to make upward mobility in enhancing individual's employment and socio-economic status, given the competitive and specialised needs of the labour market. Among the various sectors operating in the economy, the construction sector is fast-becoming one of the dominant agents of economic growth. Construction sector is the 3rd largest employer in India after, agriculture and manufacturing and holds 8.1 percent share in Gross Domestic Product (GDP), more than 4.22 crore workers are employed, with increasing demand for construction workers across the country, especially in the urban areas (Economic Survey, 2016). RPL in the construction sector is an important dimension to be introduced. Recognition of Prior Learning initiative in developing competencies among the traditional or semi-skilled or unskilled workforce to meet the modern day requirements of the complex-skill-based construction work. RPL would also help in opening doors for up-skilling and multi-skilling of workforce and contribute towards improving sectoral productivity and efficiency.

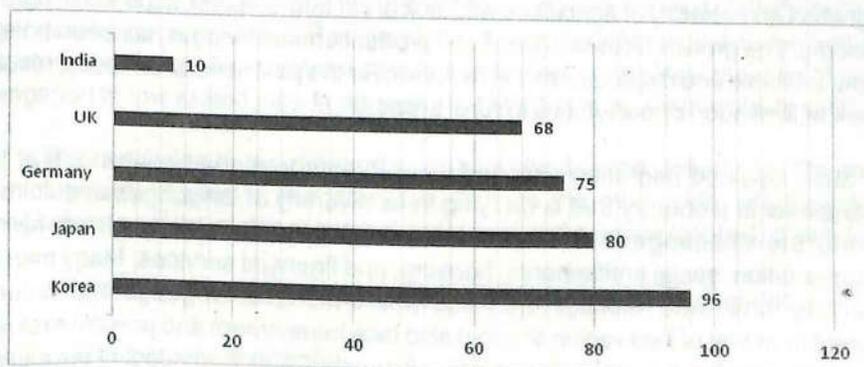
Adult domestic workers who work in the middle-class homes in Delhi, drivers working for taxi companies in Gurgaon, the construction worker in Karnataka and

the agricultural labourer in Punjab probably have one thing in common – they are migrants. Nearly one-third of India's population is migrant population (Ratha, Yi & Yousefi, 2015, Pp. 260).

Half of this population has migrated from rural areas to cities in search of work (see table 1 below, for details). Lack of alternate livelihoods and skill development in source areas, locations from where migration originates, are the primary causes of migration from rural areas. Workers migrate seasonally, temporarily, or for a longer period, either within a state or across states. The impact of migration is twofold: (1) labour migration within India is crucial for economic growth and contributes to improving the socio-economic condition of people and (2) migration, often results in overcrowding especially in the urban-areas accompanied by unemployment and/or non-employability and poverty.

Irrespective of migrant or non-migrant population, presently only 10percent of the total workforce in India have undergone skills training. As a result of this, unskilled or non-employable population in the country is increasing, resulting in a situation of crisis amidst robust growth. However, one must be wary of India's 'skills deficit' (see figure 1 below) which is a major hindrance to its economic development and growth, in comparison to other developed and developing economies.

Figure 1: Percentage of workforce receiving skill training



Source: Chenoy, D, 2012, Pp. 199

Hence, the current 'demographic dividend' is a vantage point for India, unless it engages actively in harnessing the skills of the workforce and those outside this paradigm. The main challenge in this regard is to face an ever-increasing migration of workforce from traditional occupations like agriculture to manufacturing and services, demanding higher skill sets. The challenges for India gets magnified, as it needs to reach out to the million plus workforce ready population, while facing an ever-increasing migration of labor from rural-agriculture centric to urban manufacturing and services

centric work profile. Can an intervention through RPL programmes/modules could overcome this challenge?

In line with this, the chapter provides an overview of the migration and skill deficit scenario in India, followed by discussion on suggesting a way forward by discussing the case of recognition of prior learning of workers in construction sector, a programme initiated by the Director General for Employment and Training (DGE&T), Ministry of Labour and Employment (MoL&E), Government of India (GOI) (DGE&T). The main question addressed with reference to the case-in-point and the way forward is: Does providing opportunity for skill development based on Recognition of Prior Learning for the migrant population to get employment or become employable, a 'winning' proposition to address the complex conundrum of migration, skill deficit, urbanisation, unemployment and poverty conundrum? In the following section, a brief on this conundrum is discussed.

Migration, Urbanization, Unemployment and Skill Development: A Conundrum?

The stride of migration, urbanization, unemployment and skill development are not mutually exclusive, they are direct manifestations of the process of economic development, particularly in the contemporary context of (economic) globalization (Benjamin, Bhuvanewari & Aundhe, 2006). A large part of migration, unemployment and urbanization in the less developed countries have historically been linked to stagnation and volatility of agriculture and lack of sectoral diversification within agrarian economy. The growth rates in agricultural production and income has been noted to be low, unstable and disparate across regions over the past several decades, resulting in lack of livelihood opportunities in rural areas.

Such lopsided migration exposes the migrants to myriad challenges at their destinations in a country that is dizzying in its diversity of languages and cultures. Among the challenges: restricted access to basic needs such as identity documentation, social entitlements, housing, and financial services. Many migrants especially those who relocate to a place where the local language and culture is different from that of their region of origin also face harassment and political exclusion. Thus, nurturing the debate on 'inclusion', 'citizenship' and 'livelihood' of the citizenry of the country.

India has a long history of migration which has shaped its social history, culture and pattern of development. In pre-colonial times, the reasons for the circulation of populations were mainly for religious and trade purposes (McNeill, 1984:9). Migration, on account of military movements, also played an important role. People also travelled in search of pastures with their cattle. Nomadic migration, even for short distances, was an important feature outside the Genetic valley. As a matter of fact, this practice is still found in some parts of Rajasthan and Madhya Pradesh located in central India and is one of the earliest forms of circulation in the history of human migration.

Further, migration is spurred by search of employment and result of marriage as well.

Interestingly, Kingsley Davis (1951) in his pioneer work on India argued that Indians were less mobile. This conclusion was based on inter-provincial/state migration which stood at 3.6 percent in India in 1931 compared to 23 percent in the United States in 1940. Davis attributed this fact to the prevalence of the caste system, joint families, traditional values, the diversity of language and culture, the lack of education and the predominance of agriculture and semi-feudal land relations in India. However, the fact remains that Indian migration is predominantly a 'within state' phenomenon. According to the 2011 Census – the latest data available on migration as the 2011 Census– shows inter-state migration is only about 4 percent (41 million) of India's population compared to 26 percent within state migration (268 million) (Bhagat, 2010). Thus, considering the entire mobility including within and between state migrations, the mobility of Indian population stands close to 30 percent – much higher than what Davis believed. It is also startling to see that about 30 percent of India's population is internally mobile, a figure which has remained remarkably stable over the last several decades and is also consistent with NSS data. The 1971 Census shows 29 percent internal mobility compared to 30 percent in 2001 and the latest available NSS data for the year 2007–08 shows about 29 percent of India's population are internally mobile.

The rural poverty situation in India is highly complex and greatly differentiated by geography, demography and social class. It is multi-dimensional and influenced by systematic as well as structural changes in the economy. Vast majority of poor are engaged in low skilled jobs in agriculture, hence lacking employability skills.

The result lies in the different actors involved in the definitions. On one side employability relates to the individual, and on the other side, employment is a consequence of the match of internal (individual) and external (context) characteristics.

Knight and Yorke (2003) identified three main constructs of employability:

- as employment outcome;
- as a learning process;
- as a set of learning outcomes.

Moreover, they distinguished between:

- Employability as an individual feature, as the possession of the necessary characteristics to obtain and maintain the desired employment
- Employment as the transformation of the potential employability in the desired employment that demonstrates the acquisition of the specific skills desired by the labour market.

The conceptual distinction discussed here is further analysed in the context of need for more employability over mere employment, while examining the case of RPL in construction sector in India.

Currently, it is appropriate context, for the country to address the challenge of skill deficit along with emphasis on employability rather than, mere employment. One of the major policy challenges India faces today is how to provide skilling and up-skilling opportunities to low skilled and unorganized rural migrant workers. Adequate and appropriate skill development initiative or programmes for youth in rural India, could check migration from rural to urban and enable sustained growth in the rural areas of the country. Table 1, below illustrates the migration across streams in India – urban to urban, rural to rural, urban to rural and rural to urban. Though the rural to rural migration is at the peak, the migration of population from rural to urban, unpacks issues related to employment vs. employability, skilled vs. non-skilled and so on.

Table 1: Representing Migration by Gender in India (2001-2008)

Streams	Male			Female		
	2001 Census	1999-2009 NSSO	2007-2008 NSSO	2001 Census	1999-2009 NSSO	2007-2008 NSSO
Rural to Rural	36.3	32.3	27.1	72.4	70.3	70
Rural to Urban	34.2	34.3	39	13.5	14.4	14.8
Urban to Rural	6.2	10.7	8.9	4.1	5.2	4.9
Urban to Urban	23	22.6	24.8	9.9	10.1	10.3

Source: Census of India 2001; NSSO, 2010 in <http://www.solutionexchange-un-gen-gym.net/wp-content/uploads/2016/01/WMR-2015-Background-Paper-RBhagat.pdf> accessed on 18 May 2016 1830 hrs.

To overcome the 'skill deficit' conundrum due to increase in migration, harnessing the 'dividend' with better skills sets and employability could contribute to the overall economic development a better growth prospect. Responding to this, at the level of policy the Indian government embarked upon a series of innovative strategies regarding skill development and knowledge augmentation. One of the first interventions in this regard was the National Policy on Skill Development (NPSD) in 2009. The vision of the NPSD is to:

National Skill Development Initiative will empower all individuals through improved skills, knowledge, nationally and internationally recognized qualifications to gain access to decent employment and ensure India's competitiveness in the global market (Planning Commission, National Policy on Skill Development, 2009:9).

Main target group for skill development in India is the first migrants especially

the migrants coming from rural to urban areas. Literature galore expressing concerns of these dwellers, highlighting, their inability to self-sustain due to illiteracy and deficiency in skills required to make a living in urban India (Desai, 1994). Table 1, above illustrates the pattern of internal migration during last decade by gender. Apart from the pattern indicated here, it is interesting to make two critical observations – (1) the percentage of Rural to Urban migration is higher, in comparison to other streams and (2) migration among women is prominent in the rural to rural streams, unlike the male population.

These observations corroborate couple of arguments. Firstly, considering the rural to urban population as the major stream of migration given the massive expansion in urban India raises that concerns about space and sustainability. The challenges exposed by such an explosion are many – among them the critical one is the basic survival of the migrants. Survival is conditioned by access to basic amenities, and these amenities are available as a result engaging in work and earn.

The existing literature on urbanization raises concern about managing urban growth, which has increased in both scope and complexity and has become one of the most important challenges of the 21st century (Cohen, 2004). One of the most critical questions in the context is - What is the relative contribution of rural-urban migration, natural increase, and reclassification to urban growth? (Ibid). In the case of India, fertility decline in urban areas has been faster than rural areas. In this situation, rural to urban migration and reclassification of settlements may emerge as a dominant force of urbanization. This requires an assessment of natural increase along with the components of migration and reclassification. Such trajectory of settlements leads to overcrowding, unemployment and homelessness and slums. Can employment overcome these problems?

To substantiate this, an initial step will be to outline the meaning of skill and its development. Skills have become conceptualized as “things” that can be acquired and measured and that possess an inherent capacity to bring about desired outcomes, outcomes that can be measured in tangible terms like money and in-tangible aspects like social status and so on. As the neo-liberal dream has increasingly receded the State, saturating the new workplace, workers have come to be personally responsible for skills acquisition, to the point of self-commodification.

The hierarchical view of skilled behaviour as fundamental to many modern theories of skill acquisition and accordingly, skills can be divided into hard skills, soft skills, and professional skills. Many concepts referring to types of skills/skill-sets are now in vogue (Stasz, 2001:386) distinguishes between academic skills (primarily learnt in schools); generic skills (such as problem solving, communications, or working in teams), technical skills, which are specific skills needed in an occupation and may need reference to academic skills; and work-related attitudes or 'soft skills', which include motivation, volition and dispositions. Beechey (1982) suggests that three

different elements can be distinguished when we discuss skills: (1) objectively defined competencies; (2) control over conception and execution; (3) socially defined occupational status, which may be independent of objectively defined competencies. There may also arise the necessity of distinguishing between skill in individuals and the skill required for jobs, as well as between these and labelling specific jobs as skilled.

In sum, the linkages between migration, urbanisation, employment and skill development exists, hence, need for recognising and harnessing these skills are the need of the hour. To demonstrate this, below, the case of RPL of Construction Worker in India, an initiative of DGE&T, MoLE is described and analysed.

Case Study: Construction Sector in India

With an estimated USD\$ 1 trillion planned investments, in the construction sub-sector holds immense potential for employment generation (Economic Survey, 2016). The profile of those employed in the construction industry is skewed. The industry is predominantly stationed with male workers (about 85 percent) and are migrated from rural areas (about 74.6 percent), largely belonging to the age group of 15-59 years (Economic Survey, 2016). Among these, approximately 28.4 percent of male workers have received Primary education and 13.6 percent workers from the rural areas possess formal and/or non-formal training (Economic Survey, 2016).

The construction sector in India, is no doubt an area where majority of the migrants and the urban population, are dependent on their livelihood and growth, respectively. However, the challenges are in sustaining these dependencies – firstly, demand for skilled labourers to address the ever-increasing demand for workers for the construction industry one hand, and availability of labourers among the un-skilled or semi-skilled rural migrants on the other. Secondly, providing skill-based training to ensure efficiency and better emoluments for rural migrants to sustain their livelihoods in urban centres.

In the following section analysis of the latter and its relationship with migration and skill development, are discussed with reference to case of Director General of Employment and Training (DGE&T) ongoing interventions for Recognition of Prior Learning of Construction Workers. The case in point provides an overview of a policy intervention in unpacking the complex link between rural migration, skills and employment, arguably, a robust link to alleviate poverty and addressing the problem of rural migrants in urban India, in particular.

The basic purpose of the DGE&T intervention is to react to the growing significance of construction industry and the challenge in addressing the issue of exodus of rural population to urban areas, particularly when majority of the rural migrant population lacks requisite skills to sustain themselves in urban areas. According to DGE&T, majority of these labourers lack skills, but have some experience working in the

construction sector. Such experiences are in some cases reflects in their engagement with Rural Employment Guarantee Schemes of the government and/or are acquired by self-practice or observations. With their respective strengths and weakness, the DGE&T in 2015 initiated the process of certification for recognition, provision and upgradation of their prior or existing skills. The competency led Recognition of Prior Skills certification framework proposed by the Directorate, in alignment with the National Skills Qualification Framework (NSQF).

Key features of the DGE&T RPL intervention in Construction Sector

The skill recognition and upgradation initiative is envisaged primarily at the worksite led recognition and training intervention considering the accessibility element vital for the profile of the construction.

Training partners (both from public and private) anchor's the tie-p's with various construction industry partners and establish Training Centres at their work site to facilitate assessment and training of the current workforce.

The DGE&T has identified various trades for skill development or training for the workers on the construction site. Following the list of trades provided for the workers – Bar bending, Masonary, Shuttering carpentry, Plumbing, Painting and Scaffolding. Construction workers registered with Labour Welfare Boards or their eligible family members, across India.

The models, suggest that the beneficiaries would be shortlisted during preliminary interviews before putting them on assessment. During preliminary interviews, they would be asked few questions relating to their trades acquired (if any) from their experience. Based on the outcome, the beneficiaries could be sent for assessment or further training to upgrade their existing skills. Following assessment, worker's eligibility levels (1 or 2) are determined. Further, the 'Skill Gap Training Process', based on the level suggested, is provided by designing a course content following which training and assessment of the training is done, with final assessment. An assessment indicates, providing certification to the candidates based on assessment scores (detailing the training for the respective trades). Certificate is the hard copy of DGE&T approved competencies in respective trades. The certificates illustrate specific grades earned by the worker, at the end of the training.

The project has been initiated across four districts of Madhya Pradesh-Bhopal, Indore, Gwalior and Sehore. In total, 19 sites have been identified across 04 districts for the pilot phase. The project is being implemented as per DGET guidelines with 02 training providers (Bhaskar Foundation & Infrastructure Leasing & Financial Services Limited (IL&FS)), 01 assessing body (Star Projects Pvt. Ltd.) and a certifying agency (Construction Sector Skill Council of India). The pilot project is being funded by the Madhya Pradesh Board of Construction Workers (MPBoCW).

The overall mode of recognising, training and certifying skills of the workers is foolproof. The initiative of DGE&T has been commendable; however, the impact of this on rural migrant is still not evident across the country. This gap between policy and its impact in this regard, needs to be studied. Such a study is not the focus here, describing the case of RPL intervention in the construction by the Government (DGE&T), has been emphasised here.

Analysis

The complex relationship between migration, employment and skill development in the equally complex and competitive labour market is discussed above. The case description of DGE&T_RPL initiative in the construction sector, the aforementioned relationship is examined. Below, an analysis of this is discussed.

With an increase rural to urban migration (see table 1 above), mostly, in search of employment and survival the issue of unemployment and poverty is further aggravating. Responding to this, many governments in the past have actively engaged in providing pro-welfare reservation policies along with vocational training institutes, to increase the number of employment and reduce existing rate of unemployment. Currently, the challenge of unemployment is complicated, it is not the same as few decades ago, new entrants into the unemployment scenario and the complex labour market conditions demand new interventions and new players in enabling these interventions.

From the profile of the rural migrant's, it is evident that the level of education and skill levels are abysmal, at least in the majority of them, given the demands for 'skilled labour' in the period of competitive labour market. Given this context, the need here is not to create and provide employment, only, but to ensure better employability among the migrants' adults, especially the rural to urban migrants.

The number of rural-migrants is increasing; however, the pace of accommodating and assimilating them into urban conglomerations is slow. Such a phenomenon is the root cause for unemployment, proliferation of slum-dwellers leading to poor quality of life. Given such a condition of life, the migrants are unable to participate actively into the socio-political realities of the (urban) locality, curtailing basic right of a being a 'citizen'.

The DGE&T intervention towards RPL for construction labourers responding to the growth of construction industry are significant. There is also a need for modular interventions in this regard in alignment with National Skills Qualification Framework (NSQF). The 'employability' factor as an element of empowerment and self-substance seeks further impetus, from not only government sector, but private (industries/corporate) and non-governmental organisations in the country. The DGE&T in the report on 'RPL of Construction Worker' mentions about two different (key) segments

within the construction section – buildings (housing, commercial, institutional and so on) and infrastructure (road, rails, dams and so on), however, closer look at the framework of RPL – while determining the trades for skill upgradation and defining the Competency Based Assessment and Training – does not emphasise on the differences in the trades and its assessment across two segments with the construction sector. In other words, the trades and assessment of these trades based on RPL are generalised for construction and infrastructure segments within the construction sector. The skills and competency required by the construction worker in infrastructure or/and building related work might be similar, but they are not the same. Arguably, such generalisations could provide employment to the worker based on prior skills, however it could make him/her less employable or unemployable, a feature necessary to obtain and maintain desired employment, than sticking to what is given. Freedom to choose one's employment, based on skills and passion is more benefitting than coercion.

In addition to limited scope of intervention, hitherto, the DGE&T modules for construction workers, have provided some respite for the rural migrants to assimilate (though slow) into the urban context. However, the number of migrants is increasing at a rapid rate so is the need for RPL and skill development along with urbanisation and unemployment, in the country. More interventions in near future are need of the hour.

Conclusion

In summary, migration and skill deficit are challenges that young India is exposed to in the contemporary era. Similarly, the opportunities provided by the young India, in terms of 'demographic dividend' and economic growth are also a reality today. Such an enigmatic situation has unpacked many facets related to migration, employment, skill development, and urbanisation and so on. In this chapter, a conceptual overview of these facets in line with existing practices to overcome the challenges mentioned above is discussed. It is argued that the harnessing the 'demographic dividend' and adopting the practice of effective RPL practices, the ongoing crisis in India can be addressed.

The chapter notes that the relationship between skill development and employability for migrant population is strong and so is the case for the country's development and its sustainability. Such a relationship is substantiated by examining the case of Recognition of Prior Learning of Construction Worker established by the DGE&T, MoLE, GoI.

The conclusion drawn in this chapter needs to be tested further on the 'field'. Interviews and field observations of practices related to RPL sessions, training sessions and interaction with migrant workers could enrich the insights already drawn from secondary data sources. The arguments, mentioned above are drawn

from the conceptual framework, incites need for further investigation to examine the complex relationship between migration, skill development, employment and economic growth in India.

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How the Adult Literacy Skills Measured in India

Arunima Chauhan

In societies dominated by written word, literacy is fundamental requirement for citizens of all ages in whole world. Literacy empowers the individual to develop capacities of reflection critique and empathy leading to sense of self-efficacy, identity and full participation in society. Literacy skills are crucial in all aspects of life such as parenting, finding and keeping a job, participating as citizen being an active consumer, managing one's health and taking advantage of digital developments both socially and at work. It is central to personal wellbeing and social development, and contributes to economic independence (EU high level group, 2012)¹⁷.

Improving adult literacy serves as a stepping stone not just to further education but for improving learning outcomes of their children, better employment, greater social inclusion, active and informed citizenship and more fulfilling lives. The personal benefits of literacy for adults are increased self-esteem and self-assurance, self-awareness of capabilities, and consequent empowerment and confidence to improve personal and professional life. For the holistic development of a nation it is very necessary that the whole population young, adult, women, marginalized all become literate.

According to Kofi Annan, former Secretary General of UN literacy is bridge from misery to hope. It is a foundation to build a more sustainable future for all (Irina Bokova).

In India despite numerous efforts made towards achieving 100% literacy, it is still a distant dream. Even after number of literacy programs were implemented, there are 268 million adult illiterates. As per the recent UNESCO's Global Monitoring Report based on the current trends, India will be able to achieve Universal Primary Education in 2050, Universal Lower Secondary Education in 2060 and Universal Secondary Education in 2085. This means India will be more than half a century late to achieve the deadline of 2030 Sustainable Development Goals (IAEA newsletter, Sep 2016). In such situation lifelong learning has an important role to play in bridging this gap.

This transnational essay is an effort to answer the following questions: What is literacy? What is lifelong learning? What is the importance of lifelong learning? What are the various policies and programs in India for promoting lifelong learning? Which institution played crucial role in taking the lifelong learning ahead? What role do the media play in propagating lifelong learning? How is the lifelong learning measured in

India? How is lifelong learning measured in rest of the world? What is the role of various organizations like Organisation for Economic Co-operation and Development (OECD), European Community (EC), National Institute of Open Schooling (NIOS), etc. in assessment of literacy? How the assessment tool is developed? What are the steps in whole assessment process? How do they contribute in strengthening the lifelong learning?

Media coverage, Policy and Programmes on Lifelong Learning in India

Spread over 3,287,263 Km with a population of 1.2 billion, India is the seventh largest and second most populous country in the world. But the literacy rate in India is still a matter of concern. We have attained a literacy rate of 73% in 2011 from 18.33% in 1947, but the rate of increase has been rather slow (Census, 2011)¹¹. The growth in literacy rate is not the result of formal education system only. The informal and non-formal education played an equally important role. Adults who were deprived of literacy were brought back through lifelong learning and continuing education. Currently lifelong learning is being used as an umbrella term to cover basic literacy, post literacy, continuing education and extension programme of different organization, refresher courses of professional bodies, private institutions & business homes but not conceived as an overarching framework of learning (Shah, 2007)⁹.

What Is Lifelong Learning? An important focus of Sustainable Development Goal (SDG) is 'Lifelong Learning opportunities for all'. Lifelong Learning comprises all learning activities undertaken throughout life with the aim of improving knowledge, skills and competencies, within personal, civic, social and employment-related perspectives (UIL, 2015). However lifelong learning has often been more narrowly associated with adult education, especially training to help adults compensate for poor quality schooling (UNESCO, 2000). The post-2015 development agenda conceives of lifelong learning as a process, one that begins at birth and carries through all stages of life. This approach to education incorporates multiple and flexible learning pathways, entry and re-entry points at all ages, and strengthened links between formal and non-formal structures, including formal accreditation of the knowledge, skills and competencies acquired through non-formal and informal education. Lifelong Learning is more than a longitudinal description of an education system that runs from cradle to retirement and beyond; it is an organizing principle, intended to improve people's quality of life.

Lifelong Learning is not a new concept for India. We can find its presence throughout the history of Indian society & culture. Emphasis on lifelong learning can be found in sacred of Indian viz Vedas, The Upanishads, Dharmasutra. During ancient times temples were centres of learning as they held public meetings, philosophical debates. Later on eminent leaders like Gandhi, Tagore espoused the cause of education through their speeches and writings. Social reform societies like Brahma Samaj, Arya Samaj, and Aligarh movement played an important role in creating

literate environment (Shah, 1999)⁷. We can't deny the fact that during 1980's & 1990's lifelong learning in India was equated with adult literacy mainly because of the massive number of illiterates.

Table – 1
Changing concept of Adult education India

Approaches	Cycles periods &	Key Concepts	Main Programmes
Traditional & Religious	First Cycle (1882-1947)	Basic Literacy	Night Schools, Social Reform Movements
Life-oriented	Second Cycle (1949-1966)	Civic Literacy	Social Education
Work-oriented	Third Cycle (1967-1977)	Functional Literacy	Farmers Education and Functional Literacy Programme, Shramik Vidyapeeths
Social change	Fourth Cycle (1978 till date)	Developmental Literacy	National Adult Education Programme Mass Programme of Functional Literacy Total Literacy Campaigns Continuing Education

Source: S.Y.Shah, 1999. *An Encyclopedia of Indian Adult Education*, New Delhi: National Literacy Mission, Government of India.P-5

Introduction of National Adult Education Programme (1978) shifted lifelong learning from mere eradication of illiteracy among adults to broader terms. Government of India (GOI), 1988 stated that *aspects like self-reliance in numeracy becoming aware of the cause of one's deprivation and moving towards amelioration of conditions through organization and participation in the process of development and acquiring skills to improve the economic status and general well-being and imbibing the values of national integration, conservation of environment, women's equality, observance of family norms are all part of lifelong learning. Lifelong learning is the cherished goal of the education process which presupposes universal literacy, provision of opportunities for youth, housewives, agricultural and industrial workers and professionals to continue the education of their choice at the pace suited to them* (GOI, 1986)². National Policy of Education (NPE) followed by National Literacy Mission (NLM)(1988) revitalised the whole lifelong learning in practice. Total literacy Campaign, Post literacy campaign, and Continuing Education (CE) proved to be a boon for lifelong learning. It touched all the aspects required for personal social & economic development. It introduced Equivalency Programme, Income Generating Programme (IGP), Quality of Life Improvement Programme, and Individual Interest Promotion Programme (Shah 2006)⁸. Equivalency Programme was meant for neo-literates & school dropouts to bring them whereas IGP was for acquiring or upgrade vocation skill, *Jan Shikshan Sansthan* (JSS) also played vital role in supporting CE for vocational training. *Saakshar Bharat* (2009), a new variant of NLM was launched on the

International Literacy Day, 8th September, 2009 with the following goals: to raise literacy rate to 80%, to reduce gender gap to 10% and minimize regional and social disparities, with focus on Women, SCs, STs, Minorities, other disadvantaged group (Saakshar Bharat Mission 2009)¹². It was not always the government that worked for lifelong learning but many institutions also played very important role in promoting lifelong learning.

Lifelong learning and Institutions

Although there are several universities in India offering a variety of programmes, in Delhi the two universities viz; University of Delhi and Jamia Millia Islamia has been very active in the field. The Department of Adult Continuing Education & Extension (DACEE) of University of Delhi had its beginning in the Adult and continuing Education cell in 1976. It was upgraded in 1982 as the centre for Adult continuing Education Extension with the aim of planned involvement of the university and colleges in community extension activities. The department was accorded statutory status as a full-fledged department in 1985. In 2014 it started full-time degree course at Master's level in Lifelong Learning (du.ac.in accessed on 11th Jan 2017)

The DACEE of JMI came into existence as Centre of Adult continuing Education & Extension in 1982. In 1990 with the introduction of Master's Degree in Extension Education CACEE became DACEE under the Faculty of Social Science. It is the first university in India to start a Master's degree in Extension Education. The Department now performs three fold activities:- Teaching, Research & Extension. The DACEE had been actively organizing adult literacy program through adult education centres in different communities around Jamia in order to prevent the neo-literates from reverting back to illiteracy. (jmi.ac.in accessed on 11th Jan 2017).

Among the non-governmental organizations in India, Indian Adult Education Association (IAEA) established in 1939, is the pioneer institution which has been promoting lifelong learning. IAEA organises Adult Education Conferences, Seminars, Workshops, Symposia, Round Tables, Group Discussions, etc., on different aspects of adult education and allied areas in different parts of the country. They serve as an important forum for exchange of views and sharing of experiences. It undertakes surveys and research studies on its own as well as in collaboration with other agencies.

IAEA is an empanelled agency for evaluation with National Literacy Mission. It has already conducted 42 external evaluations of Total Literacy Campaigns, Post Literacy Programmes, Continuing Education Programmes, Jan Shikshan Sansthan, Population and Development Education Programmes implemented by State Resource Centres. It also publishes IAEA Newsletter, Indian Journal of Adult Education, Proudh Shiksha, Population Newsletter and Journal of Population Education. (iaea-india.org accessed on 11th Jan, 2017)

Mass Media in Lifelong Learning

According to Directorate of Adult Education, India has produced several audio-visual programmes which are telecasted and broadcasted on adult education. Coverage area of these programs is very large as they are being broadcasted and telecasted in almost all the regional languages. The audio-visual programmes on adult education are presented under certain categories such as video programme, video spots, audio programmes and audio spots.

Among all the languages highest number of programmes are telecasted in Hindi (206 video programme) followed by English (63 video programme). Video programmes are telecasted in all the regional languages but video spots are not telecasted in Jaintia, Malayalam, Nagpuria, Rajasthani and Urdu. Audio programmes are broadcasted in all the language except English, Jaintia, Marathi, Malayalam, Nagpuria, Oriya, Punjabi, Rajasthani and Urdu.

Other than this, Doordarshan (National television) has currently 26 channels, covering 90.7% of geographical area. It has been telecasting regular programmes on adult literacy, farmer's education, health awareness, women's development, yoga, culture etc. which have been very effective in meeting the educational needs of masses. Two of the popular Adult Education programmes were *Chauraha* (The cross road) and *Khilti Kaliyan*, (Blossoming buds) telecast during 1990s. The first exclusive National Education TV channel '*Gyan Darshan*' was launched in January 2000 with Indira Gandhi National Open University (IGNOU) as a nodal agency. The launching of EDUSAT - world's first exclusive satellite for serving the education sector in 2004 has in fact given tremendous boost to the Lifelong Learning programmes in the country (Shah, 2007)⁹.

News related to adult literacy is published more in regional newspapers than in national newspapers. National newspapers give attention to adult literacy especially at the time of International Literacy Day celebrated every year on 8th September. IAEA publishes developments in adult education on a monthly basis in its Newsletter.

Despite these efforts, the base of lifelong learning in India continues to be weak. Due to lack of expertise and interest in lifelong learning and preoccupation with literacy program not much progress could be made during the five years (2007-2012). With the discontinuation of UGC funds to lifelong learning in July 2013 it will be challenging for the majority of Indian Universities to operationalize the policy guidelines. Almost after three decades, Government of India decided to revive its educational policy on education. The core objectives of education in the coming years should encompass four essential components – i.e. building values, awareness, knowledge and skills. But the success and failure of lifelong learning programmes can only be done through the assessment of outcomes which is done mainly by NIOS in India, which is discussed in the subsequent paragraphs.

Assessment of adult literacy in India

The periodical assessments conducted by the National Literacy Mission have brought out the success and outcomes of literacy programmes. Assessment programmes can also be instrumental in promoting courage and self-confidence amongst individual learners as they begin to recognize the level of their achievements in their attempt to attain an equivalency to formal education which would facilitate their vertical mobility for higher learning and understanding. Assessments not only provide feedback about the understanding and internalization of contents delivered to them but it also indicates the competencies and skills acquired by the learner from the learning process. Learner assessment is a process of ascertaining the outcomes of the programmes on two aspects; one, the proficiency level attained by a learner in achieving literacy skills (3Rs) and two, the empowerment experienced through participation in the programme assessment of literacy skills.

The basic literacy assessment in India is conducted by NIOS in collaboration with National Literacy Mission Authority (NLMA). The whole assessment programme is conducted on a large scale participation of various governmental and non-governmental institutions/departments ranging from national level to Panchayati Raj (village level self governing institution).

Main objectives of assessment of neo literates are:

- Assessing the proficiency levels of attained functional literacy skills (3Rs).
- Recognizing the level of achievements at basic literacy level through certification.
- Inspiring them towards a vertical mobility in education.
- Enhancing informal experience and provide equitable access to appropriate learning and life skills.

The assessment helps in evaluating not only the literacy skills of learners but their general awareness and empowerment too. This provides input for learner specific needs. Gained literacy skills facilitate learner's participation in lifelong learning process.

Principle of Assessment

- (i) Assessment is done to encourage the learners so it is non-incursive and summative in nature.
- (ii) All the basic literacy skills i.e. reading, writing, arithmetic are given equal weightage of 50 marks each.
- (iii) Learners are allowed to learn at their own pace
- (iv) Assessment is done by three level grading system i.e. A for 60% and above, B for 40-59% and C grade for less than 40%. Learners securing C grade are allowed to reappear in the examination to improve their level of competency.
- (v) Grade sheet is a joint certificate of NIOS and NLMA. Grade sheet- cum- certificate is given to all the learners participating in the assessment.

Development of Assessment tool

The assessment tool is developed mainly by the NIOS with help of SRC's resource person. Summative assessment tool is developed first in Hindi then it is converted in the regional language by the SRC's. SLMA sends three set of question answer to NIOS which is finalised after the workshop conducted by Directorate of Adult Education. Assessment is done by a three hour written test which is conducted twice in a year. The test is conducted on suitable Sundays of March and August respectively. Learners can come for the test as per his/her convenience between 10 am to 5pm but the duration of test is fixed i.e. 3hrs.

Learners can register themselves in advance from the next day of previous assessment till 10 days prior to next assessment. In case the learner is unable to register well in time, his/her registration can be done through spot registration from next day of the last date of advance registration till the date of current assessment. Each registration is valid for five years (NIOS, 2017)³.

Along with the above mentioned literacy assessment there are few other organisations which contributed to assessment at elementary level. Annual Status of Education Report (ASER) is brought out by the NGO *Pratham* since 2005. National Council Of Educational Research and Training (NCERT) has been conducting National Achievement Survey (NAS) since 2001 for class 3, 5, and 8. It is also necessary to refer to *Gunotsav*, a mass assessment process, first introduced in Gujarat in 2009, but now also implemented with variations in some other states as well. A key focus of *Gunotsav* is to highlight the levels of student learning (with a focus on basic skills like reading, writing and arithmetic operations in the lower classes and subject knowledge in the higher classes) and provide systematic year-on-year data and insights to improve learning levels in a measurable way (*Report of the Committee for Evolution of the New Education Policy, 2016*)⁶.

In India, the decennial census data remain the most widely acceptable and frequently quoted estimates of literacy. Besides, the National Sample Survey Organization (NSSO) conducts sample surveys once in every five years, usually in between two census years, to collect data on literacy status and other socio-economic characteristics of the population. The estimates of literacy by the NSSO can be viewed as the mid-term assessment of literacy in the country (Govind & Biswal, 2005)¹.

Assessment of Adult Literacy – the global perspective

When we take an overview of national regional and global trends over the past five decades we find that although there is an increase in the literacy rate throughout the world but it is more prominent among youths than adult. It is very sad to see that out of 758 million illiterates 2/3 are women. According to United Nations Institute of

Statistics data, goals of Education for all were missed by majority of countries. Now UN has adopted Sustainable Development Goal in 2015 with the pledge to ensure that all youth and a substantial proportion of adults both men & women achieve literacy & numeracy (UIS, 2016)¹⁰.

Global education policy appears to be developing driven by the needs of the knowledge economy, and producing a shared emphasis on competitiveness skill development and employability linked to the extensive of monitoring of performance and target setting. The global education field is said to be dominated by transnational organizations like OECD & European Commission (EC). These two organizations had different approach in promotion of education. European commission was interested in promoting European culture and identity through education, but the economy pressures forced EC to change its education policy and make shift toward neo-liberal policy similar to that of OECD.

OECD steers education through monitoring of performance through Programme of International Student Assessment (PISA) and Programme for the International Assessment of Adult Competencies (PIAAC). The OECD brought global exposure to education in Europe and changed its discourse. PISA gave a new direction to assessment which consisted of competition and comparison. It changed the system of education from one based on local tradition to evidence and learning from others.

What Is PIAAC?

The Programme for International Assessment of Adult Competencies (PIAAC) is an international comparative survey successor to IALS (International Adult Literacy Survey) three waves during 1990's and Adult Literacy and Life skills survey (ALL) two waves during 2002-2006 (Hamilton, 2015). According to OECD, PIAAC develops and conducts the survey of Adult Skills. The Survey measures adult's proficiency in key-information processing skills-literacy, numeracy and problem solving in technology rich environments and gathers data on how adults use their skills at home, at work in the wider community.

PIAAC conceived literacy more broadly than IALS and ALL. Encompassing the domain of prose and document literacy (assessed separately in IALS & All) furthermore, in PIAAC literacy includes the reading of digital texts, in addition to the print based. The quality assurance and quality control procedures put in place for PIAAC are among the most comprehensive and stringent ever implemented for an international household based survey (Paccagnella, 2016). This international survey is conducted in over 40 countries and measure the key cognitive and workplace skills needed for individuals to participate in society and for economies to prosper (accessed from oecd.org on 12th Jan, 2017).

PIAAC Survey is done by interviewing adults of age-group 16-65 years. 5000 respondents are selected from each participating country and they have to answer via computer and those who are not familiar with computer can be given paper pencil test. (accessed from oecd.org on 12th Jan, 2017).

PIAAC is used for collecting a broad range of information items that measure problem solving on technology rich-environment are only computer administered. Reading component tasks are only administered in paper & pencil mode. All participating countries are required to assess literacy and numeracy domain but problem solving and reading is option, including how skills are used at work and in other contexts, such as the home and the community. The survey is designed in such a way that can be administered in national language and is valid cross-culturally & cross-nationally (accessed from oecd.org on 12th Jan, 2017).

For assessing the use of skills PIAAC uses an innovative "Job-requirements approach". The employed adults are asked about the skills they use at their workplace and also how frequently do they use those skills at their workplace. While collecting information about skills used information about four broad categories of generic work skills. Cognitive skills, interaction and social skills, physical skills and learning skills (accessed from oecd.org on 12th Jan, 2017).

Cognitive skill comprises of reading, writing mathematics, and the use of communication technologies. Interaction and social skills cover collaboration and co-operation, planning work and use of time for oneself and others, communication and negotiation and customer contact. Physical skills involve the use of gross and fine motor skills. Learning skills cover activities such as instructing others learning (formally or informally) and keeping up to date with development in one's progression field. Respondents are also asked about the frequency and intensity of their reading and numeracy related activities as well as their use of ICT's at home and in the community (assessed from nces.ed.gov on 11th Jan, 2017).

The cognitive assessment under PIAAC is done by two methods: (a) Computer based Assessment (CBA) and (b) Paper based Assessment (PBA).

Computer-based assessment (CBA)

The computer-based assessment consists of the following parts, which are all automatically scored:

- *Information communication technology (ICT) core*: A set of easy basic computer tasks to assess basic functional computer skills necessary to take the main assessment on the computer.
- *Computer-based literacy/numeracy core*: A set of short, easy literacy and numeracy tasks to gather information about basic literacy and numeracy cognitive skills of the participants.

- *Computer-based literacy items:* The CBA literacy domain consists of 52 items based on the PIAAC definition of literacy. Of these 52 computer-based items, 30 come from IALS/ALL and will serve as linking items to equate results on PIAAC with results from IALS and ALL. The remaining 22 computer-based literacy items were newly created for PIAAC.

Literacy items (both CBA and PBA) ask participants to answer questions about texts that are drawn from a broad range of real life settings, including occupational, personal (home and family, health and safety, consumer economics, leisure and recreation), community and citizenship, and education and training contexts.

The questions or tasks using these texts are meant to assess three specific cognitive processes:

- Access and identify
- Interpret and integrate
- Evaluate and reflect
- *Computer-based numeracy items:* The CBA numeracy domain consists of 52 items based on the PIAAC definition of numeracy. Of these 52 computer-based items, 30 come from IALS/ALL and will serve as linking items to equate results on PIAAC with results from IALS and ALL. The remaining 22 computer-based numeracy items were newly created for PIAAC. Numeracy items (both CBA and PBA) ask participants to answer questions about quantity and number; dimension and shape; pattern, relation, and change; and data and chance.
- *Problem solving in technology-rich environments (PS-TRE) items:* The PS-TRE domain consists of 14 items based on the PIAAC problem solving framework. All of these items were newly created for PIAAC. All of the PS-TRE items were newly created for PIAAC specifically for testing participants' ability to manage tasks that can include multiple steps and, in some cases, multiple technology environments. For example, items may require participants to navigate between e-mail and spreadsheet environments to locate information and create a table which represents that information for a specific purpose. The PS-TRE tasks are all scenario-based, ranging from easy to difficult (accessed from <https://nces.ed.gov/surveys/piaac/cba.asp> on 12th Jan 2017).

Paper-based assessment (PBA)

The paper-based assessment consists of the following parts, which are scored by expert scorers:

- *Paper-based literacy/numeracy core:* A set of short, easy literacy and numeracy items that will gather information about the basic literacy and numeracy skills of the participants and serve as a basis for routing them to the literacy/numeracy or the reading components booklets.

- *Paper-based literacy items:* 24 literacy items, based on the PIAAC definition of literacy. Of these 24 items, 6 are paper-based only and 18 items are presented in both the paper-based and computer-based assessments. All literacy items are authentic, culturally appropriate, and representative of the purposes adults pursue in their daily lives at home, work, and in community contexts. As a set, they cover a range of difficulty from easy to hard.
- *Paper-based numeracy items:* 24 items, based on the PIAAC definition of numeracy. Of these 24 items, 4 are paper-based only and 20 items are presented in both the paper-based and computer-based assessments. Paper-based numeracy items cover the same areas as the computer-based numeracy items in terms of contexts, responses, mathematical content/information/ideas, and forms of representation.

Reading Components (RC): The reading components domain of PIAAC is designed to provide information on the reading abilities of adults with limited English literacy skills. The RC domain includes questions about reading vocabulary (34 items), understanding the literal meaning of sentences (22 items), and comprehending multi-paragraph passages (44 items). These questions are designed to provide information about the skills of the target population (i.e., lowest performers) and to capture data on timing and accuracy. In this way, reading components measure the accuracy and fluency (as shorter response time) of respondents.

Print Vocabulary questions present an image and four concrete word choices, where the participants must select the correct word choice that matches the picture. Sentence processing questions asks participants to make sensible judgment about accuracy of a sentence. Passage Comprehension questions present passages embedded with a choice of words to complete the passage (accessed from <https://nces.ed.gov/surveys/piaac/pba.asp> assessed on 12th Jan 2017).

Conclusion

It is very sad to see that in a country like India, where lifelong learning is embedded in its history literacy skills and competency is still a major concern. Though various policies and programs have been made, implemented and evaluated but to achieve the goals of 100per cent literacy, skills and competency proper assessment of the outcomes of these programs is equally important. Learners in India are considered as literate after passing the assessment test but whether they are competent enough or not remains questionable because they pass the assessment test even with a C grade and reappearing in the examination is completely their choice. The structuring of the assessment process in India is satisfactory as it involves organizations of different level and all levels in this process but the output of assessment is not satisfactory. India needs to participate in international assessment conducted by organizations like OECD and EC as it will help India in making its learners at par with the learners throughout the world. In today's globalized world cross national

assessments are very important. India needs to participate in PIAAC as it will help Indians to:

- Identify the gaps in key competencies which hindering personal & society's success.
- Assess the impact of competencies on various aspects of life such as social, economic, educational, etc.
- Assess the importance of education and training in making individuals competent to fulfil their social & economic demand
- Identify the risk population &
- Identify the links between key cognitive skills and variables

But before doing the PIAAC assessment it is very necessary that PIAAC's assessment tools are developed according to the need and requirements of the learners in India e.g. computer based literacy assessment appears to be vague in India, where computer is still not within the reach of everyone. We can say that Indian learners have miles to go before making education for all a reality or achieving SDG's.

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The Catalytic role of Adult Literacy in Transforming the Lives of Women in Rural India

Khaleda Gani Dutt

This doctoral thesis explores and investigates the critical role of Adult Education and Literacy in transforming the lives of rural and marginalized women in the selected regions in India. Adult Literacy is envisaged as a powerful vehicle to empower and equip people with the required life skills paving a path out of poverty. The Global Education Monitoring Report 2016 (UNESCO, 2016) cited the global adult illiteracy rate in 2014 to be 15 percent which was equivalent to 758 million adults. Out of which 63 percent of adults unable to read and write are women. In both Southern Asia and sub-Saharan Africa around one in three adults are illiterate whereas in Northern Africa and Western Asia the proportion is nearly one in five. In Afghanistan figures reveal that literacy rates for males are more than twice than those of women (UNGEI, 2016).

The Socioeconomic and Caste Census painted a stark picture of India's poverty and deprivation predominant in rural areas. A survey that included 300 million households highlighted an overwhelming majority i.e. 73 percent reside in the villages living below the poverty line (Katyal, 2015). The survey indicated that less than 5 percent of the rural population earn enough to pay taxes and less than 10 percent have salaried jobs. In the report released by the Indian Government Planning Commission it was estimated that out of the 260.5 million individuals in rural India, 30.9 percent were living below the poverty line. The report also mentioned a decline in the poverty ratio from 39.6 percent in 2009-10 to 30.9 percent in 2011-12 in rural India and from 35.1 percent to 26.4 percent in urban India. During this period the all-India poverty ratio fell from 38.2 percent to 29.5 percent and lifted 91.6 million individuals out of poverty (Government of India, 2014). The India Human Development Report (IHDR) released in 2011 had showcased that in rural areas an average 28.3 percent of the population lives below the poverty line out of which 36.8 percent belong to the Scheduled Caste (SC) compared to 39.8 percent in urban areas. Poverty continues to remain a chronic condition for almost 30 percent of India's rural population and is deepest among members of SC and Scheduled Tribes (STs) in the country's rural areas.

Poverty is deepest among members of SCs and STs in the country's rural areas. In 2005 these groups accounted for 80 percent of poor rural people, although their share in the total rural population is much smaller.

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The Census of India 2011 further elaborated that 27 million households, constituting 11 percent of the households in the country were headed by women (Chandramouli, 2011). The responsibility of these households rests on the shoulders of women-widows, single unmarried women, deserted or divorced women. These women come from the poorest of the poor households, socially excluded and are the most vulnerable. Poverty among female-headed households are attributed to intra-household discrimination against girls in education, which leaves them with fewer skills than boys, contributes to fewer economic opportunities for women, and consequently higher poverty rates among female-headed households. Studies show that nearly 40 percent of women-headed households do not possess permanent shelter, around 45 percent of women-headed households live in one-room premises, and 29 percent of women-headed households do not possess any assets such as a radio/TV/telephone/bicycle/scooter (Patel, 2009).

Aim and Objectives

The overall aim of this research is to examine the role of Adult Education and literacy in changing the lives of marginalized women in rural Rajasthan and West Bengal in India.

The specific objectives are: 1) to trace similarities and differences in the socio-economic context of the rural women in Bhilwara District Rajasthan and Howrah District West Bengal, 2) to identify and analyze some of the key factors that contribute to and sustain women's access to adult education, 3) to study the linkages between education, empowerment and transformation and 4) to examine the role of stakeholders and the civil society in sustaining women empowerment and transformation in Bhilwara District and Howrah District

Significance of the Study

Within India there are wide inter-state variations regarding different indicators, such as Income Poverty, Total Literacy Rate, Infant Mortality Rate, Sex Ratio, and many more. Unlike West Bengal with a literacy rate of 76.26 percent; the literacy rate in Rajasthan cited at 66.11 percent in all the three categories (total, male and female) fell below the national average of 74.04 percent (Census of India 2011a; b). By comparing the two cases i.e. Howrah District in West Bengal and Bhilwara District in Rajasthan the study demonstrates that it is important to understand the social and cultural traditions that often hinder women from becoming literate. Most research focuses on program evaluation of adult education but this study analyses, informs and explains some of the reasons behind women wanting to empower their lives through education and the challenges they have to overcome to gain status not only within the society but in the households. The two cases also draw attention to the inter-regional cultural diversity.

Limitations of the Study

The Indian subcontinent is a land of cultural and geographical diversities which is reflected in the number of languages spoken across the country. The states of India not only have their own regional language but incorporate numerous dialects spoken by the rural, indigenous and the tribal population.

The selection of informants and the statistics based on the interviews are not representative in a statistical sense. Since, it is a comparative case study general conclusions about the entire population cannot be drawn from this study. However, it identifies tendencies that can be generalized to people living in the same situation (Goetz & LeCompte, 1984). A conscious effort has been made to forge a conceptual link between the macro and micro levels throughout the study by using the concept of 'gender', which by itself embodies both societal and personal dimensions

Literature Review: Previous Studies on Literacy and Transformation

Studies show that by investing in skills for socio-economic empowerment of women, identifying the gender barriers that prevented girls from attending schools and by promoting employment opportunities and income generation for both men and women in Asia and Africa ameliorated the lives of women and their families. United Nations Industrial Development Organization (UNIDO Gender) 2013 envisions a world where economic development is inclusive, sustainable and equitable. By targeting sectors with a high potential for wealth creation, food security or export promotion UNIDO has worked in countries namely Bolivia, China, Pakistan, Panama and Peru. By providing technological assistance to rural women cooperatives involved in Shea Butter production in Mali total sales of the groups doubled and women's income increased significantly. At least 1200 women have received training in 160 women's cooperatives involved in Shea Butter Production. Over 10,000 women were trained in Pakistan in production techniques for textiles, gems and mosaics and including business management and entrepreneurship. In addition UNIDO Women's Entrepreneurship Development program helped over 6,000 women set up new enterprises with 680 women turning 'master trainers' who continue to deliver the programs training courses. Whereas, in Morocco the UNIDO Entrepreneurship Programme assisted over 400 women by improving the competitiveness of small scale olive production, textile and food and vegetable dyeing production which are all managed and owned by women. All women entrepreneurs were trained in business management, good manufacturing, traceability systems that resulted in a 40 percent increase in productivity and a 50 percent increase in income. Evidence-based research drawn from Africa, Asia and the Pacific, Latin America and the Arab States reiterate that transformation and empowerment are interwoven. They also stand testimony to the fact that "to work", literacy programs must be participatory, gender sensitive and relate to the needs of the rural, marginalized women. The advancement of women has been an area of concern for the global community taken up by international

organizations, national organizations and non-governmental organizations working at the grass roots. Undoubtedly, education is the pathway to success as has been demonstrated in the documented cases. The projects and the initiatives are launched keeping in mind the contextual history of the region which accounts for its success. However, what studies often fail to point out are the intangible power relations existing within households and in the society. In her work on Gender and Development Kabeer (2005) points out that the positive attributes to education as empowerment is likely to be conditioned by the society it represents and the social relationship it embodies. The intangible power relationships are often missing from these studies—negotiations which women have to make within their private sphere to have access to education and be empowered. This study takes up these sensitive issues through the interviews, collates the information and depicts the multi-dimensional nature of inequalities. It looks at the conditions needed to bring about the transformative change in the lives of women and their agencies that allow them to become the change agents.

The Theoretical Framework and the Conceptual Construct

Paulo Freire (1970) placed literacy development in the context of personal empowerment. When education and training not only provide people with the necessary knowledge and skills for development of the people but also empower people with knowledge and skills they need in order to take charge of their lives and bring about changes in the society in which they live, it takes on a new and powerful meaning. In this new paradigm, people can take control of their lives rather than just respond to the things imposed on them. The Indian Diaspora is woven around castes, languages, religions—a young nation boasting of an ancient civilization in which inequalities are deeply ingrained in its culture and traditions. Although critical government interventions have succeeded in increasing the literacy rate of women in both urban and rural areas general household characteristics such as income, caste, occupation and education attainments of parents still continue to determine access, attendance, completion and learning outcomes (Ramachandran, 2009) of girls and women from severely disadvantaged communities. The enumerated theories on Gender and Development, Theory of Representation, Intersectionality, transformative learning and the conceptual constructs on power and the capability approach engages with gender relations as a category and accentuates the need to focus on social relations. This shifts the lens from studying 'women' only to understand how 'women' are placed in their status within households and the community.

Methodology

The study explores the relation between social norms, societal structures, social entities, policy legislations and the role of adult education in empowering rural and marginalized women. The qualitative study is interested in illuminating that the rich and diverse fabric of the Indian society based on generations of historical and cultural traditions plays an intrinsic role in shaping the lives of its women. The field work

undertaken in Bhilwara District Rajasthan and Howrah District West Bengal attempts to interpret people's behavior, actions and opinions within the context of their natural environment or surroundings. The fifty-two interviewed informants chosen debated about the catalytic role of adult literacy and empowerment. In the semi-structured interviews and focus group discussions questions were raised around socially constructed roles and power relations to provide valuable insights of the key issues to be discussed. A qualitative and comparative case study approach is selected to illustrate the uniqueness of the regional location studied simultaneously pointing out their similarities and differences. The locational comparisons draws out the diversity of the regions, socio-economic context, impact of adult education on rural women and the emerging opportunities. The study compares whether or not adult literacy has been a key factor in transforming the lives of women in Bhilwara District in rural Rajasthan and Howrah District in rural West Bengal. The primary reason for choosing multiple regional settings is to reflect the diversity of the Indian subcontinent. The language skill of the researcher was critical to be able to communicate with the participants in their languages spoken in the areas i.e. Hindi and Bengali having a direct impact on the quality of the findings in the study. The semi structured interviews and focus group discussions brought out significant patterns about the social systems experienced by the informants. The interview guide helped in constructing the themes and sub themes to analyze the interviews. The themes relate to the research focus built on codes identified in the transcripts. Based on the data the researcher was able to generate the theoretical understanding relating to the research focus which is on gender, education and transformation/empowerment. In this study one of the main themes that was identified was 1) Ideological critique, 2) Education impact and 3) Transformation which lead to further subthemes such as gender, class, rural, women, literacy, social, political and economic impact; empowerment. Narratives have also been included in the findings to illustrate the cases under scrutiny and an attempt is made to keep the language of the respondents as far as possible in the narratives cited. To strengthen the qualitative case studies triangulation is used to enhance the validity of the research findings. This strategy is used to eliminate the presence of bias and to corroborate to the findings. The three forms of triangulation used are 1) data triangulation from focus group discussions and semi-structured interviews 2) theoretical triangulation and 3) methodological triangulation. *

Results

Most of the informants were below the age of forty from families with minimum four to six members. The majority acquired literacy through adult education (e.g. such as income generation training, life skill training) organized by their group leaders. In Bhilwara District, Rajasthan the majority worked at construction sites or was part time laborers. Whereas, in Howrah District, West Bengal a large number of the informants were members of a micro-credit organization. In spite of variations in terms of caste, age, educational status of the informants most of them shared similar backgrounds, challenges and experiences. The candid interviews revealed their trust

in me as a researcher which has been upheld in the narratives transcribed by me from Hindi and Bengali into English for comprehension and for a wider outreach. The data assimilated from national documents reaffirm that along with child marriage, domestic violence and being widowed strongly signal that interventions at grass roots are critical for strengthening the voice of women, creating an awareness of their rights and duties and working towards their emancipation and liberation. Child marriage in the narratives has been associated with religious practices, cultural traditions and poverty. The main reason behind it being still widely practiced specially in the tribal areas visited is the economic benefits received by the bride's family. This was proclaimed to be the fundamental reason that has sustained the practice. The most common reason being widowed in this study arose from being married to older men and poverty. The women interviewed were hesitant and reluctant to remarry since they 'would not find suitable grooms'. Only old men would approach them' and they refused to repeat their traumatic experience all over again. They spoke frankly about the ordeals suffered at the hands of household members who often mistreated them and took away the little possessions (jewelry, money) that they had received as gifts from relatives. The factors responsible for domestic violence were the necessity to show control over women, alcoholism and when wives refused to part with their savings or tried to assert their opinion. These incidents reveal the intangible power relations that define women's status at home and her status within the family. Documents on the Government of India's website recognize domestic violence as a serious offence punishable by law. Most women refrain from lodging complaints because it would bring shame to the families and the social stigma attached with it. Both West Bengal and Rajasthan fall within the top ten states reported to have the highest percentage of domestic violence. The narrations also suggest the importance of bringing men into the picture. The benefits of education signals a change in the mind set of family members indirectly leading to social benefits such as education of children, poverty reduction and in softening of traditional roles. From the voices encapsulated in this section one can infer the vital role of the civil society. The informants were able to overcome their hurdles due to helping hands that guided them towards a better and brighter future one that they were fully in charge of and were in control of their destiny. Society's actors are in a position to create political space for reform by building coalitions to increase the demand for change. Social mobilization can widen the platform of support and reach the unreached. Social coalitions are fruitful pacts that enable policy to reach the marginalized women whom they were designed for. In Bhilwara District Rajasthan and Howrah District West Bengal the invaluable social alliances continue to lift women and children out of poverty.

The findings showcase that no single factor can explain changes in gaining power or become empowered. In the narratives any one factor could act as the catalyst for change. For example changes in marital and family conditions create opportunities for some women "when husband supports his wife" or if there is an additional source of income and "the mother can pool her resources to send daughters

to school". For some it could also be "divorce" to escape domestic violence from their husbands, and if she is a widow having access to the various support mechanisms available from a public-private partnership (PPP) and a stepping stone to pathways of empowerment. By amplifying their voices and increasing their ability to make choices are yielding broad transformative dividends for them and their families, communities and societies. A broad consensus among the informants revealed that both men and women chose to gain from the education. Achieving literacy would secure a better future for their children, access to livelihoods opportunities and ameliorate their living conditions. Many also pointed out that it is imperative that both men and women together need to make decisions regarding their children and it is not the lone responsibility of the mother. Women having husbands with basic adult education were more involved in decision making surrounding their children's education and encouraged to work. I noted that in these cases there was a unanimous consent that children should complete their education prior to getting married. The interviews disclosed the evidence of empowerment, the sources of transformation and brought to the foreground the contextual setting to explain the gendered roles.

Analysis and Discussions

The Indian subcontinent is a cultural mosaic and is defined by its heritage, linguistic regional affiliations which are anything but homogenous. The concentration of socially and economically deprived groups i.e. the SCs and STs also indicates the varying magnitude and breadth of socio-economic exploitation in the different regions of India. In this study I have tried to depict this inter-regional diversity through the contextual setting which gives us a glimpse of the multicultural and multi-plural society of the country. Therefore, qualitative comparative analysis is vital to elucidate cross case patterns to steer policy focus on socio-economic contexts to have a sustainable impact. I found that the patriarchal settings in the districts of Bhilwara and Howrah influence justify and normalize women's role in society. It however varies between contexts and locations and is significantly mediated by additional social markers such as race, ethnicity, socio-economic positions, caste and religion (Kabeer, 1994; Stromquist, 2015). To understand the complexity of the gendered relations questions asked were about their status at home, their role as mothers and daughters and their family. The interview guide was constructed around three key areas –gendered relations, their views on the role of education/learning and transformation. Some of the key questions asked were: describe your household–your role, number of family members, your responsibilities and duties, number of dependents (if any); Has being exposed to adult education/literacy classes changed the way you think? If yes elaborate; define transformation in your own words. The critical points raised by the informants viewed transformation as control over resources, ability to take decisions and act in their own interests. The analysis manifests that empowerment and transformation are symbiotic and would also be associated with positive achievements in terms of the health and survival of their children. The changes in the power relations are the impact of education which reconstructs households,

community and societal relations. When women are empowered their opinions are valued by member of the society and in this case the Panchayat (elected body of the village). By learning to think radically some have approached the Panchayat to speak about problems that women face, spread awareness and necessity of getting girls into schools by talking to parents convincing them to send their daughters to school, standing up against early marriage and taking up arms against personal violence in unison. Access to adult education and literacy provided women the knowledge and skills to procure better lives and to be able to reach out to other women sharing similar lives to develop collective identity. Education and economic independence gave them the strength to act autonomously and challenge the status quo. As is evident in the narratives the economic dimension of empowerment provides women with the material resources (credit, food) in addition to the cognitive resources (education, information, and training) to bring about transformation. Households are often the center of power relations and play an invaluable role in structuring the chain of power relations i.e. the way women should be treated and the delegation of household chores based on seniority and hierarchical relations. The informal groups organized by women both in their locality (Rajasthan) and in the micro-credit organization (West Bengal) provide them with informal spaces. These spaces are vital for removing the barriers preventing women from exerting decision-making power in the formal arena. One could perceive in these discussions that informal associations enabled a more flexible environment, provided a less threatening space offering a more practical solution to specific issues that are less likely to cut along party or ethnic lines. The multiple sources of information gave not only more insight into the study. It complemented the documents studied both national and international which evidenced that education is the vehicle of transformation. The focus group interviews in both regions of the country accompanied by semi-structured interviews also yielded the same results articulating the intrinsic role of education to promote women empowerment for a better future. The theoretical alignment (refer to Chapter 3) emphasizes that adult education is intrinsic for women to respond to their socio-economic needs so that they can lift themselves out of poverty. It equips them to contribute and participate in their communities. The triangulated inquiry increased the validity and credibility of the study and facilitated to establish a holistic and contextual portrayal of this study could be captured by increasing the understanding of the social complexity prevalent in the Indian subcontinent. The analyses draws out deeper issues related to globalization that pointed out the necessity of integrating technology to improve the quality of lives in rural areas. All informants had cellular phones which made it easier for them to stay connected with each other, report to the organization (West Bengal) and step the possibility of being reachable for manual work in Rajasthan. Mobile phones also contributed to the transformative impact. All the women declared that owning a mobile phone had increased their income and their access to economic opportunity. The resources reallocated to pay for a phone subscription were from other personal items. The narratives in this study emphasizes the need of educating the poor marginalized women in rural India. It also shares but does not generalize some of the common issues such as child marriage,

dowry, domestic violence, poverty found in the subcontinent that are responsible for women disempowerment. The analysis elucidate and relate to the common concerns which the Government of India faces in terms of caste, class, poverty, inter-regional disparity, diversity and outreach.

Conclusions and Suggestions

Education for Rural Transformation (ERT) is an essential component to eradicate hunger, foster women empowerment and reduce food insecurity for the most vulnerable population. For the rural poor knowledge and capacity building offers them a life out of poverty, builds women's identity enabling them to participate fully in social and political life. Research indicates that increase linkages between adult education and economic independence have impacted fertility rates, improved health and sanitation practices and weakening traditions that dis-empower women (World Bank, 2014). Rural transformation is a cornerstone to a sustainable future. In this transformation 'women' play a pivotal role (FAO, 2013) as they are central to the development of rural areas and bolster national economies. The measures taken by the organizations and individual initiatives provided opportunities for women to discuss their problems with others and exchange viewpoints in their meetings (Stromquist, 2002). In West Bengal these organizations provide the platform and "make visible hitherto hidden categories of women have needs and lay bare the connection between different aspects of women's lives" (Kabeer, p. 230, 1994). Whereas in Rajasthan concerted efforts of individuals enabled resources to equip the women to get back into education, and helped families to carve out a better future for their daughters. It signals the need to synchronize grass roots organizations with the 'well laid plans' of the government machinery and the international agenda to combat gender inequality. In spite of leading separate lives the women in Rajasthan and West Bengal shared a lot of similarity visible in their socio-economic background and their greater tendency to devote their incomes to family rather than personal welfare. It became evident in the study that personal income was intrinsic to their well-being-mental, social and political. In both districts the most critical need was economic and adult literacy was the catalyst or the agent for change as elicited by the women. The case studies equally highlights that strategic partnerships are vital to education for rural transformation. Brokering, international, national and local partnerships to promote sustainable development impacting lives, breaking out of intergenerational poverty cycle make literacy a potent weapon for change. The comparative case studies from across the world (refer to Chapter 2) reviewed in the present study underline the burning desire of the women to work towards empowerment and transformation. It was interesting to note that majority of women acquired functional, sustainable literacy and numeracy skills and acknowledged the need for mobile phones to be able to reach out to others and for secure livelihoods. This emphasized the impact of telecommunications as an effective tool for overcoming physical barriers. This stresses that the language of literacy programs, interventions must be contextualized to meet and address the challenges caused by social inflexibility and customs especially in

India. "Progress requires strong leadership, good governance, efficient organization and adequate financing" (UNESCO, 2006, p. 230). The empowerment skills women gain enable them to create more effective social skills which in turn support the empowerment of more women. It is a proactive process and must operate simultaneously on the two fronts (Stromquist, 2002). A system of privileges and deprivation has been created when certain diversities by passing through the process of differentiation have become hierarchical with the passage of time. Language, caste, region, religion, and physical space could be considered important elements when chalking out gender smart policies effecting rural and marginalized women in the Indian subcontinent.

Implications for Future Research

For the very first in India Census 2011 indicates that the gap in literacy rate between urban and rural areas and between males and females has also declined. The India Country Report 2014 on the progress towards the MDG Goals also laid emphasis that Goal 3 which is to promote gender equality and empowerment of women is on track. However, the state of Rajasthan is still unable to arrest the high literacy gap between men and women which is 27.1% unlike West Bengal which stands at 11.5 percent. The primary focus of the MDG report is on reducing gender gap in education by monitoring girls' enrolment on primary, secondary and tertiary levels of education (Government of India, 2014). Surprisingly it does not directly address the issue of Adult Education and Literacy nor the inter-regional diversities that downplay women's equality.

The study is an attempt to unpack the inter-regional diversities that exists in the Indian subcontinent. A longitudinal study would deepen our insights about the cultural context of the states to gain better insights into the problems faced by rural and marginalized women. Qualitative studies need to be carried out amongst the communities of the target groups to enhance knowledge and to make policies more contexts specific and effective. This would enable policy makers to align interventions both vertically and horizontally. If achieved adult education and literacy will be instrumental in alleviating poverty, improving maternal health, reducing child mortality and creating an environment for sustainable development.

The broader implications of carrying out the study spells out the goals indicated in the SDG 2030 Agenda that has been proclaimed by world leaders in September 2015. It reiterates that ERT and SDG are mutually complimentary and overlap having similar concerns in both agendas. It expounds that economically sustainable poverty reduction requires a process of poverty oriented structural transformation to reach the unreached. In rural areas reforms undertaken must give women equal rights to economic resources as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources in conjunction with national laws (Ahmed, 2016).

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Empowerment has been identified as one of the key constituent elements of poverty reduction, and as a primary development assistance goal. The promotion of women's empowerment would lead to address the development issues and also ensure the social justice. A policy research report presented by the World Bank identifies gender equality both as a development objective in itself, and as a means to promote growth, reduce poverty and promote better governance. The value of concepts lies precisely in its fuzziness. So it would give the space for the policymakers, practitioners and academicians to define the concept with some measurable construct and that should be validated by the implementation of strategy and outcome.

An attempt has been made in this paper to study the women empowerment issues in the context of India measuring the change in the level of education and its impact on their economic aspects where socio-cultural issues act as moderators. The paper begins with a presentation of definitional and conceptual issues. Section II discusses measurement issues and the challenges to operationalizing women's empowerment empirically. Section III develops a theoretical model considering education as tool of women's economic empowerment. Section IV provides some conclusions and recommendations.

2. Literature Survey

2.1 Conceptualizing Women's Empowerment

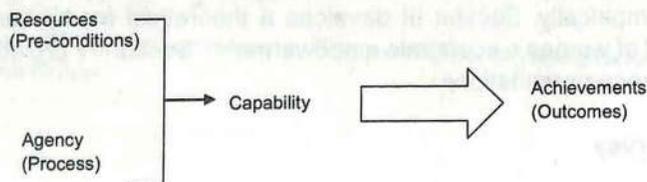
"Empowerment" has been used to represent a wide range of concepts and to describe a proliferation of outcomes. The concept may often be promoted as empowerment of individuals and organizations of women (Sen and Grown 1987; Jahan 1995; Kumar 1993) but vary in the extent to which they conceptualize or discuss how to identify it. Empowerment means individuals acquiring the power to think and act freely, exercise choice, and to fulfill their potential as full and equal members of society. The United Nations Development Fund for Women (UNIFEM) includes the following factors in its definition of women's empowerment:

- Acquiring knowledge
- Developing a sense of self-worth, a belief in one's ability to secure desired changes and the right to control one's life;
- Gaining the ability to generate choices and exercise bargaining power;

- Developing the ability to organize and influence the direction of social change to create a more just social and economic order, nationally and internationally.

Another line of thought in development promotes social inclusion in institutions as the key pathway to empowerment of individuals. Bennett (2002) has developed a framework in which "empowerment" and "social inclusion" are closely related but concept wise they are separate. Bennett describes empowerment as "the enhancement of assets and capabilities of diverse individuals and groups to engage, influence and hold accountable the institutions which affect them." Social inclusion is defined as "the removal of institutional barriers and the enhancement of incentives to increase the access of diverse individuals and groups to assets and development opportunities." The empowerment process operates from below and involves agency, as exercised by individuals and groups. Social inclusion, in contrast, requires systemic change which may be initiated from above. Systemic change catalyzed by social inclusion is necessary to sustain empowerment over time.

Empowerment entails a process of change (Kabeer, 1999). The process by which an disempowered people (have no capability to make choices) has developed an capability to make choices. Our notion of empowerment is about change, it refers to the expansions of people's capability to make choices in a context where this ability was previously denied to them. The ability to exercise choices was represented in terms of three interrelated dimensions:



Resources indicate not only economic resources but also social and human resources. In a broader sense, resources are acquired through multiplicity of social relationship conducted in the various institutional domains which make up a society. Agency encompasses the motivation and purpose which individuals bring to their activity. The individuals try to explore 'the power within'. In the positive sense of the 'power to', agency refers to people's capacity to define their own life objectives and to pursue their own goals, even fighting against the adverse situation. Resources and agency together constitute capabilities; the potential that people have for living the lives they want (Sen, 1985).

2.2 Economic Empowerment of Women

Economic empowerment has been defined as a process whereby women's lives are transformed from a situation where they have limited power and access to

economic assets to a situation where they experience economic advancement and their power and agency is enhanced in the following areas (VeneKlasen and Miller, 2002) (change outcomes):

- Power within: the knowledge, individual capabilities, sense of entitlement, self-esteem, and self-belief to make changes in their lives, including learning skills for jobs or start an enterprise.
- Power to: economic decision-making power within their household, community, and local economy (including markets) not just in areas that are traditionally regarded as women's realm but extending to areas that are traditionally regarded as men's realm.
- Power over: access to and control over financial, physical and knowledge-based assets, including access to employment and income-generation activities.
- Power with: the ability to organise with others to enhance economic activity and rights.

Economic empowerment will only be possible and sustainable if there are changes at different levels: within the individual (capability, knowledge and self-esteem); in communities and institutions (including norms and behaviour); in markets and value chains; and in the wider political and legal environment (Golla et al., 2011).

The research gap in the concept of empowerment and its measure has been clearly indicated by an NGO activist cited in Batliwala (1993): "I like the term empowerment because no one has defined it clearly yet; so it gives us a breathing space to work it out in action terms before we have to pin ourselves down to what it means". It is not possible to provide an exhaustive study of various attempts to measure women's empowerment but the study on women's empowerment on developing and underdevelopment nation clearly indicated the decision making power of women that may be justified by their access and control over resources (Razavi, 1992; Hashemi et al., 1996; Sathar & Kazi, 1997; Jejeebhoy, 1997; Kishore, 1997). Still no study has revealed the relationship considering education as a measure of capability, constitutes of resources and agency and its impact on women's power to take decision in the labour market which is surrogate measure of achievement. An attempt has been made in the present study to measure the relationship between these two in the context of developing economy like India.

3. Theoretical Framework

In this paper, literacy rate is taken as source of capability of women in the Indian society to explore the power within them. The capability of women, measured in terms of education, has lead to the higher level of empowerment, measured in terms of their shifts from agricultural workers towards other workers i.e. factory workers, plantation workers, those in trade, commerce, business, transport, mining, construction, political or social work, all government servants etc. (Ref Fig 1)

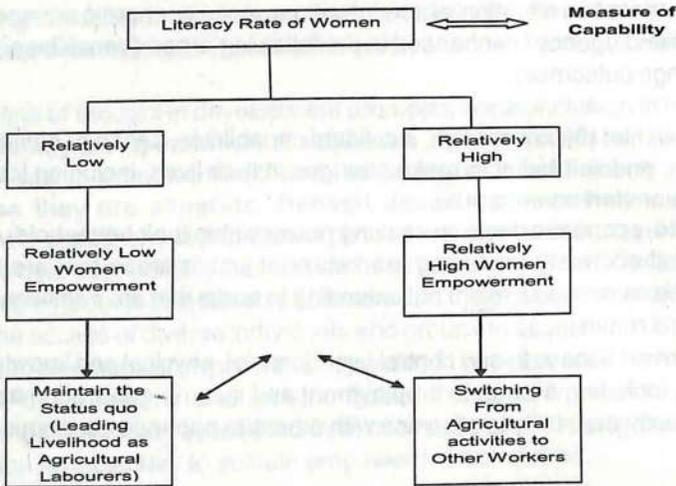


Fig- 1: Conceptual Framework of constructs of Women Empowerment

The consequences of changes in the educational level have an impact on socio-cultural dynamisms which ultimately leads to higher economic level. The economic empowerment of women has given the choice of taking decisions and their individual preferences (Ref Fig 2).

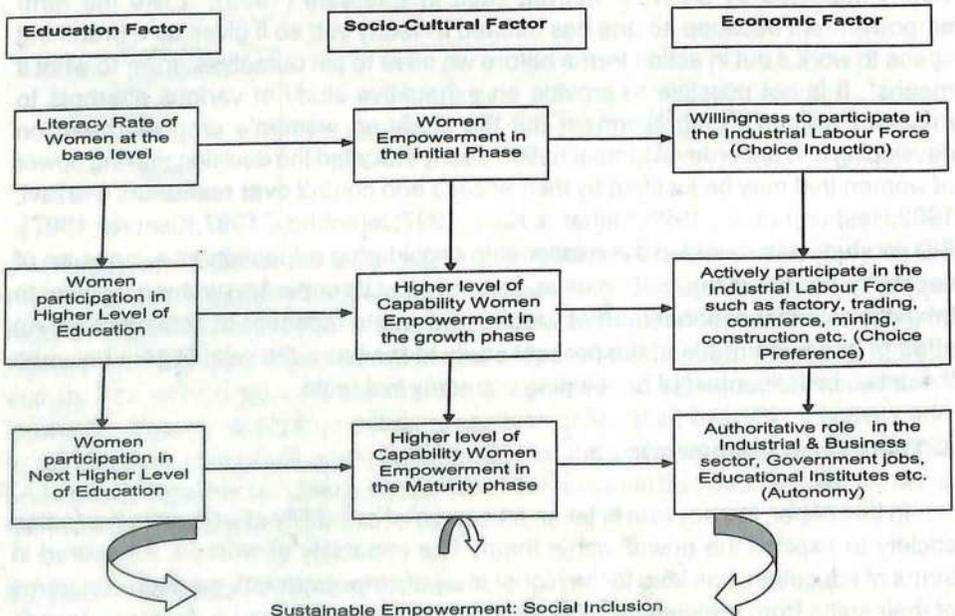


Fig- 2: Theoretical Framework of Women Economic Empowerment through Education

4. Research Objectives

An attempt has been made to study the impact of literacy of women on their economic empowerment in the last two decades in the Indian scenario and also to measure the shift in socio-cultural aspects in terms of their engagement in the job market. The objectives are summarized as follows:

1. To measure the impact of Female Literacy on the women empowerment that is manifested in the shift of the labour force from agricultural sector to the other sectors (industrial, Commerce, mining, construction, government etc) using the census data for 2001 and 2011.
2. To analyze the impact of the relative growth of female literacy with respect to male counterpart on the shifting of the female workers from agricultural sector to other sector

5. Research Methodology

5.1 Sources of Data

The researchers used the data from the two reports -Statistical Profile of Women Labour 2007-2008 & 2009-201, published by Labour Bureau, Ministry of Labour & Employment Government of India.

5.2 Data Collected

The exhaustive dataset indicating sex-wise distribution of workers and percentage of cultivators, agricultural labourers, workers in household industry and other workers by states—2001 census as well as 2011 census was taken to understand the women participation in agricultural sector and other sector. The type of other workers that came under this category included factory workers, plantation workers, those in trade, commerce, business, transport, mining, construction, political or social work, all government servants, municipal employees, teachers, priests, entertainment artists, etc.

The dataset containing literacy rate sex-wise in India by States as per 2001 & 2011 census has been taken as a measure of educational development of women. The state wise ratio of female and male literacy for 2001 & 2011 census has been calculated to measure level of empowerment as well as social inclusion.

5.3 Identified Variables

The literacy rate of women state wise for 2001 & 2011 census are taken as measure of capability enhancement of women leading to higher level of empowerment. So it would be taken as independent variable.

The ratio of women & male literacy state wise for 2001 & 2011 census are taken as relative increase in the capability towards empowerment and it is also taken as independent variable.

The percentage of women participation in different employment sectors, namely, agricultural and others (which include factory workers, plantation workers, those in trade, commerce, business, transport, mining, construction, political or social work, all government servants, municipal employees, teachers, priests, entertainment artists, etc.) state-wise for 2001 & 2011 census are taken as dependent variables to measure the consequences of the women empowerment.

5.4 Method

Regression analysis has been performed taking women agricultural labourers and other workers as dependent variable with women literacy state wise as independent variables separately for 2001 & 2011 census period. Further, regression analysis has been performed taking women agricultural labourers and other workers as dependent variable with ratio of women and male literacy as independent variable separately for 2001 & 2011 census period.

6. Results and Analysis

Case - I: Women literacy rate census data for 2001 & 2011 are taken as agency of women empowerment and are taken as independent variable. Regression analysis is performed to measure the impact of women literacy rate on women agriculture labourers and other workers separately.

The mathematical model of regression analysis can be expressed as follows:

Percentage of Female Participation in Agricultural Sector (2001)

$$= \beta_0 + \beta_1 \text{Female Literacy Rate (2001)} \dots \dots \dots (1)$$

Table - 1
Summarized Results of Coefficients of independent variables

	Constant	Unstandardized Coefficients	Standardized Coefficients	R-square
Female Literacy Rate (2001)	63.158	-0.661*** (0.202)	-0.495	0.245

*Dependent Variable: Percentage of Female Participation in Agricultural Sector (2011). The table shows regression results based on equation (1). The figures in the brackets indicate the standard error. *** indicates significance 1 percent level respectively.*

The mathematical model of regression analysis can be expressed as follows:

Percentage of Female Participation in Agricultural Sector (2011)

$$= \hat{\beta}_0 + \hat{\beta}_2 \text{Female Literacy Rate (2011)} \dots \dots \dots (2)$$

Table - 2
Summarized Results of Coefficients of independent variables

	Constant	Unstandardized Coefficients	Standardized Coefficients	R-square
Female Literacy Rate (2011)	102.424	-1.090*** (0.254)	-0.598	0.358

*Dependent Variable: Percentage of Female Participation in Agricultural Sector (2011). The table shows regression results based on equation (2). The figures in the brackets indicate the standard error. *** indicates significance 1 percent level respectively.*

The mathematical model of regression analysis can be expressed as follows:

Percentage of Female Participation in Other Sector (2001)

$$= \hat{\beta}_0 + \hat{\beta}_3 \text{Female Literacy Rate (2001)} \dots \dots \dots (3)$$

Table - 3
Summarized Results of Coefficients of independent variables

	Constant	Unstandardized Coefficients	Standardized Coefficients	R-square
Female Literacy Rate (2001)	-45.916	1.338*** (0.230)	0.711	0.505

*Dependent Variable: Percentage of Female Participation in Other Sector (2001). The table shows regression results based on equation (3). The figures in the brackets indicate the standard error. *** indicates significance 1 percent level respectively.*

The mathematical model of regression analysis can be expressed as follows:

Percentage of Female Participation in Other Sector (2011)

$$= \hat{\beta}_0 + \hat{\beta}_4 \text{Female Literacy Rate (2011)} \dots \dots \dots (4)$$

Table – 4
Summarized Results of Coefficients of independent variables

	Constant	Unstandardized Coefficients	Standardized Coefficients	R-square
Female Literacy Rate (2011)	-78.768	1.714*** (0.306)	0.698	0.487

*Dependent Variable: Percentage of Female Participation in Other Sector (2011). The table shows regression results based on equation (4). The figures in the brackets indicate the standard error. *** indicates significance 1 percent level respectively.*

The negative coefficients associated with female literacy rate in both the decades (2001 & 2011) indicate that the agricultural workforce has shown decreasing trend with increase in female literacy (Ref. Table - 1 & 2). Both the results are statistically significant also. At the same time, it is quite interesting to see that percentage of women labour force in other sector are positively related with women literacy rate in both decades (2001 & 2011) and here also, both of the results are statistically significant (Ref. Table-3 & 4).

The outputs are quite consistent with our proposed theoretical framework. Female Literacy would act as capability of women that would lead to empowerment. Now, the literate women are more willing to take their own decision of life and they shift their jobs from agriculture to other sector like industry, business, commerce & trade, government etc. In the other sector, they have a choice and they have the flexibility to choose among alternatives.

Case-II: The ratio between female literacy rate and male literacy rate, a variable named as literacy rate ratio (R01 & R11 based on census data of literacy for 2001 & 2011) is considered to be a measure of gender disparity literacy rate in favour of female and this ratio acts as a catalyst for social inclusion in respect of literacy. If it increases, the extent of social inclusion of women in respect of literacy increases. Regression analysis is performed to understand the impact of relative measure of female literacy with respect to male counterpart on the job pattern of the women namely, agriculture sector and other sector.

The mathematical model of regression analysis can be expressed as follows:

Percentage of Female Participation in Agricultural Sector (2001)

$$= \hat{\beta}_0 + \hat{\beta}_2 \text{Literacy rate ratio (2001)} \dots \dots \dots (5)$$

Percentage of Female Participation in Agricultural Sector (2011)

$$= \hat{\beta}_0 + \hat{\beta}_6 \text{Literacy rate ratio (2011)} \dots \dots \dots (6)$$

The outputs of the above mentioned regression analyses are represented in the Table-5.

Table-5
Summarized Results of Coefficients of independent variables

	Constant	Unstandardized Coefficients	Standardized Coefficients	R-square
Literacy rate ratio (2001) (R01)	86.515	-83.483*** (24.378)	-0.512	0.262
Literacy rate ratio (2011) (R11)	143.310	-143.473*** (36.456)	-0.565	0.319

*Dependent Variable: Percentage of Female Participation in Agricultural Sector for the decades 2001 @ 2011 respectively. The table shows regression results based on equation (5) & (6). The figures in the brackets indicate the standard error. *** indicates significance 1 percent level respectively.*

The mathematical model of regression analysis can be expressed as follows:

$$\text{Percentage of Female Participation in Other Sector (2001)} \\ = \hat{\beta}_0 + \hat{\beta}_7 \text{Literacy rate ratio (2001)} \dots \dots \dots (7)$$

The mathematical model of regression analysis can be expressed as follows:

$$\text{Percentage of Female Participation in Other Sector (2011)} \\ = \hat{\beta}_0 + \hat{\beta}_8 \text{Literacy rate ratio (2011)} \dots \dots \dots (8)$$

The outputs of the above mentioned regression analyses are represented in the Table-6.

Table-6
Summarized Results of Coefficients of independent variables

	Constant	Unstandardized Coefficients	Standardized Coefficients	R-square
Literacy rate ratio (2001) (R01)	-75.223	145.225*** (30.956)	0.633	0.400
Literacy rate ratio (2011) (R11)	-128.407	206.231*** (47.508)	0.603	0.363

*Dependent Variable: Percentage of Female Participation in Other Sector for the decades 2001 @ 2011 respectively. The table shows regression results based on equation (7) & (8). The figures in the brackets indicate the standard error. *** indicates significance 1 percent level respectively.*

The results clearly indicate that the job persuasion of the women in the agricultural sector is negatively related with the relative measure of female literacy and both the cases are statistically significant (Ref Table 5). At the same time, the involvement of women in the other sector in both the decades shows positive correlation with the literacy rate ratio in both the decades and here, also, both the results are statistically significant (Ref Table 6). Therefore, it can be concluded from the above results that increase in the extent of social inclusion of women in respect of literacy ultimately leads to women empowerment whereby the women can make their choices in regard to their livelihood.

The statistical analysis is quite consistent with our proposed theoretical framework. Incremental improvements in the female literacy with respect to male would lead to the shift of job from agriculture sector to other sector mainly industrial, business & commerce, government etc. in case of female. The more participation of women in a comparatively high skilled sector justifies both the women empowerment as well as social inclusion.

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Perceptions of District Education Officers towards Technology Based Capacity Building Interventions - A Study of U-DISE Training Programmes

Savita Kaushal
Anita Priyadarshini
Naveen Bhatia

The National University for Educational Planning and Administration (NUEPA) envisioned the Unified District Information System for Education (U-DISE) as a baseline for the effective and timely monitoring of various interventions made for the schooling system. As per the U-DISE 2015-16, there are total 15,22,346 schools imparting school education including all categories of schools from primary to secondary and higher secondary. The U-DISE is aimed at keeping a track of the resources, their utilization, deployment and replenishment. Over the years, the U-DISE database has successfully provided data in a comprehensive format and has been used as a planning tool. It has been the basis for decision making by policy makers. Under the U-DISE, every year data is collected from 1.5 million plus schools imparting education across the country. This data is collected at the local level with schools sending the data to the national level.

The District Education Officer (DEO) plays the key role in the planning, implementation and management of educational activities of the district. The DEO is responsible for ensuring that the targets set by the Government at the district level are achieved. The DEOs are also responsible for data collection and compilation for U-DISE. In order to maintain the quality of the data, it is important that capacity building of DEOs be undertaken so that an informed and empowered workforce with appropriate know-how is developed. Training also has to be provided whenever data capture formats of U-DISE are redesigned to accommodate new requirements in the school sector. Trainings also help to obliterate common errors and other issues at the data entry stage.

The uniqueness of the U-DISE programme has been the use of technology based interventions in capacity building in order to meet the massive training target number of data respondents while ensuring that no training transmission loss takes place. Over the years various technological interventions have been adopted for development of necessary understanding and skills amongst the large number of persons associated with the U-DISE data submission i.e. Block Resource Centre Coordinators, Cluster Resource Centre Coordinators and District MIS In charges from all states and union territories of India.

This study examines technological interventions adopted during the past eight years (2009 to 2016) to develop necessary understanding and skills among the

District Education Officers with respect to U-DISE Data Capture Format. The capability of the technology as a tool of capacity development has been analyzed not only in terms of the primary data obtained from the feedback of the trained District Education Officers but also secondary sources of data. The findings would help to further strengthen capacity building programmes for education department officials at state, district and cluster level.

Keywords: *Capacity Building Unified District Information System for Education, Data Capture Format, Technology.*

Introduction

India has one of the largest schooling systems in the world. As per the U-DISE 2015-16, there are total 15,22,346 schools imparting school education including all categories of schools from primary to secondary and higher secondary. Out of these, 14,49,078 are elementary schools. The massive scale of operations involves different resources such as teachers, students, support staff, infrastructure, materials and finances.

A baseline is always needed to check the functioning of any system and for timely monitoring of interventions made for its improvement. To create such a baseline for the education system in our country and to assess problem areas and points for potential improvement, the National University for Educational Planning and Administration (NUEPA) envisioned the Unified District Information System for Education (U-DISE).

U-DISE is an acronym for Unified District Information System for Education developed by NUEPA and MHRD. The mandate of U-DISE is to collect information from all recognized and unrecognized schools imparting formal education from class I to XII. U-DISE has been developed through the integration of the existing systems namely District Information System for Education (DISE) of the Elementary level and the Secondary Education Management Information System (SEMIS) of the Secondary level EMIS. It collects information on student enrolment and performance, infrastructure and teachers. U-DISE has the school as the unit of data collection and district as the unit of data dissemination. It is under implementation in all the districts of the country.

Utilization of U-DISE data has been made mandatory for evidence based planning under the Sarva Shiksha Abhiyan (SSA) and Rashtriya Madhyamik Shiksha Abhiyan (RMSA) programmes. The District and State SSA and RMSA plans are reviewed based on the information available from the U-DISE for the last data collection cycle and resources allocated during the review and appraisal of Annual Work Plans and Budgets. The system is capable of generating reports required to develop district and state level plans and are accessible through a user - friendly interface. Based on

this data, NUEPA annually brings out publications such as 'District and State Report Cards'; web-enabled 'Elementary Education in Rural and Urban India'; 'DISE Flash Statistics, including Educational Development Index'; and 'Elementary Education in India: Progress towards UEE; and Analytical Reports & Tables'. In addition the system generates the 51 reports used for State Elementary Education Plans. The reports are used extensively as a requirement of the annual planning process. The data are passed back to the schools in the form of school report cards. This data is useful for planning infrastructure and teacher deployment, for monitoring performance against plans and for tracking.

In view of the utility of the U- DISE in the planning, implementation and management of the education system of the district, it was felt necessary that District Education Officers (DEOs) should be trained at regular intervals. The DEOs play the most important role in taking the educational plan of the district forward. Further the DEOs have to ensure that other stakeholders are also familiar with the overall district and state plans. The importance of training for DEOs was also felt necessary due to the technical nature of the U-DISE data base. The data collection under U-DISE is done through the Data Capture Format (DCF) which contains static and dynamic data of a school. The static data involves information on the school location, type, management, and the level of school. The dynamic data covers information on the enrolments, repeaters. Schools are provided with a DCF that has the static data pre filled from last year and have to update the dynamic data. Regular training is necessary so that the DCF can be filled up accurately so that the veracity and quality of data can be maintained.

In view of the dynamic nature of the data, there was a felt need for regular and continuous training through the use of technology. The inherent capabilities of use of technology in training would help to ensure that all changes, modifications made in the U-DISE capture format can be reflected at a faster pace and in a more efficient manner.

The Study

The U-DISE data capture format is the means for collecting data on a variety of variables ranging from facilities in schools, profile of teachers, enrolment, information on various interventions like school grants, mid day meal, teacher grant to repeaters and examination results, etc. Over the years U-DISE data capture format has not only extended its scope and coverage but has also adapted to the changing needs and requirements.

As the data capture format seeks at obtaining information pertaining to a variety of variables, it is reviewed and revised every year. The U-DISE data reflects a multi-state data-collection process in which various types of officials are associated with the data collection. First, school headmasters answer a nationally-standardized

survey-questionnaire. Second, cluster officials examine the responses for completeness and accuracy. Third, district officials aggregate the data and check it for computational and consistency errors. Fourth, state-level officials conduct further checks. In a final step, each state is responsible for hiring external agents to conduct post-enumeration audits and cross-check data with site visits (Kaushal, 2010).

An important requirement towards maintaining quality of data is capacity development of officials involved at various levels. For example the cluster resource centre and block resource centre are decentralized agencies, which can monitor/train and act as resource points and they need to be strengthened and their efforts need to be utilized to the maximum extent in all activities related to the provision of data. In this context it is pertinent to point out that a Review Report (2014) on state level U-DISE in Bihar, Madhya Pradesh, Meghalaya and Odisha concluded that only the technical staff was able to use the system. Interestingly, these staffs were not able to verify, analyze or present data found in the system while all others relied on the MIS staff to assess data. The report consequently recommended that the U-DISE interface be made easier to integrate for technical and non-technical users and training workshops be organised. An important area of concern, apart from the vast number of diverse officials to be trained, is the apprehension in mind whether the capacity building provisions can reach at the remotest areas and also grass root level.

Keeping these factors (space, time, numbers and diversity) in view, an initiative was taken by NUEPA in the year 2009 of organizing capacity building programme by means of teleconferencing through EDUSAT. This was followed by Online YouTube videos, interaction on toll free numbers and also audio-video CDs and DVDs. In addition to this, technological inputs such as Online YouTube videos and video tutorial CDs and DVDs were also developed and used. The expectations at the end of the programme were that the participants would have a better understanding of the revised U-DISE Data Capture Format. It was expected that they would also realize the importance and the objective of collection of U-DISE data. After this capacity building, the participants were expected to fill up the U-DISE data capture format without any errors. They were exposed to the items in the U-DISE Data Capture Format. In addition, they were introduced to the changes brought in the U-DISE DCF, as per the changing data requirements with time.

The objective of this present study was to examine the perception of one level of officers namely District Education Officers (DEOs) towards the technology based interventions that were conducted as a part of their capacity building. The expected outcome envisaged was that this feedback would help to further improve the training programmes and thus contribute to strengthening the quality of data collected under the U-DISE in the instant.

Research Methodology

This study was conducted through survey method. An online survey was developed to gather data regarding the perception of District Education Officers (DEOs) towards their technical capacity building.

As with any research technique utilizing technology, online surveys have numerous advantages and disadvantages. On the positive side, online surveys tools speed up data collection and analysis processes. Web-based surveys are also often easier to complete than comparable paper-based questionnaires (Kaye & Johnson, 1999; Medlin, Roy, & Chai, 1999). E-mail surveys can also extend the reach of survey research to a diverse set of respondents while maintaining their anonymity (Sheehan & Hoy, 1999). At the same time, however, slow Internet connection speeds, lengthy procedures, unclear instructions, novel Internet tools, unsolicited respondents, and a general lack of time all negatively impact online surveys (Bosnjak & Tuten, 2001; Solomon, 2001). Moreover, e-mail solicitations tend to have many undeliverable addressees as well as respondents who are offended by perceptions of aggressive e-mail solicitation (Sheehan & Hoy, 1999).

Although these issues can be a problem but this was not so in the case of the present study as the researchers in the team had readily accessible online group of officials who had undergone capacity development through technology based interventions. The data was collected from these officials by means of online survey form.

The feedback form was prepared based upon Kirkpatrick's (1998) four-level model. According to Kirkpatrick (2001), the four levels of evaluation are: Level-1- Reaction: participant reaction or satisfaction ratings, Level-2 - Learning: participant change in knowledge, skills, and attitudes, Level -3 - Behaviour: participant change in job behaviour and Level-4 - Results: the final results in terms of quality, quantity, safety, costs, profits, and Return on investment (ROI). In the context of the present study, at Level-4, the final results in terms of two aspects only i.e. quality and quantity was taken into account.

As regards the sample, the total database of over 7000 email IDs of the trainees was available to the researchers. However in view of the limited nature of the study, only District Education Officers who had undergone capacity building in DISE data capture format in the technology based programme were selected for this study. The email IDs of District Education Officers (Education Officers in case of small Union Territories) were selected by means of stratified random sampling method. The sample constituted at least one official from each state and union territory. The total number of states and union territories covered was 36. The survey was conducted in the month of January 2017. The total number of respondents was 100 DEOs.

The design of the online survey form was sharp and focussed. It was felt that DEOs should not be burdened with a long and complex form. The items of the form were of multiple choice types so that filling up the form was simpler. A short form was also felt necessary so that problems of internet connectivity in far flung areas would not come in the way of filling an online form.

Review of Capacity Building Programmes for U-DISE using Technology based Interventions

NUEPA has been conducting training programmes for U-DISE using both face to face as well as technology based interventions. The trainees for such trainings have been of different levels and can be broadly divided into two categories i.e. institution (school) and area level functionaries (such as district education officers, block education officers). Diverse category of officials from schools under SSA and RMSA were beneficiaries of these capacity building programmes. The participants included Additional Chief Educational Officer (ACEO), Assistant Block Resource Centre Coordinators (ABRC), Assistant Elementary Educational Officer (AEEO), Assistant District Project Officer (ADPO), Assistant Project Officer (APO), Block Elementary Education Officers (BEEO), Block Resource Centre Coordinator (BRCC), Block Resource Teacher Educators (BRTE), CEO (Cluster Education Officer), Cluster Resource Centre Coordinator (CRC), Data Entry Operator (DEO), District Education Officer (DEO), EMIS Coordinator, Head Master (HM), Principal, Section Officer (SO).

The number of beneficiaries of the training through technological interventions is as follows:

Table -1
Capacity Building using technological intervention by
Teleconferencing through EDUSAT

Date and Year	Number of Participants
09 September, 2009	4790
21 September, 2010	
27 September, 2010	
07 September, 2011	4811
14 September, 2011	
07 September, 2012	5012
14 September, 2012	
04 September, 2013	5134
06 September, 2013	

Source: www.dise.in, Kaushal, S. (2011a), Kaushal, S. (2011b).

Table-2
Capacity Building through YouTube

Content	Total Views*
Instructions on How to use Web Portal	51,660
Instructions and Presentation on How to use/operate Web Portal - Part 2 of 2	7,420
Instructions and Presentation on How to use/operate Web Portal - Part 1 of 2	4,378
Instructions for filling Student DCF, 2016-17(Hindi Language.)	3,242
Video, on Instructions for filling Student Data Capture Format for the year, 2016-17 (English Language)	10,537
Questions & Answers: Student Data Capture Format, U-DISE, 2016-17.	4,535
Description of Student Data Capture Format. (Hindi)	4,866
Description of Student Data Capture Format (English)	9,833

*as on 28th Feb 2017

Table-3
Participation in Regional Technical Workshop

Year	Number of Participants
2009	533
2010	559
2011	579
2012	615
2013	641
2014	652
2015	683
2016	770

Table - 4
Capacity Building through Interaction on toll free numbers

Calls on Toll Free Numbers :About 150 calls per day
Capacity Building by audio video CDs and DVDs All 680 districts are provided the CD/DVD/Pen drives having the videos

Discussion on the Findings of the Study

The analysis of data was conducted based upon the programme content, level of engagement with the participants, popularity of the technological intervention and the desire of the participants to re-enrol for further training in the future. The data analysis revealed the following:

Programme Content and Transaction

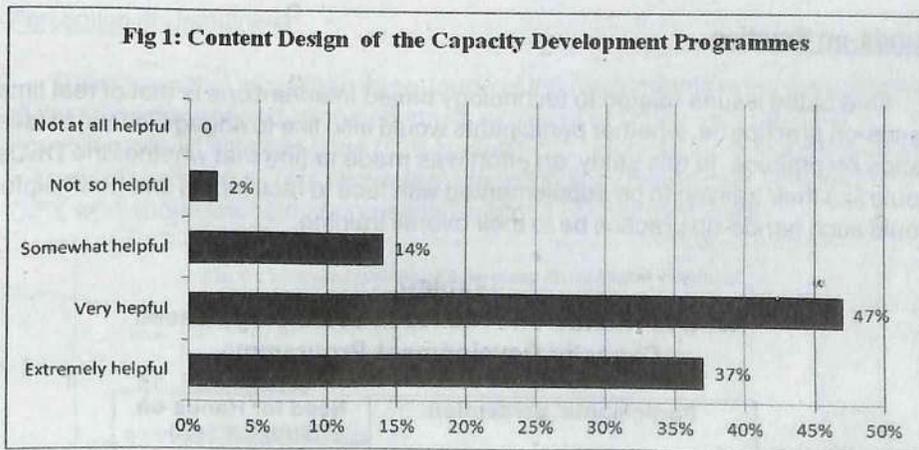
The perceptions of the participants regarding the programme content and its transaction were assessed in terms of three aspects, namely the content design, presenters and usefulness of the Hands On practice sessions supporting such technology based interventions.

Content Design

The content design (in terms of time allocated thoughtfully to the subject matter and relevance) of the capacity development interventions were perceived to be either extremely helpful (37%) or very helpful (47%) by most of the respondents. But a few differed in their view as they found it either somewhat helpful (14%) or not so helpful (2%).

Table-5
Content Design of the Capacity Building Programmes

Participants' Perception	Responses (%)
Extremely helpful	37
Very helpful	47
Somewhat helpful	14
Not so helpful	02
Not at all helpful	-



Interaction with Participants

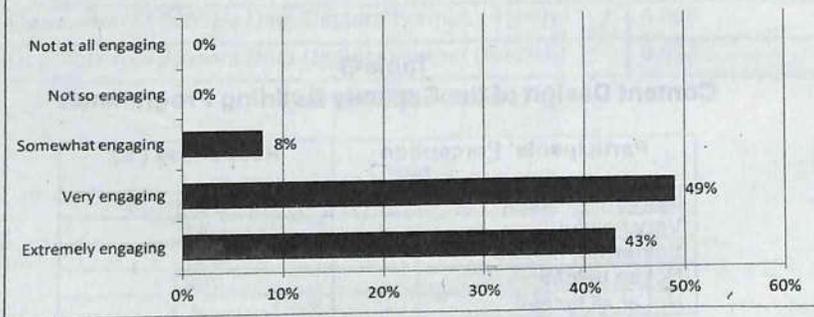
It is seen that a programme is considered successful when the presenters are able to engage with the audience. Hence the need for interactive programmes is very important. In this case, majority of the respondents (92%) found presenters extremely

engaging or very engaging. The remaining few (8%) found them to be somewhat engaging.

Table-6
How Interactive were the Presenters?

Participants' Perception	Reponses (%)
Extremely engaging	43
Very engaging	49
Somewhat engaging	08
Not so engaging	-
Not at all engaging	-

Fig 2: How Interactive were the Presenters ?



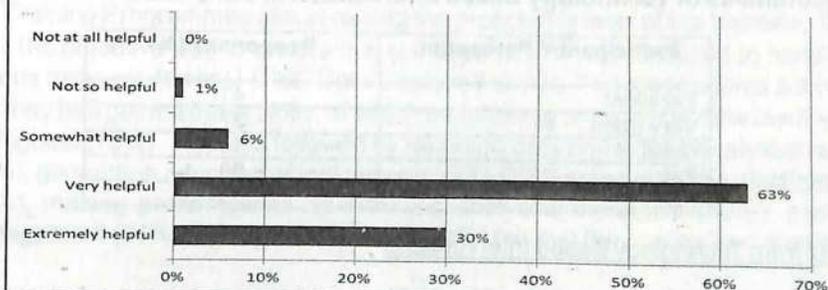
Hands-on Practice

One of the issues related to technology based interventions is that of real time hands-on practice i.e. whether participants would also like to engage in face to face hands on practice. In this study, an effort was made to find that whether the DEOs would like their training to be supplemented with face to face inputs and how helpful would such hands-on practice be to their overall training.

Table-7
Need for Hands-on Practice in Technology Based Capacity Development Programme

Participants' perception	Need for Hands-on Support (%)
Extremely helpful	30
Very helpful	63
Somewhat helpful	06
Not so helpful	01
Not at all helpful	-

**Fig 3 : Needs for Hands-on Practice
in Technology Based Capacity Development Programme**



In the present study, it was seen that the respondents perceived that if such technology based interventions are supported by hands-on experience then such kind of a support is either extremely or very helpful (93%). A very few regarded it as somewhat helpful (6%) or not so helpful (1%).

Usefulness of Technology Based Interventions

Perception regarding the usefulness of these interventions was explored with respect to the rating of the interventions in terms of usefulness, type of benefits and also skills perceived to be accrued from them, as well as the type of technological intervention which was most useful and whether the participants would like to participate in such programmes in future.

Perception of Usefulness

It was seen that more than three-fourth of the respondents rated the usefulness of the technology based interventions as excellent (41%) or very good (37%). The remaining rated it either as good (13%) or fair (9%). None of them found it to be poor in terms of usefulness. This shows that the technology based interventions in the U-DISE workshops are being appreciated in terms of their usefulness.

Fig 4 : Usefulness of the Technology Based Interventions

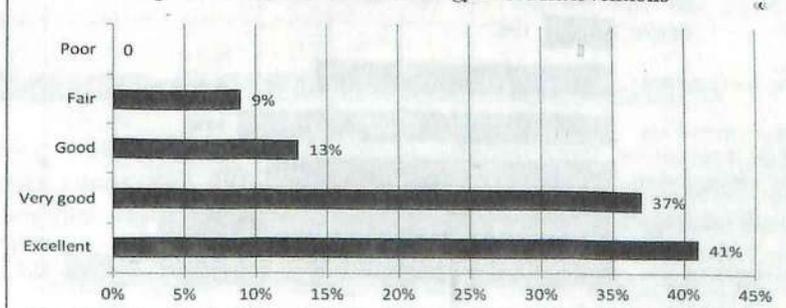


Table-8
Usefulness of Technology Based Intervention in the U-DISE Workshops

Participants' Perception	Responses (%)
Excellent	41
Very good	37
Good	13
Fair	09
Poor	-

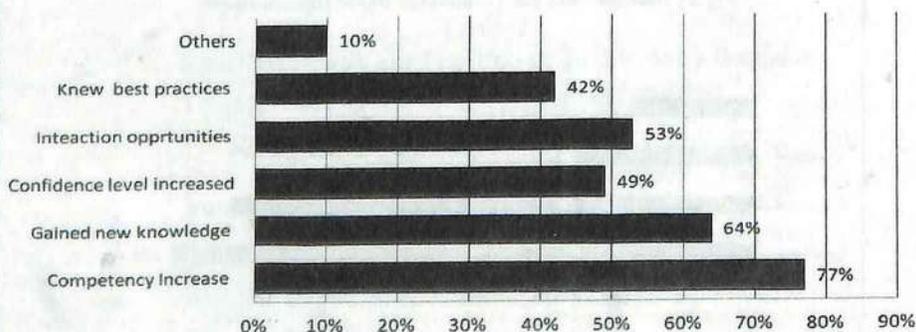
Benefits from Technology Based Interventions

The respondents cited many reasons underlying this fact to show that they had gained benefits from these interventions. They gained in terms of increase in their competency at their workplace as it was related to their field of work (77%), gaining knowledge about U-DISE (64%). Some DEOs felt that these intervention provided them a good opportunities to interact and share views with other state, district level officials (53%), increasing their confidence level (49%), know best practices (42%) and other reasons such as development of understanding and appreciation of the need for accuracy and timeliness of the U-DISE data (10%) .

Table-9
Benefits from the Technology Based Capacity Development Interventions

Benefit from the Interventions	Respondents (%)
Competency Increase	77
Gained new knowledge	64
Confidence level increased	49
Interaction opportunities	53
Knew best practices	42
Others	10

Fig 5 : Benefits from the Technology Based Capacity Development Interventions



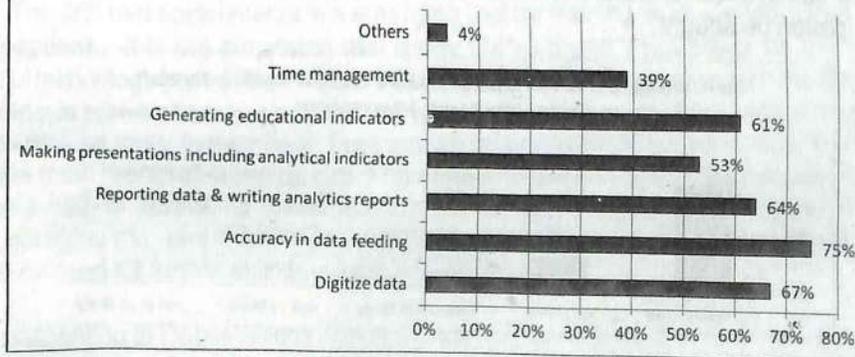
Skills Enhancement

Training Programmes aim at raising the proficiency level of the trainees. In this case the objective was to ensure that participants are well equipped to handle the various tasks related to U-DISE Data Capture Format. The respondents submitted that they had gained many skills, of which maintaining accuracy in data feeding was the highest (75%). This was followed by reporting data and writing analytical reports (64%), generating educational indicators from U-DISE data set (61%), digitizes data (57%), making presentations by including analytical indicators (53%), and time management (34%). A very small number (4%) felt that they could feed data faster.

Table-10
Skills Enhancement from Technology Based Interventions

Skills Attained	Responses (%)
Ability to digitalise	57
Maintaining accuracy in data feeding	75
Reporting data and writing analytical reports	64
Making presentations by including analytical reports	53
Generate educational indicators from U-DISE data set	61
Time management	39
Other	04

Figure 6 : Skills Enhancement from Technology Based Interventions



Usefulness of Different Kinds of Technology Based Interventions

During these trainings, a number of different kinds of technology based interventions were used. As regards the technology based interventions, it was seen that nearly three-fourth of the respondents (74%) found YouTube videos most useful for U-DISE capacity building, followed by Audio/Video Tutorial CDs/DVDs (41%), Edusat (18%) and interaction on toll free number (13%). Some (9%) found the recorded Edusat programmes available on the website as very useful.

Fig 7 : Usefulness of Different Types of Technology Based Interventions

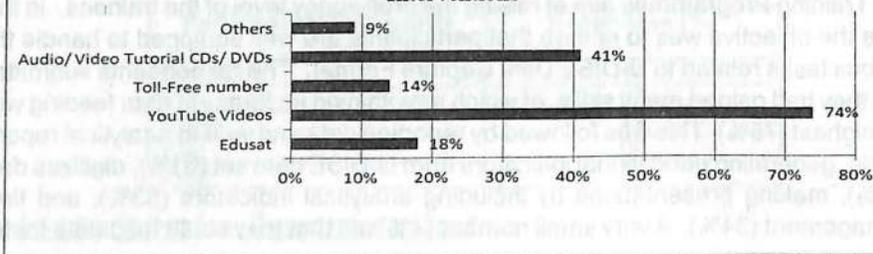


Table-11
Usefulness of Different Kind of Technology Based Interventions

Technology Based Intervention	Most Useful (%)
Edusat	18
YouTube videos	73
Interaction on toll-free	13
Audio-video tutorial	39
Other	09

Participation in Future Trainings

The dynamic nature of the U-DISE demands that trainings be conducted on a regular basis. It was therefore felt that feedback of participants towards their future participation be sought.

Fig 8 :Willingness to Participate in Future Capacity Building Through Technology Based Interventions

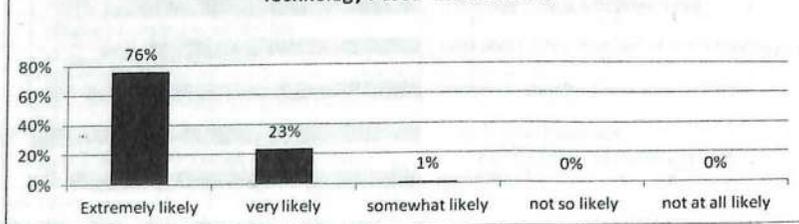


Table-12
Willingness to take Benefit of Continuous Technology Based Interventions

Willingness of Respondents to take Benefit	Number of Respondents (%)
Extremely likely	76
Very likely	23
Somewhat likely	01
Not so likely	-
Not at all likely	-

It was seen that majority of the respondents (99%) expressed their interest in taking benefit of such intervention (extremely likely or very likely) again in the future. This indicated that the participants found the trainings useful and worthy of continuous involvement.

Conclusion

The findings suggest that the technology based capacity development interventions were very useful. The content design of the technology based capacity development interventions was helpful at varying levels. The satisfaction levels were high as all the respondents regarded it as excellent, very good or good. The participants saw immediate benefits of the workshop in their practical life in the following order of decreasing priority: Increase in competencies, gain in new knowledge, opportunity to interact with the officials at different levels, increase in confidence level, and get to know best practices.

An interesting outcome was that the participants' feedback upon the technology based intervention was excellent, very good or good in term of usefulness. And yet they expressed that such sessions should be supported by Hands On practical sessions. It is possible that the comfort of a human interface remains important and therefore face to face trainings should also be conducted on a regular basis. It is suggested that blended mode of training with a mix of face to face and technology based interventions be designed to obtain best results.

The fact that social media is a emerging tool for training is also evident from the perceptions. It is not surprising that many (74%) found YouTube to be the most useful technology based intervention. These results are in congruence with the findings of various researchers such as Liu (2010) who found that YouTube was one of the most popular tools. In their work, Fralinger and Owens (2009) too confirmed YouTube as the most preferred learning tool. The ease of internet access in remote areas will further help in facilitating dissemination of training materials. The Government is encouraging the use of MOOCs for skilling as well as online platforms. These may also be used for further skill development purposes.

According to Debra Wilcox Johnson, learning new behaviour or enhanced skills is the most powerful outcome of any training. As per the Training Magazine (2000), the most prevalent skills taught online were technical or information technology related. In congruence with the above mentioned thoughts the respondents too perceived that they gained in multifarious ways from these interventions. They were more competent at their workplace, gained new knowledge, and increased their level of confidence, became more interactive. Knowledge gained helped participants perform their jobs better while using the database. The participants were clear about the skills gained as they cited that they were able to digitalize data, maintain accuracy in data, analyze data, prepare analytical report, make presentation using analytical

indicators, generate education indicators using U-DISE data and also do time management.

In conclusion, it may be reiterated that the U-DISE is a reflection of implementation of key aspects of various school education programmes such as of Right to Education, Comprehensive and Continuous Evaluation of Children, improving access to education for weaker sections and providing facilities to Children with Special Needs. It is therefore important that the high quality of data is maintained. The perceptions of DEOs in terms of benefits gained through skills learnt indicates that the technology based capacity development interventions have contributed significantly towards maintenance of the quality of data. The extended use of such the technology based interventions will strengthen capacity building programmes and will also help to make U-DISE a valuable tool for policy makers and planners of school education in India.

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Innovation and Opportunities to Marginalized Groups in India: Experiences of Community Learning Centre

(A research study sponsored by the Research & Development wing of University of Delhi)

**Nitish Anand
Rajesh**

The term marginalization refers to individual or groups who live at the margin of society. The marginalized population is known as the worst affected people throughout the world who are always experiencing one or the other kind of problems in their day to day life. Marginality depends upon control over their lives, and the resources available to them. It effectively pushes these groups of people to the margin of society economically, politically, culturally and socially following the policy of exclusion. It denies a section of the society equal access to productive resources and avenues for the realization of their productive human potential and opportunities for their full capacity utilization. This pushes the community to poverty, misery, low wage discrimination and livelihood insecurity. As the objective of development is to create an enabling environment for people to enjoy a productive, healthy, and creative life i.e. development of society based on social justice.

It is widely acknowledged that education has an important role to achieve a greater degree of social justice. Education is the key to fostering the just society. However, a large number of the population are still excluded from the educational system and hence cannot participate meaningfully in the economic, social, political and cultural life of their communities. It is also associated with poverty in the nation. Although the institutionalized way of education has limited capacities to intake the learners for training and also it largely neglect the series of the community who did not take education with respect to time or those who did not prove themselves in throat cut competition or the neo-literate. With the development of Justice and Equality in the neo-colonial world with new world institutions like United Nation advocated the decentralization of Education system for all in the world and provided it as the basic human right to all over the globe and ensure that in geopolitical world each and person could get minimum education. With the development of non-formal education system has availed the hope for the learners of all types to get learning opportunities, India is also an active member of UN, which abide the all the laws and policies to their national policy, Development of Community Learning centers (CLC) is understood as the one of the many effects of decentralization of education in India, CLC is the place where any kind of illiterate, neo-literate can approach to impart the learning, which also understands as the key for providing the learning experiences and Vocational skill for the sustainability in society. Basically, it advocates for the lifelong learning and acts as a problem solver for the community which has to remain behind in the race of Education i.e. the vulnerable communities.

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According to the United Nation a Community Learning Centre (CLC) is a local educational institution outside the formal education system, for villages or urban areas, usually set up and managed by local people to provide various learning opportunities for community development and improvement of people's quality of life. The aim of a CLC is to empower individuals and promote community development through life-long education for all people in the community, including adults, youth, and children of all ages. The main beneficiaries of a CLC are people with fewer opportunities for education, for example, pre-school children, out-of-school children, women, youth, and the elderly. They are principally focused on literacy and continuing education in support of Education for All (EFA). However, the community learning center in India has amply created the environment for the optimizing the opportunity for serving the best to the marginalized section of that community, but the method and process have been the traditional one which is less innovative and effective as compare to the other formal institution so, questions comes what kind of innovation is needed for the CLC to enhance the opportunities for the marginalised section of population? Now the question comes what is innovation? Innovation is defined as "the process of making changes to something established by introducing something new." It applies to "...radical or incremental changes to products, processes or services." Over the years there have been many changes in the way education is designed and delivered in parts of the world. (Olabisi Kuboni n.d.) and Community Learning Center has also evolved as the center for deliberation to the vulnerable section of the community

To understand the above-discussed problems in deep this research study is conducted under the certain objectives, these are –

- The role of community learning center for the development of opportunities to the marginalized section in India.
- Innovative practices in Community Learning Center (CLC) to the welfare of vulnerable section of the community.
- Opportunities provided by the CLC to the welfare of marginalized section of community.

Like any other research study, the very research also adopted the certain methodology, where Delhi was chosen for study, under it five community learning center was selected by the purposive sampling method for greater representativeness of data, at the same time schedule was used for interview, in general mix method used for data collection from 100 respondents (70 learner and 30 trainers) chosen randomly .where most of the respondents were illiterate and neo-literate.

CLC Organization, Management, and Objectives in India

CLCs have come into existence largely at the initiative and with the support of local community groups, non-governmental organizations (NGOs), external donors

and/or development agencies. In certain cases, they've been created through support from local and national government authorities. CLCs are principally managed, supervised and financed in collaboration with local, national and external support, however.

In India, CLCs are principally initiated and supported by local communities and NGOs with assistance from aid agencies, donors and development partners. Local management and executing bodies have taken up responsibility for organizing and overseeing CLC operations with modest start-up financial contributions from local community members. In certain cases, they generate resources by organizing income-generating activities such as collecting voluntary contributions, receiving charitable funds from philanthropic sources charging CLC membership fees. CLCs that principally focus on literacy and non-formal education also sometimes receive financial assistance from the government. CLCs that are organized and supported by leading NGOs who are working the Corporate Social Responsibility.

The community learning centers have had a considerable positive impact on the promotion of literacy and continuing education. UN also recognized the rich potential of CLCs in their Education for All (EFA) campaigns, literacy promotion, and community development activities and, thus, consider CLCs an important part of their strategies for reducing illiteracy and attaining EFA.

The various CLC activities for development of the community people fall into the following areas:

- (a) Functional literacy and continuing education: diverse learning opportunities; remedial measures for the vulnerable population
- (b) Skill development and human resource development: training in livelihood skills, income-generating activities (IGA) and leadership.
- (c) Community development services: exchange of ideas; activities for community development, resource mobilization; discussion of issues related to family and community; venue for extension and development service providers
- (d) Awareness and cultural development: raising awareness about education, health care, family planning, human rights, gender, and environment; socializing and recreation.

Innovation and Education for Marginalized groups

Deprived/ Marginalized Groups happen simultaneously at the micro and macro levels i.e., individual, group, community and global level where accessing of education are known as the significant contributor for this misery. India still, has the highest number (300 million) of illiterate persons in the world, who never got an opportunity to go to school, it may be due to no availability of school/other educational institution, but the development of Adult education, so the community learning centre helped in recent days to bridge the gap in education.

Today, technology is a significant driver behind all the major changes in education, where at the one end it facilitates designing and delivery at the other end it provides flexibility to the learner with respect to time, place and distance. With the technological advancements, it is transforming the traditional education process as well as providing the learning experiences and livelihood skill to the billions of people who remain under-served in a rapidly developing world.

Technologies that are now available to help to increase the potential to learners and educators with the development of information and communications technologies (ICTs), it does not replace all previous way of education, but it has provided additional possibilities for learner by enhancing the support, interactivity, and access to education.

With the emergence of education facilitating technology like smartphones, eBook readers, 'Podcasts' and 'Vodcasts', Internet and low-cost computers, as well as solar electricity, cell phone access, and other technologies provide the opportunity to assist the individuals and communities in places under-served by traditional educational institutes. Technology and other innovations enable educational design and delivery to be adapted to the needs and environment of students enrolled in Open and Distance learning (ODL) or non-formal learning and traditional educational programs. Thus, technology can also help programs shift to a 'learner-centered' approach to education.

Community learning center for Education & Development

The challenge of closing the ever-widening gap between the haves and have-nots also the education, to bridge the gap rapidly it is needed to view education from a new perspective where innovation is key to achieve the targeted and this may include making use of affordable and accessible technologies to expand access to education. It may also require other innovative process or service strategies that do not rely on technology. For this it is required a shift in focus, to target educational and training programs to align more closely with what people identify as their most urgent needs where the community learning center in almost every society may fulfill the need provide the non-formal way of education according to the need of the community, with special focus on most vulnerable marginalized groups to solve their problems.

Encourage the unconventional education through community learning center by adoption of innovation is one of a number of solutions, that can meet the challenges like improved efficiencies, lower costs, increase accessibility, and greater success in achieving development goals through education in the need of hour for the nation, where encouragement of education center with proper appropriation of technology can be the strong solution.

Major findings and Discussion- Vulnerable Population in the CLC

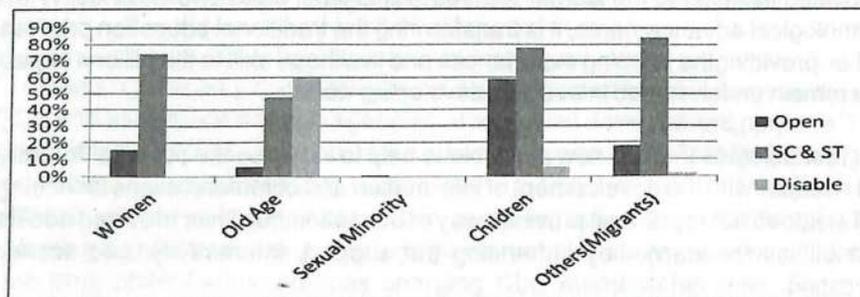


Figure- Vulnerable population joining the CLC

During the study it found that vulnerable population that are involved in CLC 16% are the women among of which 74% belongs to SC & ST, 6% Elderly population among of which 48% are SC & ST and 60% of their population is disable, where less than one percentage population of Sexual Minority, 59% children among of them 78% are SC & ST and less than 6% are disable, where 18% are migrants among of which 84% are SC & ST and less than 2% are disable. The data shows that the CLC represent the different kinds of the vulnerable population.

Training of the trainer in the CLC-

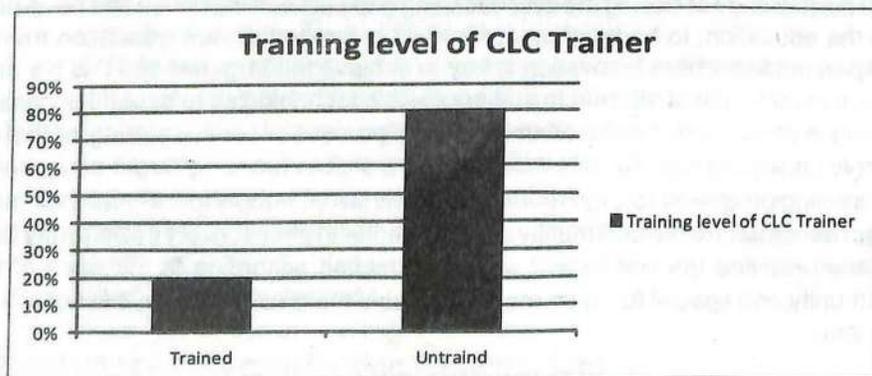


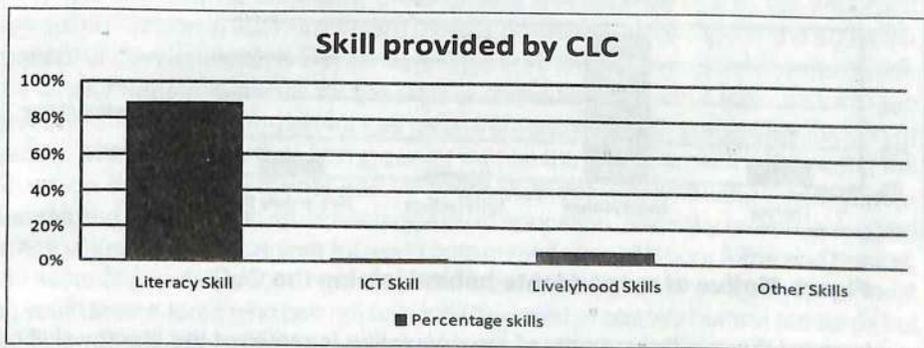
Figure- Training level of Trainer in CLC

If we talk about the innovation in CLC it became important to understand that whether the trainer which provide the training to the recipients in CLC are compatible with innovative practices, where training became the important intervention for enhancement of compatibility to the trainers who further add-on and provide the innovative intervention for the learners in community learning center.

Where it was found that 80% transfer have no training to deal with the regular work of community learning, they have no training like B.Ed. and JBT training to provide the effective learning experiences to learners.

Population gating the various type training in CLC-

Figure- Types of skill training provided in CLC



89% population in CLC are getting the Literacy skills i.e. reading, Writing and basic thematicskill,where very fuel, 2% population are getting ICT skill other than literacy,where 7% population are also acquiring livelihood skill like, carpentry, beautician and likewise which shows that the skill that CLC is providing is not much innovative and less demandable in market

Uses of Smart technology for training in community learning Center

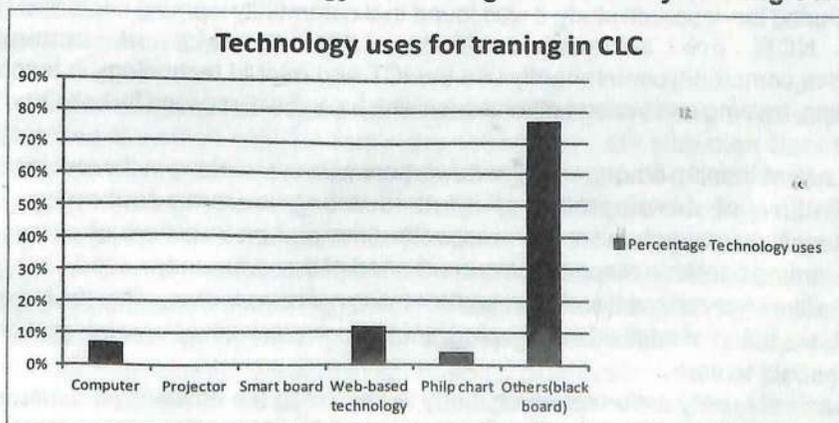


Figure- Technology uses during Training in CLC

From the study it is found that the technology uses the community learning center for training is largely traditional in nature, it may bedue to less trained trainers

are unable to use it frequently, where 77% uses the blackboard only and 7% there is uses of computer where 12% uses of web-based technology and 4% chart during training, there are no projector and smart board for providing the training in CLC.

Motive behind the Vulnerable Population to Join the Community Learning Center

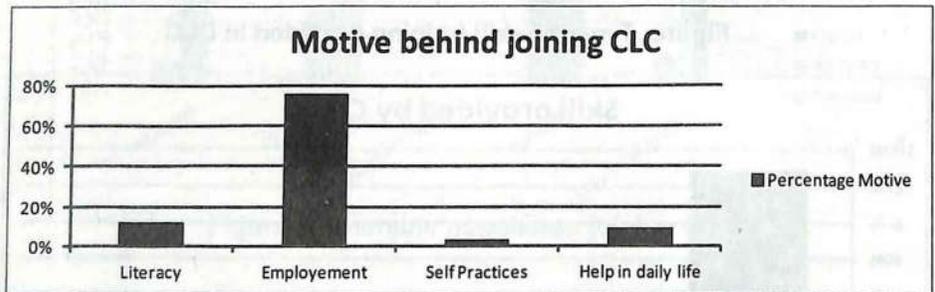


Figure-Motive of respondents behind joining the CLC

However there is the majority of the population is provided the literacy skill by the CLC but it was a surprising when it is asked to learner about the motive behind joining the CLC, where 76% said they have joined it for future employment, 9% joined it to get rid the daily hassle of life. Where 12% joined it to gate literacy skill. Which shows that learner wants CLC to act as a platform from where after completing the course they could gate earning capabilities where 3% said after successfully completion they would prefer to impart same skill to others.

During the research study, it was found that community learning centers in Delhi and NCR are seriously suffering due to lack of innovation practice, community centers hardly use the ICT and related technology in teaching, learning, training and various other issues which can be discussed by bellow points-

- Lack of training among volunteers/workers who are working in the community.
- Failure of development of adult teaching learning technology and sensitization mechanism with respect to time and also a failure of community learning center to respond the current need of the community.
- Failure of government and other implementing agencies in organizing, development & execution of adult education program through community learning center with respect to time.
- Lack of quality action research study to improve the efficiency of community learning center with respect to time.
- Beside it resource allocation, which is defacing the community engagement process for the empowerment of vulnerable population.

Community learning center is known as the one the important center of learning

and skill training for needy one, it is one, that known for rendering the service for the vulnerable section of community and help to bring on the front stage of development process but CLC has failed to attract the various marginalized section i.e. Transgender and sex workers. Today we are in the arena of knowledge society where the community learning centers are the important structure, by virtue of it; at any age and time one can come to prolong its lifelong learning instinct.

In the neo-colonial economy, development has become one of the important topics of discussion in the world where Indian constitution also supports the equitable concept of development i.e. Sustainable development but its implementation policy has largely remain mockery for the people of the land. As education and training have become the most important key for the emancipation of vulnerable section of society, where community learning center can be the main center for delivering the education through non-formal and informal setup, especially for the illiterate, neo-literates and persons with rudimentary level of education. Recently India has evolved as one of the important centres for world both in the terms of labour force and market, and according to the various report of world bank & UNO the very country have most lag youth labour force who can not only fulfil the need of country human resource but it will also fill the need of world human resources demand of skill labour force. where community learning center can be used as the platform for providing the vocational training/skill training and further accreditation. It will help the country to solve the problems like Poverty reduction by increasing per capita income with purchasing power. So it is need of the hour to give proper attention towards community learning center and take it as an opportunity to involve the community in the reconstruction of the country for the development of learning society and knowledge economy.

Opportunities

Linkages between CLC & Jan shikshan Sansthan

The Community learning center in India works largely on the same concept as Jan Shikshan Sansthan (JSS), earlier the scheme of Jan Shikshan Sansthan crafted by the government of India has been one of the important centers for the development of marginalized section, JSS are the institutes of Peoples education focusing on the poor, the illiterates, the neo-literates, the underprivileged and unreached population, JSS are a unique institution which not only to provide just skill development but link literacy with vocational skill and provide large dose of life enrichment education (LEE) to the people. But in recent time role of these kind of institution for empowering the vulnerable community are shrinking to certain extent, which further pulling the marginalized section from socio-economic justice, during the study it has found that due to weak policy and lack of innovation, development, and integration of technology, welfare of marginalized section suffered most. Where the limiting the role of community learning center and not giving the main importance on policy level has led the worst situation for the community which has been benefited by the various activity of community learning center. recently lack of funding these center has to make suffer

to the needy one, with weak networking between the governments, corporate, NGO and various likewise institution has created the serious stagnation in cohesive effort for the welfare of marginalized section of community ,further lack of ability to use the resource in an effective manner, lack of infrastructure and allotted space is also creating the difficulty in development of continuing education and for future sustainability for community.

Actually CLC is a multipurpose institute of the people, by the people, and for the people to promote learning new knowledge, skills and behaviors to improve people's quality of life and living standard, but due lacking in various front it has posed quality threat, where the linkage between the CLC and JSS may lead to the good initiatives in crisis for the welfare of vulnerable society.

Lifelong Learning for Community

The commentary on Goal 3, related to lifelong learning, held that 'All young people must be given the opportunity to gain the knowledge and develop the values, attitudes, and skills that will enable them to develop their capacities to work, to participate fully in their society, to take control of their own lives and to continue learning' (UNESCO, 2000, 12). In the commentary on literacy (Goal 4), the Dakar Framework document appropriately noted that there were some 880 million people who could not read or write among of them two-thirds are women, yet, the education of adults,remain at the periphery of national education systems and budgets' (UNESCO, 2000, 13),among of them most of the population are vulnerable one wich is needed to add the process of lifelong Learning (LLL) to provide them livelihood opportunity and coping capacity. one of the major thing which attract the learner towards the LLL is, it helps to development of competency for sustaining in the global society where any members of the community at any place,at any time,in any age group can access the learning which is outcome oriented and help vulnerable members of community to solve their instant problems themselves where the community Learning Centre can be the center for lifelong learning for the vulnerable.

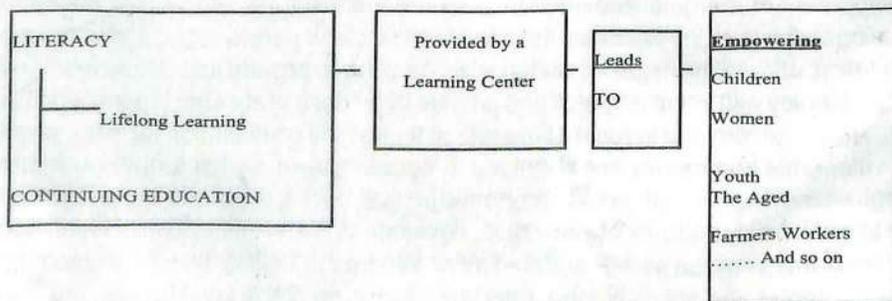


Figure - LIFELONG LEARNING MODEL FOR COMMUNITY

Engagement of Adult Education Department and University with Community

Adult education center/cell/Department which was created during 1976-1982 with a specific motive to enable the adult learner and to help them so that they could become a viable citizen of the country, was one of the important steps to prove the justice to the vulnerable section of the community by bridging the gaps. In 1977 UGC also gave the directive to all the departments of the University system where it said that extension is the third dimension besides two i.e. teaching and research. But hardly any department expresses it and it is lost somewhere, but during the development of 11th and 12th plane the very things that have developed as the Lifelong Learning which has changed the whole process of acting and thinking in a new dimension where the university of Delhi started M.A in Lifelong Learning & Extension to generate the trained human resources and act under the new vision i.e. VISTTAR by Department of Adult Continuing Education and Extension (DACEE) University of Delhi. VISTTAR is an attempt to integrate community with university through extension and outreach activity. 'Vistaar' – means extension, is a perfect blend of theory with practice whereby students get practical exposure of guidance in their chosen area. The main purpose of this initiative is developing and offering need-based Lifelong Learning / Education programmes for students and members of the marginalized community. The Vista project not only orients the students with the skills required in community development but would equally sensitize them towards various issues of these marginalized groups of the society. The critical component of Vista is the stakeholders of Adult education i.e. the students (Undergraduate, postgraduate, research scholars, counseling students and professors) and the community, although extension work under the visitor has been the future of Adult Education of department, where the students of DACEE can be invested these community learning center after the theoretic building by department, it will somehow solve the trained trainers problem to CLC on the other hand field exposed give the hand on experiences but, it is equally important to bring other Department of the University under the leadership of "Adult Education Department" to render the services and training for the vulnerable community. It will help to strengthen the institution to institution coloration for the development of community engagement and long-term planning.

Despite a half-century of discussion and discourse aimed at innovation and progress, traditional paradigms and ways of thinking persist in education. The Education for All (EFA) movement, launched in 1990 at the World Conference on Education for All in Jomtien, Thailand and followed up by the EFA Dakar Framework for Action in 2000 with the adoption of six global education goals, which are in themselves a remarkable initiative of the international community is a testimony to the endurance of conventional, but the narrow perceptions of education and learning still prevail. India is still searching a new way to achieve total literacy it is only due to the lack of intent of adopting the innovation technique for mass mobilization and diminishing the role of community learning and participation on all level.

The very research study has shown that the condition of the community learning center is not up to the mark, the allocation of resource either economic and human resources are not sufficient and trained enough to perform the huge task of empowerment, the weak link among the community and policymaker still prevail which is deteriorating the situation of vulnerable population day by day. Lack of development, innovation, and implementation of technology in India is creating the big wall for the assimilation of the larger population of the vulnerable community. Lack of networking between the institutions who work for these kinds of the population.

The study found that innovative practices and adoption of smart technology for the quality output is need of hour for the CLC, as recent government policies priorities to revive the ruler population & marginalised community where strengthening the CLC and same type of institutions, which is working for the community at grass root level may solve the problems for this it needed to understand the role Lifelong Learning and collaboration of government with CLC for the effective execution of policy programme for the marginalised population .

Beside it, the major recommendations can be as following-

- **Revive the JSS**- India has more than 200 Jan Sikshan Sansthan which is working on traditional ways, that is not enough according to the time, pace and demand of Community need, for greater efficiency and to meet the challenges of society, it needs to revive the JSS.
- **Smart community Learning Center**- If Government is aspiring for the Smart village Community or smart city, it is needed to help in the development of smart Community Learning Center, which work on grassroots level for generating the smart thinking, smart approach to management and enable the community to use smart technology loaded with Information Communication Technology, where it will also help in the development of E-Governance as well as it will solve the socio-economic problems of vulnerable community.
- **Collaboration and linkages**- There is needed of Collaboration and linkages between CLC, JSS, University, NGO, Government Institutions and any other organizations working for the community for the effectiveness of CLC. Need to bridge the link between university and community through the extension service.
- **Need to understand the Importance of Adult education** for the strengthen of community where Department of Adult Education with the Collaboration of Indian Adult Education Association can play the key role in policy formation and practices and Evaluation of Community Learning centers.
- **Need to Develop the CLC as a center for Skill training** under the "PRADHANMANTRI KAUSHALVIKASH YOJANA" for the upliftment of vulnerable population to generate competency for livelihood and sustainability.
- **There is also need of massive certification** of these sections of the population by coloration of CLC and MHRD ministry.
- **There is need of quality training** to the people who are working for community learning center.

Need to generate the online portal and link the entire community learning center in India for effective management and quality control.

Need to adopt VISTAAR model by all the universities of India as an idle model to work on community development, research, and development task could be performed for the community engagement.

There is also need to develop community research center as a separate wing under Department of Adult Continuing Education and Extension university of Delhi. Which will play the leadership real for other department and university engagement in community learning center?

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Our Contributors

Dr. Sridhar Chimalakonda, Visiting Faculty, Indian Institute of Technology (IIT), Chadalawada Nagar, Renigunta Road, Tirupati, Andhra Pradesh – 517 506 [e-mail: sridhar_ch@research.iit.ac.in]

Prof. Kesav V. Nori, Distinguished Professor, Software Engineering Research Centre (SERC), International Institute of Information Technology, Gachibowli, Hyderabad, Telangana – 500 032.

Dr. Asha Ramagonda Patil, Associate Professor, Department of Continuing & Adult Education, SNDT Women's University, 1, Nathibai Thackersey Road, Mumbai, Maharashtra – 400 020 [e-mail: drpatilasha@gmail.com, asha.patil@caee.sndt.ac.in]

Mr. Chetan B. Singai, Assistant Professor, National Law School of India University (NLSIU), Bengaluru, Karnataka – 560 072 [e-mail: chetansingai@nls.ac.in/chetanbsingai@gmail.com]

Ms. Arunima Chauhan, Ph.D. Scholar, Department of Adult and Continuing Education and Extension Jamia Millia Islamia, Jamia Nagar, New Delhi – 110 025 [e-mail: arunimachauhan18@gmail.com]

Dr. Khaleda Gani Dutt, University Lecturer, Department of Special Education, Stockholm University Frescati Hagväg 10 (Frescati Hage), 106 91 Stockholm, Sweden [e-mail: khaleda-gani.dutt@specped.su.se]

Dr. Amit Kundu, Assistant Professor, School of Management Studies-Techno India, EM 4/1, Sector V, Salt Lake Kolkata, West Bengal – 700 091 [e-mail: amit.kundu74@gmail.com]

Shri Arabinda Bhattacharya, [former Associate Professor, Department of Business Management, University of Calcutta], Res: Kristi Apartment, Flat No.B-2, 4/9 Jatin Das Nagar, Belghoria, Kolkata, West Bengal – 700 056 [e-mail: ara_bha@yahoo.co.in]

Dr. Savita Kaushal, Assistant Professor, Department of Training and Capacity Building in Education, National University of Educational Planning and Administration, 17-B, Sri Aurobindo Marg, New Delhi -110 016 [e-mail: savita@nuepa.org]

Dr. Anita Priyadarshini, Associate Professor in Distance Education, Staff Training and Research Institute of Distance Education (STRIDE), Indira Gandhi National Open University (IGNOU), Maidan Garhi, New Delhi – 110 068. [e-mail: anitapriyadarshini@ignou.ac.in]

Shri Naveen Bhatia, Computer Programmer, National University of Educational Planning and Administration, 17-B, Sri Aurobindo Marg, New Delhi-110 016 [e-mail: mr.nbhatia@gmail.com]

Shri Nitish Anand, Research Scholar, Department of Adult, Continuing Education and Extension, Faculty of Social Sciences, University of Delhi, Delhi – 110 007. [e-mail: nitishanand2891@gmail.com]

Dr. Rajesh, Professor, Department of Adult, Continuing Education and Extension, Faculty of Social Sciences, University of Delhi, Delhi – 110 007. [e-mail: rajeshkumar72001@yahoo.co.in]