

Role of Environment in Adult Learning: Understanding Interactions within the Nested Social System

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Abstract

Development is a broad phenomenon, serving the dual purpose of the evolution of the individual within society and the consequent transformation of the society of which they are a part. 'Development' in an individual implies certain positive changes in different domains that lead to qualitative reorganisations in the structure of their behaviour, skills or abilities, which eventually serve in shaping the collective landscape. Since adult learners fall into different groups depending upon their age, experience, occupation, socio-cultural situation, aspirations and their individual differences, these differences naturally affect their learning needs and, in turn, their choice of learning programmes. The learning environment, therefore, has a significant role in adult learning in potentially influencing their motivation to learn, engagement, and the overall learning outcomes. It is hence crucial to understand the nested social system in which adult learners operate in order to design effective learning experiences. The present paper examines and discusses how the multiple environmental contexts (microsystem, mesosystem, exosystem, macrosystem, and chronosystem) interact to shape adult learning experiences and outcomes.

Keywords: *adult learning, development, learning needs, learning experiences, teaching-learning process, social system.*

Introduction

Education has a significant role in enriching the development of an individual, and being literate has significantly proved to be the currency to a better quality of life. While on one hand, education helps in widening the consciousness to help one realise their inherent potential for self-development and empowerment and exploring the multiple points of view and the larger good beyond personal ambition

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to work harmoniously for the transformation of the society; on the other hand, it concerns training the mind and equipping it with the requisite skills to eventually contribute positively to the development of the society. Both the interlinked dimensions can together synergise the development of the ‘individual’ within society and eventually the ‘society’ that they are part of. Since adult learners fall into different groups depending upon their age, experience, occupations, socio-cultural situation, aspirations and their individual differences, these differences therefore naturally affect their learning needs and, in turn, their choice of learning programmes (National Curriculum Framework for Adult Education: Report of the Expert Committee, 2011). Acknowledging the individual learning needs in the implementation of adult education programmes as the key to transformation can therefore help in transforming the mind and removing obstacles that prevent the resolution of conflicts during the change process, so that education, which is embedded in a socio-cultural context, can be imparted and its quality raised through cooperation and suitable linkages. This eventually can help in creating an ecosystem with equitable access to meaningful learning experiences that raise the consciousness for sustainable development in a diverse society.

Adult Learning and Development (*Concept and Context*)

Development is a broad phenomenon, serving the dual purpose of the evolution of the individual in society and the consequent transformation of the society that they are part of. ‘Development’ in an individual implies certain positive changes in different domains: the biological changes (*changes in body/physical being*), social changes (*social ties/relationships and affiliations*), emotional changes (*self-concept, emotional understanding and experiences*), and cognitive changes (*changes in the thought processes*) that lead to qualitative reorganisations in the structure of their behaviour, skills or abilities, which eventually serve in shaping the collective landscape (Ahmad, 2024; Crain, 2000). Adult development can therefore be holistically understood as being biological, contextual, social, and systematic, wherein these aspects together contribute to the overall development process.

Learning is an ongoing process, where an individual continues to learn and develop (Ahmad 2024, 2021, 2015a, 2015b, 2015c, 2015d, 2015e, 2014; Ahmad and Paul, 2017; Baltes, 1987; Lemme, 2006), advancing and declining in different psychological and social aspects, at different points of time, depending upon the interplay of various life situations and the many factors present in the ‘layers’ of their environment. During the course of evolution and the various stages in human development, individuals are structured and shaped by biological processes that result in growth

and aging, wherein their brain's cognitive abilities and their psychological self-concept are detrimental to the roles they take and the opportunities they avail or are denied, including the beliefs and expectations about whether they have the ability to successfully complete or accomplish a particular task (Ahmad 2024, 2021, 2015a, 2015b, 2015c, 2015d, 2015e, 2014; Lemme, 2006).

Adult development being 'contextual'; individuals continuously influence and are influenced by their immediate environment as active participants in the development of themselves and of the environment that they are part of. In the process, their behaviour is guided, shaped, and propelled and also often confined by a number of factors, like their awareness, perception, life experiences, socio-economic status, ethnicity, and religion, besides others, in how they interact with the world and how they are influenced by it as a result of the interaction. It is widely acknowledged that it is difficult to break loose from one's social address and one's status groupings, and if one does, despite individual initiative, initiatives are constructed within the structures of the resources available (Hendricks and Hatch, 2008). Since humans are inherently 'social', there is an innate human need and tendency in individuals to affiliate and form critical dyads which influence them and change over time in the constant interplay of their relationships with family, friends, co-workers, neighbours, and ethnic or religious group members who promote or detract from their well-being and sense of self. Individuals, as social beings, are continuously shaped by the relationships they develop with those around them, and since relationships 'do not exist in isolation' but are 'embedded in and influenced by various layers of the environment' (Lemme, 2006), they also, in turn, are influenced by the context in which they take place. These 'systematic' and contextual influences on individuals in the course of their development can be understood within the Bronfenbrenner's Ecological Systems theory (Bronfenbrenner, 1979, 1986), which offers a unified view of human development that accounts for the biological, contextual, and social forces underlying adult development, through a four-level system of nested 'microsystems' – the activities, roles, and interpersonal relations experienced by the developing individual in a given setting (Bronfenbrenner, 1979).

Within a systems approach to development, the developing individual is viewed as a growing, dynamic entity moving progressively into and restructuring the milieu in which it resides, while there is also considerable influence from the environment that calls for mutual accommodation (Bronfenbrenner, 1979).

The contextual influences of a single setting in this way are linked through interconnections to other settings and to influences from the larger environment of shared values, laws, or customs, and the different levels in the system act with

greater or lesser influence at different points of time. Although the process is subject to great variability across individuals depending upon their individual differences and different life situations, during the course of development, as individuals develop and pass through various stages across the lifespan, they are known to be confronted with similar life challenges.

The ecological systems theory encompasses these contextual interactions between individuals and their environment into a model that views these influences as ‘ongoing’ and ‘transactional’ such that changes at one level can influence other levels. As a result, in an ecosystem, “identities can change across contexts, vary within a family system, and change throughout the life course” of an individual (Renn, 2003; Rockquemore and Brunnsma, 2002; Root, 1998), affecting their life experience and their quality of life (Rockquemore and Laszloffy, 2005).

Within environmental contexts, families, extended families, friends, neighbourhoods, and learning situations may have a great impact on the development of an individual, especially on their mental health, self-esteem, academic performance, and risk behaviours (Ahmad, 2015a, 2015c, 2015e); while in a developing community, influence from peers and friends is known to be a significant factor that either enhances or hinders the growth of a secured ‘mixed-race identity’ (Ahmad, 2015c, 2024). While racism and discrimination and the adaptive culture context may synergistically impact family and ultimately the development of individuals (Rockquemore and Brunnsma, 2004), particularly from minority communities within their social environment, such as neighbourhoods and educational settings (Ahmad, 2015e; Garcia et al., 1996), a supportive family and experience with peers from diverse communities and mixed races can significantly mitigate the effects of marginalisation (Root, 1990). Moreover, social support from family and exposure to diversity have been found to have a great influence on an individual’s choice in identifying themselves “as part of the minority or majority group” (Poston, 1990; Root, 2003); and the resolution of multiple heritages and various identity choices, including inherited influences (e.g., phenotype, language, and name), traits (e.g., social and coping skills and temperament), and social interactions inside the community (e.g., school/work, peers, and community) (Root, 1999, 2003), cannot be understood without considering family and community influences, socio-historical factors, and the political context (Root, 1992).

The different environments and the structure within the environments, hence, do not have an influence on the development of an individual independently (Bronfenbrenner and Crouter, 1983), but instead, there exists a consistent interaction between the environments and structures that have an influence on the development

of the individual (Bronfenbrenner and Morris, 1998). This implies that in understanding the contextual effects on an individual in a system, it is essential to consider the entire ecological system in which development takes place as well as the proximal processes within the interconnected systems (Bronfenbrenner, 1979; Bronfenbrenner and Morris, 1998, 2006); since, for development to occur, an individual must engage in an activity that continues long enough to become increasingly more complex in place of mere repetition.

The developmentally effective proximal processes require that they are not unidirectional but should have influence in both directions, with “some degree of reciprocity” in the exchange. The ‘proximal processes’ should essentially not be confined only to interactions with people but may also involve interaction with objects and symbols in the immediate environment, which should be such that they invite attention to explore, manipulate, elaborate, and imagine for the reciprocal interaction to take place (Bronfenbrenner and Morris, 2006). This understanding of adult learning processes within the learning setup and within the community as a result of these interactions essentially requires the learning support, therefore, be implemented at different levels for adult learning to be effective since the outcome of the support implemented is dependent on the interaction between ‘learners’ and the ‘context’ they are exposed to and the ‘processes’ that underlie the interaction. Also, the perception of educators regarding the adult learners (including those experiencing certain barriers to learning) and their eventual provision of support to these learners may influence the individual development of the learners.

Adult Learner and the Environment (*Understanding interactions within the nested social system*)

Considering education, according to the ecological systems theory, an individual (adult learner) exists within layers of social relationships, including the educator (*microsystem*), the learning environment (*mesosystem*), family (parents, peers, or colleagues) (*exosystem*) and culture and society (*macrosystem*); these help support and guide individual growth. The ‘microsystem’ constitutes the relationship between a developing individual and their immediate environment, like the learning setup and the family, whereas the ‘macrosystem’ implies institutional patterns of culture (Bronfenbrenner, 1979). In situations where the learners’ prior learning experiences, especially negative learning experiences that could have led to their eventual dropout, can further add to the complexity of the issue and may be detrimental to their further choice in learning, they should hence be seen within this ‘nested’ social system.

The ‘microsystem’, which includes the immediate environment of the developing individual, including their immediate family, learning setup, and peer group, is considered to be the most important level since the majority of the proximal processes that shape development occur at this level (Bronfenbrenner and Morris, 1998).

The larger the microsystem with more enduring relationships, the more enhanced will be an individual’s development in a positive way (Bronfenbrenner, 1994), since caring relationships between an individual and parents or other close carers are known to help promote healthy personality development in individuals into adulthood (Swick, 2004). The microsystem, therefore, serves as a blueprint of activities, roles and interpersonal relations experienced by a developing individual in a given context or setting with particular physical and material characteristics (Bronfenbrenner, 1979) and can be understood as:

“A pattern of activities, social roles, and interpersonal relations experienced by the developing person in a given face-to-face setting with particular physical, social, and symbolic features that invite, permit, or inhibit engagement in sustained, progressively more complex interaction with, and activity in, the immediate environment” (Bronfenbrenner, 1994).

Since an educational setting is not a world existing in isolation but a ‘microcosm’ that is a part of a ‘macrocosm’ (Passasung, 2003), adult learners coming to the learning centre are therefore also members of a wider community outside the learning set-up, besides being members of a learning community, simultaneously.

The ‘classroom behaviours’ of adult learners may hence be affected by the wider community’s culture. Also, as a result, in the teaching-learning process, the adult learners and also the educators may transfer some of their experiences from the wider outside classroom context into the new context, that is, the classroom (Ahmad, 2024, 2015e; De Corte, 1999). This implies the understanding of the classroom culture, within its wider cultural context, underlying the social discourse in adult education; that is, understanding the classroom as a part of the wider world and the classroom as a world of its own.

In an adult learning centre, considering the classroom context, there are other aspects in addition to the physical infrastructure that contribute to the classroom culture – the adult learners, the adult educators, the content/subject matter, and the methodology for instructional delivery (Ahmad 2015d). Within the relationship established in the classroom interactions, between the classroom context and the

wider context, the adult learners as well as the educators both enter the learning setup with certain ‘attached social identities’ (Ahmad, 2024; Cortazzi and Jin, 1996; Katz, 1996). While the educator, in the microsystem, may be influenced by their knowledge and competence, training, and classroom experiences, the adult learners are members of the ‘classroom community’ as well as the wider community simultaneously; it is likely that their classroom behaviour may be affected by the culture of the wider community. Understanding a classroom culture in its wider cultural context is imperative, since aspects of the macro-culture of a society are observed to impinge upon classroom culture (Ahmad, 2015e; Ahmad and Paul 2017; Coleman, 1987; Nunan, 1996; Shamim, 1996; Passasung, 2003); although not much is known of “what happens between people in the classroom” or also for the wide range of social settings in education (Canagarajah, 2001; Chick, 2001; Holliday, 1994).

The interactions taking place in the learning setup are very much a reflection of the concept of education that a particular society holds, and the way a teacher teaches, and a learner learns is influenced by a conventional agreement between learners and teachers and their beliefs, which are derived from the wider society’s concept about teaching and learning interactions. While different societies may hold different views on what learners and educators are “expected to do in a lesson or the learning” (Coleman, 1996), this may affect the classroom processes (Ahmad, 2015e).

The ‘mesosystem’, being a system of microsystems, consists of the linkages and processes occurring between two or more settings, including the individual learner, such as the relations between home and educational setting and the educational setting and workplace (Bronfenbrenner, 1994). Since the interpersonal interactions between a number of overlapping ecosystems impact a developing individual significantly (Bronfenbrenner, 1994), the most crucial influence of mesosystems is that they help connect two or more systems in the context in which the developing individual ‘actively participates’ (Bronfenbrenner, 1979; Bronfenbrenner and Morris, 1998).

In a learning situation, the educator comes in contact with adult learners in the learning setup, including the learners who have experienced certain barriers to learning in their individual life situations and prior learning experiences, and a teaching-learning relationship is established in the learning environment. While the effective management of the learning setup is known to promote a feeling of mastery and achievement with regards to teaching and learning (Ahmad, 2024, 2015b, 2015c,

2015d; 2014), lack of support can result in inefficient support provision in addressing individual learning needs and the barriers to learning affecting participation (Ahmad 2015a, 2015b, 2015c, 2015d, 2015e; Ahmad and Paul 2017). In the ‘exosystem’, two or more settings interact and do not necessarily involve the individual directly, but the individual is affected by what happens within the settings (Bronfenbrenner, 1979). Therein, the institutional head, peers, colleagues, and parents or significant others can influence the micro- and mesosystems, where institutional support to educators in terms of in-service training, assistance through support staff to minimise their workload, and opportunities for professional development can have a positive influence on the meso- and microsystems, while parental involvement of learners or inclusion of a support system can help ensure support strategies are monitored and extended even beyond the learning setup into the learners’ significant reach to minimise barriers and promote effective learning (Bronfenbrenner, 1979).

The ‘macrosystem’ that is the larger cultural context in the system includes issues of cultural values and expectations that have been put in place through social institutions, including the community, wherein changes occurring at one level may have a potential effect on the entire system (Bronfenbrenner, 1979, 1994). It can therefore be understood as ‘the overarching ideology’ that underlies the form and content of interactions within more proximal settings (Ahmad, 2015e; Bronfenbrenner, 1979; Bronfenbrenner and Morris, 1998).

The ‘chronosystem’, the fifth sub-system, which implies the change or consistency over time, concerns not only in the characteristics of the developing individual but also of the environment that the individual is part of, such as the “changes over the life course in the family structure, the place of residence, the socio-economic status” or the status of employment, cross-generation relationships, “or the degree of an individual’s ability in handling their everyday life situations” (Ahmad 2024, 2015e; Ahmad and Paul 2017; Bronfenbrenner, 1995; Bronfenbrenner and Morris, 1998).

Environmental changes across historical time are known to potentially produce significant developmental changes in either direction; where, on one hand, they can disrupt the timing and duration of normative transitions during the life course of an individual, thus interrupting the sequence of learning experiences that are essential for meeting societal expectations as an individual gets older; on the other hand, they can offer an individual a more stable and more challenging opportunity for psychological growth or even reverse a previously downward course.

The role of the environment in adult learning can hence be seen as being multifaceted, encompassing social, cultural, political, and economic contexts. To foster

an inclusive and effective learning environment, it is therefore essential to understand how these factors, including the physical learning space and interactions, influence the learning experience and outcomes for adult learners. In understanding adult learning, it is therefore essential to understand the entire system in which it takes place. Since adult learners often bring their experiences and a sense of purpose to learning, it is crucial to ensure a stimulating and motivating environment that caters to their individual needs. Understanding the interconnectedness between the different sub-systems, including the processes and the interaction between an individual's development and the systems within their social context, can help support all learners and effectively address the potential barriers in learning. Promoting effective participation in adult learning, therefore, requires an understanding of the classroom processes, the learning setup, and families as being 'systems' in themselves, which in the course of their development can have a positive or negative impact on the academic experiences and achievement of adult learners.

References

- Ahmad, F. K. (2024). *An exploratory study on the learning strategies and use of audio-visual aids in adult education in Delhi* (Doctoral dissertation, Jawaharlal Nehru University).
- Ahmad, F. K. (2021). Assistive technology. In A. Hynds (Ed.), *Oxford bibliographies in education*. Oxford University Press.
- Ahmad, F. K., & Paul, M. C. (2017). Learning strategies and audio-visual aids used in adult education in India: A historical overview. *Transcience: A Journal of Global Studies*, 8(2), 11–39.
- Ahmad, F. K. (2015a). Exploring the invisible: Issues in identification and assessment of students with learning disabilities in India. *Transcience: A Journal of Global Studies*, 6(1), 91–107.
- Ahmad, F. K. (2015b). Use of assistive technology in inclusive education: Making room for diverse learning needs. *Transcience: A Journal of Global Studies*, 6(2), 62–77.
- Ahmad, F. K. (2015c). Challenging exclusion: Issues and concerns in inclusive education in India. *Researchpaedia*, 2(1), 15–32.
- Ahmad, F. K. (2015d). Teaching strategies and effective educational interventions for students with learning disabilities. *Transcendence*, 1(1), 45–66.
- Ahmad, F. K. (2015e). Gender inequality in education in the scheduled castes. In D. Karbhari & L. Kumar (Eds.), *Status of scheduled castes' higher education in India* (pp. 71–94). Shree Parasmani Publication.

- Ahmad, F. K. (2014). Assistive provisions for the education of students with learning disabilities in Delhi schools. *International Journal of Fundamental and Applied Research*, 2(9), 9–16.
- Bronfenbrenner, U., & Morris, P. A. (1998). The ecology of developmental processes. In W. Damon & R. M. Lerner (Eds.), *Handbook of child psychology* (pp. 993–1028). Wiley.
- Bronfenbrenner, U. (1995). Developmental ecology through space and time: A future perspective. In P. Moen & G. H. Elder Jr. (Eds.), *Examining lives in context: Perspectives on the ecology of human development* (pp. 619–647). American Psychological Association.
- Bronfenbrenner, U. (1994). Ecological models of human development. In T. Husen & T. N. Postlethwaite (Eds.), *International encyclopedia of education* (2nd ed., Vol. 3, pp. 1643–1647). Elsevier.
- Bronfenbrenner, U. (1986). Ecology of the family as a context for human development: Research perspectives. *Developmental Psychology*, 22, 723–742.
- Bronfenbrenner, U., & Crouter, A. C. (1983). The evolution of environmental models in developmental research. In P. H. Mussen (Ed.), *Handbook of child psychology* (4th ed., Vol. 1, pp. 357–414). Wiley.
- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Harvard University Press.
- Bronfenbrenner, U., & Morris, P. A. (2006). The bioecological model of human development. In W. Damon & R. M. Lerner (Eds.), *Handbook of child psychology* (pp. 793–828). Wiley.
- Bronfenbrenner, U., & Morris, P. A. (1998). The ecology of developmental processes. In R. M. Lerner (Ed.), *Handbook of child psychology* (5th ed., Vol. 1). Wiley.
- Canagarajah, A. S. (2001). Critical ethnography of a Sri Lankan classroom: Ambiguities in student opposition to reproduction through ESOL. In C. N. Candlin & N. Mercer (Eds.), *English language teaching in its social context: A reader* (pp. 208–226). Routledge.
- Chick, J. K. (2001). Safe-talk: Collusion in apartheid education. In C. N. Candlin & N. Mercer (Eds.), *English language teaching in its social context: A reader*. Routledge.
- Coleman, H. (1987). Teaching spectacles and learning festivals. *ELT Journal*, 41(2), 97–103.
- Cortazzi, M., & Jin, L. (1996). Cultures of learning: Language classroom in China. In H. Coleman (Ed.), *Society and the language classroom* (pp. 169–204). Cambridge University Press.
- Crain, W. (2000). *Theories of development: Concepts and applications* (6th ed.). Prentice Hall.
- De Corte, E. (1999). On the road to transfer: An introduction. *International Journal of Educational Research*, 31.

- Garcia Coll, C., Lamberty, G., Jenkins, R., Pipes-McAdoo, H., Crnic, K., Wasik, B. H., & Vazquez Garcia, H. (1996). An integrative model for the study of developmental competencies in minority children. *Child Development*, 67.
- Holliday, A. (1994). *Appropriate methodology and social context*. Cambridge University Press.
- Katz, A. (1996). Teaching style: A way to understand instruction in language classrooms. In K. M. Bailey & D. Nunan (Eds.), *Voices from the language classroom* (pp. 57–87). Cambridge University Press.
- Lemme, B. H. (2006). *Development in adulthood*. Pearson Education.
- National Curriculum Framework for Adult Education. (2011). *Report of the expert committee*. Government of India.
- Nunan, D. (1996). Hidden voices: Insiders' perspectives on classroom interaction. In K. M. Bailey & D. Nunan (Eds.), *Voices from the language classroom* (pp. 41–56). Cambridge University Press.
- Pasassung, N. (2003). *Teaching English in an acquisition-poor environment: An ethnographic example of a remote Indonesian EFL classroom* (Doctoral dissertation, University of Sydney).
- Poston, W. S. C. (1990). The biracial identity development model: A needed addition. *Journal of Counseling and Development*, 69.
- Renn, K. A. (2003). Understanding the identities of mixed-race college students through a developmental ecology lens. *Journal of College Student Development*, 44.
- Rockquemore, K. A., & Brunsma, D. L. (2004). Negotiating racial identity: Biracial women and interactional validation. *Women & Therapy*, 27(1–2).
- Rockquemore, K. A., & Brunsma, D. L. (2002). *Beyond Black: Biracial identity in America*. Sage.
- Rockquemore, K. A., & Laszloffy, T. (2005). *Raising biracial children*. AltaMira Press.
- Root, M. P. P. (2003). Multiracial families and children: Implications for educational research and practice. In J. A. Banks & C. A. McGee Banks (Eds.), *Handbook of research on multicultural education*. Jossey-Bass.
- Root, M. P. P. (1999). The biracial baby boom: Understanding ecological constructions of racial identity in the 21st century. In R. H. Sheets & E. R. Hollins (Eds.), *Racial and ethnic identity in school practices*. Erlbaum.
- Root, M. P. P. (1998). Experiences and processes affecting racial identity development: Preliminary results from the Biracial Sibling Project. *Cultural Diversity & Mental Health*, 4, 237–247.
- Root, M. P. P. (Ed.). (1992). *Racially mixed people in America*. Sage.
- Root, M. P. P. (1990). Resolving “other” status: Identity development of biracial individuals. *Women & Therapy*, 9.

- Shamim, F. (1996). In or out of the action zone: Location as a feature of interaction in large ESL classes in Pakistan. In K. M. Bailey & D. Nunan (Eds.), *Voices from the language classroom*. Cambridge University Press.
- Swick, K. (2004). *Empowering parents, families, schools, and communities during the early childhood years*. Stipes.