EARLY EDUCATION: CRITICAL LITERACY, PROFESSIONAL DEVELOPMENT AND RESOURCES FOR A SUSTAINABLE FUTURE

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Contents

Summary

Early education for a sustainable future begins at birth and continues through adolescence, when children are old enough to begin to take responsibility for making at least some decisions about their own identity and their place in the world. From birth, culture shapes how a child's caregivers present the world and how children come to eventually view that world. In school, approaches to teaching and learning that set an agenda for critical awareness about caring for self, others, and the environment expand the experiences of the child. From a socio-cultural perspective, the values and goals for living are deeply rooted in the context in which the child is reared. Much is dependent upon the communication between caregivers (including parents and teachers) and the child. Early patterns of interpersonal and intrapersonal relationships lay the foundation for how a child grows from a dependent individual to a responsible citizen of the world. Initial formal education is essential for this process.

This chapter focuses on the early aspects of literacy development. Literacy is a set of communication skills. It is a tool for learning and functioning in daily life, and includes reading, writing, speaking, listening, viewing and graphically representing which can all be described on a continuum from least proficient to most proficient. Early aspects of literacy learning establish the foundation upon which most contemporary human beings

build their conception of the world. Literacy development should contribute to the formation of a collective conscience that embraces the notion of interrelated communities responsible for the greater good of society and the world. Specifically, literacy, as a tool for learning, is a critical first step in achieving a solid basic education in the contemporary world, an education that is vital for the on-going process of education for sustainability.

1. Introduction

The critical importance of early education, most specifically, in literacy, for the sustainability of the earth is best appreciated if one reflects on literacy's origins and the subsequent changes in mankind. Literacy emerged and evolved through the development of three technological tools: the invention of writing systems which began some 5,000 years ago for the purpose of storing information, the invention about 4,000 years later of the printing press which allowed for the dissemination of information in books during the Reformation and Renaissance, and the invention in the 1960s of the Internet and the World Wide Web which were initially developed to create a communication system for scientists. Since the 1990s, the use of the Web has become pervasive and has dramatically changed the way humans communicate. Each of these technology tools required different adaptations of the human brain to be able to use literacy, and each has influenced the evolution of civilization itself.

From the beginning of time, mothers have attended to the needs of their children with the goal of helping them become functioning and contributing human beings within their culture. This key social interaction between the caregiver and the child forms some of the most fundamental tenets on language and learning in Vygotsky's socio-cultural theory. From this base, the child learns to trust the parent or caregiver to provide for the necessities of life. This knowledge creates a foundation that allows the child to learn whom to trust and what the benefits of learning are. Reason and knowledge begin to play a role in survival. Behaviors, such as language, begin to develop and the child implicitly learns that survival depends upon gaining and using knowledge. The child's perspective on learning thus begins at an early stage and is critical in early language learning.

The child continues to learn the attitudes, values and behaviors of the primary community, the immediate family and the other people with whom the child interacts. Language acquisition takes place as a natural phenomenon within the context of the primary community. The ability to listen and speak can proceed at different rates for different children, but the stages of this development generally tend to be consistent. Language is marked by and reflects those values, goals, and styles of the primary community. While the development of language is a natural learning phenomena, acquiring the ability to reading and writing, is not. It must be taught. The ability to read is not genetically passed on from generation to generation. Over a hundred years ago, Sir Edmund Huey described reading as "the most remarkable specific performance that civilization has learned in all its history."

The value placed upon literacy and the extent to which the primary community uses formal, academic literacy may vary greatly. When the primary community's use of

literacy matches the literacy used in schools, a child's transition to school tends to be smoother. If a child is nurtured with rich literacy experiences in a language other than the school's language, the transition to school may pose a moderate challenge. However, the challenge is greatest when the primary community's use of literacy differs from academic literacy. Main challenges arise when these children do not develop concepts, lack vocabulary or the knowledge of basic word parts, phonemes. This happens in the case of parents who are unable or unwilling to talk with their children, to repeat family stories, to sing to their children, to read to their children, or to provide print-rich environments. Children reared under these circumstances may experience a home-to-school "disconnect" that leaves them disadvantaged in their initial exposure to formal education.

To avoid beginning school with these disadvantages, it is important for initial schooling that literacy lessons begin as soon as possible, preferably before the age of three. This can be accomplished through the work of pediatricians, social workers, service providers, family literacy programs, or through free, universal preschool and kindergarten programs. In reality, as soon as a child is held in his or her mother's arms, literacy education should become a high priority. This emergent literacy education, from birth through beginning literacy, means that parents or caregivers communicate using adult language, share stories, and give ample amounts of time to hear, understand, and respond to language. This experience becomes the means for literacy and personal development, as well as the means for development at the family and greater community levels.

2. From Nurturing Parents to the Education of All Children

The parents' role of in nurturing their children physically and mentally to function in society and to live responsibly is soon joined by other social institutions, including schools. Both family and society then become linked in guiding children through the complex process of achieving literacy. Though complex, this process is essential for survival and prosperity in a highly technological local and global society. While learning to speak is a relatively easy process--humans are said to be "hard wired" for developing a verbal language--learning to read and write proficiently takes much more time along with formal instruction from well-trained teachers. Different aspects of the language arts-- reading, writing, and spelling —are said to develop in a synchronous model. This model in formal education depicts such processes developing concurrently, with instruction in both receptive and expressive modes of communication to benefit the learner. For instance, instruction in reading can help one learn to be a better reader and writer, and instruction in writing can help one become a better writer and reader.

The above model includes the following stages: a) emergent literacy, b) beginning literacy, c) transitional literacy, and d) intermediate and advanced literacy. While learning songs, nursery rhymes, and role-playing with others, the child develops emergent literacy, the earliest stage in becoming a literate person. During this stage the child is also learning to write through scribbling, picture-making, and attempts at creating letters and symbols. At this point, parents and teachers need to encourage these attempts at written communication. Often, a child begins by learning his or her own name or by noticing and identifying familiar visual symbols such as business signs and

logos. As the child progresses, he or she enters the beginning literacy stage. This is when the child begins to retell stories, becomes aware of such concepts as the alphabetic principle (that written letters represent sounds), and uses invented or temporary spelling. The transitional stage includes the ability to summarize and analyse texts and recognize language and spelling patterns. At the intermediate level, students begin to read and write widely in the content areas, developing the knowledge base necessary for critical thinking. When a child reads widely, he or she becomes a more literate person while gaining world knowledge. The use of literature and trade books allows children to access important content information from historical fiction, poetry, and information books, for instance. Reading information books also familiarizes students with glossaries, indexes and diagrams that help to bridge students into being able to read content area textbooks.

Informational Trade books with expository writing focusing on factual information about the real, scientific or social worlds, while appealing at all ages, begin to be important especially during the more advanced stages of literacy development. Teachers at these stages need to support comprehension of these texts by modelling and teaching various thinking and reading strategies and by promoting discussions of these texts. The knowledge base gained through activities such as writing answers to analytical, creative, and application types of questions leads to understanding and retention of what is read. Discussion of such texts, especially in response to such questions, is likely to facilitate critical thinking about concepts.

Problems arise when societies do not provide enough opportunity for literacy training due to different levels of access to schooling for the development of reading, writing, and numeracy. By providing adequate and appropriate schools and other settings for literacy development such problems can be mitigated. The issue of gender disparities in available access to schools is especially important here. As seen in chapter "*Education Policy and Gender Issues: A Sustainability Perspective*" in this Theme, it is especially vital to the sustainable development process to achieve equal school access for girls. Of the over 100 million 6-11 year olds that still do not attend any form of primary school, over two thirds are girls. Of the 900 million illiterate adults in the world, over two thirds are women. The implications of this situation are obvious in the literature, including the fact that illiterate or semi-literate women tend to have far more babies than those who have completed over four years of primary education. Population growth is one of the primary factors contributing to the growing adverse human impact on earth's life support systems as seen in numerous chapters in this Theme. Educational access coupled with quality instruction is one of the best strategies to achieve gender equity in the educational process.

A related issue is that in both developed and developing countries, some children come to school less-prepared than other students. These children often do not catch up to their classmates. The lack of quality literacy instruction can put these children at risk for academic failure and a life of unrealized potential. This is especially true for minority and low socio-economic groups, and provides a basis, in countries like the United States, for being caught in a cycle of poverty in which their own survival becomes an immediate, daily task.

The use of standards and professional development for teachers has contributed to the improvement of students' achievement, including those at risk for academic failure. This improvement has even been in urban areas where large numbers of students are living in poverty and are at-risk for academic failure. Poverty does not cause reading difficulties, but it is highly correlated with it.

In 1990 the United Nations Educational, Scientific and Cultural Organization at their World Conference on Education for All in Jomtien, Thailand, launched a global movement to promote literacy and basic education for all children. Education for All in the 1990's, while not achieving universal access to schooling and universal completion of basic education, achieved a number of improvements in the access to and delivery of early curriculum and instruction. These improvements include the following:

- A twice the average increase of children in school compared to other decades, with the addition of over 80 million enrolled students. Substantial progress has been made in many developing countries towards universal primary education, and the net-enrolment ratio in primary education is in excess of 80 per cent.
- Early childhood education has been recognized as essential in the developed and developing worlds with a notable increase (5%) of pre-school education.
- With increased primary education, more students are entering secondary education, and subsequently tertiary education. In the last half of the 20th century, world secondary school enrolment rose from 40 million to 400 million students, and tertiary education enrolments increased from 6.5 million to over 90 million.
- The number of literate adults rose from 2.7 billion in 1990 to over 3.3 billion by the end of the decade. However, the proportion of illiterate adults who are women, or 2 out of 3, has remained the same.
- While there has been some progress in reducing many inequalities of opportunity related to gender, disability, ethnicity, geography (rural vs. urban) and class, the preparation and readiness levels of many newly enrolled students who are poor, rural, minorities and indigenous, and female, remains a critical issue.(UNESCO, 2002)

While the achievement of universal access for all children to free and appropriate compulsory primary education by 2015 remains a distant hope, the above improvements are positive steps in providing the basic education that is so vital to the transition to sustainability and sustainable development in the world.

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Biographical Sketch

Joyce C. Fine, associate professor of Reading / Language Arts at Florida International University, is the program leader for Reading Education. Representing FIU, Joyce was a member of the National Commission on Excellence in Elementary Teacher Preparation, sponsored by the International Reading Association, a member of the Reading First Teacher Education Network, and is a Faculty Fellow of the Florida Literacy and Reading Excellence (FLaRE) center. She has been the president of both the American Reading Forum and the Organization of Teacher Educators. Her research interests are in the areas of reading-writing connections and designing clinical programs for struggling elementary and secondary literacy learners.