

# Poverty and Literacy Development: Challenges for Global Educators

Bernard J. King

[w0093941@umail.usq.edu.au](mailto:w0093941@umail.usq.edu.au)

**Abstract:** This paper investigates the links between poverty and literacy development, a topic of great concern for many who work to help low-income children develop early literacy competencies. Underscoring the importance of developing, implementing, and promoting early literacy development among these at-risk children, the paper will assist global educators to enhance parental support for children's language and literacy development, rethink teaching practices within literacy programmes or language arts lessons, improve understanding of issues related to language and literacy development among low-income children, and help to create and maintain better learning environments.

## Introduction

Poverty is a very complex problem with interrelated and sometimes intractable socioeconomic, family, and individual issues. It has been defined in a number of ways, each definition having major consequences for the resulting "poverty population" (Hagenaars & de Vos, 1988). This paper will define poverty in terms of economic well-being, with the understanding that poverty results from a lowness or inadequacy of income (Wagle, 2002). The decision not to use a multidimensional approach to define poverty was based on Wagle's (2005) statement that multidimensional approaches yield poverty measurement outcomes that are more comprehensive but which are largely consistent with those from income-based or consumption-based approaches.

Viewed by some as the consequence of "a lack of individual responsibility, deviant behavior, and poor investment in human capital", (Mead 1986, 1992), poverty has devastating effects on lives, particularly those of children. Poverty is associated with poor child development outcomes, including cognitive development (Aughinbaugh & Gittleman 2003; Baum 2003; Berger, Paxson, & Waldfogel 2005; Blau 1999; Guo & Harris 2000; Rhum 2004; Smith, Brooks-Gunn, & Klebanov 1997; Taylor, Dearing, & McCartney 2004; Waldfogel, Han, & Brooks-Gunn 2002). The cognitive development of children is as strongly affected by the quality of the environment as it is by genetics (Alderman, 2011), and research shows that many variables or risk factors associated with poverty play a role in the cognitive development of children who are persistently poor and for those who are experiencing deep poverty (Bradley, Corwyn, McAdoo, & Coll, 2001; Brooks-Gunn & Duncan, 1997; Conger & Donnellan, 2007; Duncan, Brooks-Gunn & Klebanov, 1994; Evans and Miguel, 2004). These risk factors include less responsive parenting, less stimulating learning environments, higher incidence of maternal depression and stress, lack of access to adequate nutrition, higher incidence of violence, poor housing, dangerous neighbourhoods, and pollution. Associations between the risk factors of poverty and cognitive development become apparent beginning at around two years of age, and by age three the effects are very pronounced (Brooks-Gunn, Klebanov, Liaw, & Spiker, 1993; Klebanov, Brooks-Gunn, McCarton, & McCormick, 1998). The effects of poverty on the child's cognitive development (using achievement test scores) do not diminish during the elementary school years and, if anything, increase somewhat (Zhao & Brooks-Gunn, 2002). Those students score well below national averages on typical, standardized achievement tests (Grigg, Daane, Jin, & Campbell, 2003). Alderman (2011) states that the cognitive delays seen in early childhood quickly accumulate among the poorest children.

Weaknesses in early literacy skills (and subsequent weaknesses in reading skills) are quite common among low-income children (Hart & Risley, 1995; Snow, Burns, & Griffin, 1998). According to Mortenson (1998) children living in poverty are the least likely to become literate. Cunningham (2006) claims that poverty is the largest correlate of reading achievement. How can this be?

The children from the poorest families tend to lack the environmental exposure to essential and influential elements of a child's literacy development: advanced vocabulary, books and other printed materials, and the modeling of verbal skills (Barone, 2002; Duke, 2000; Grigg, Daane, Jin, & Campbell, 2003). Neuman &

Celano (2001) studied access to print (defined as books, magazines and newspapers as well as other resources such as signs, labels, and logos) in neighbourhoods of differing income levels and then documented the availability of print in those communities. Results of Neuman & Celano's (2001) analysis showed striking differences between neighbourhoods of differing income in access to print, with middle-income children having a large variety of resources to choose from, while low-income children having to rely on public institutions which provide unequal resources across communities. Studies by Allington, Guice, Baker, Michaelson, & Li (1995); Di Loreto & Tse (1999); and Smith, Constantino, & Krashen (1996) all have demonstrated that children from poorer families have fewer books in their homes, have fewer books available in the school and classroom library, and live farther from public libraries than do children raised by middle- and upper-income families. Those children are less likely to be read to every day than are children in families with incomes above the poverty line (Barton & Coley, 1992).

## **Enhancing Parental Support For Children's Literacy Development**

We can clearly see that quality of the environment(s) associated with poverty plays a significant role in the cognitive development and subsequent achievement of children. Parenting and the home environment are crucial factors in young children's development, and this is why global educators focus on providing parental support in the hope that this will diminish the disparities in the preschool years so that poor children enter school on a more equal footing to their more affluent peers, providing poor children with richer home literacy environments so that they enter preschool and kindergarten with a foundation of literacy skills.

Developing prerequisite early literacy skills with preschool children living in poverty is often complicated by the fact that the parents and guardians generally have low levels of formal education (Levine & Nidiffer, 1996; Mortenson, 1998). Poverty and low levels of literacy can be passed along to subsequent generations in such environments. That is not to state that all poor families remain uninvolved with the development of early literacy skills, as posited by Durkin (1966). Neuman & Roskos (1993) found that parental involvement in poor communities varied dramatically. Though many families living in harsh circumstances have few resources, there are some parents who, even though poor economically, have rich kinship networks and draw from family relationships to help their children. Sometimes these family relations would help the child to visit the library, and at other times an older sibling would become the "designated reader" for the child or help as the child was trying to read alone. In no instance, however, did Neuman & Roskos (1993) find a concerted effort on the part of the parent or guardian to teach the child to read.

That lack of parental involvement in early literacy instruction is significant since a child's ability to read is related to skill development rather than aptitude. Differences in literacy skills exist between early readers and their peers who are not yet reading, but there are generally no differences between those children in intelligence (St. Pierre, Layzer, & Barnes, 1995). The early readers identified by St. Pierre et al. (1995) had somehow acquired the critical components of early literacy through instructional activities and involvement with peers and interested adults. These instructional activities and the involvement with interested parties is most effective at child care centres or preschools (Barnett, 1995). Almost all of the programmes which reported positive results on childhood literacy outcomes, according to studies by Barnett (1995), and Karoly, Greenwood, Everingham, Hoube, Kilburn, Rydell, Sander, & Chiesa (1998), have involved centre-based early childhood intervention. Those same studies found that most home-visiting programmes do not offer much in the way of child achievement effects. Gomby, Culross, & Behrman (1999) identified a few exceptions to that general finding, and the differences seemed to be related to the intensity of home visiting services. Case management was even less effective than home visits focusing on parenting skills to poor families with young children. We see that centre-based literacy programmes are the ones with the strongest and most consistent effects on children.

The efficacy of early childhood intervention programmes which aim to alter vulnerable children's success in school and beyond hinges on partnership. Evidence suggests that when teachers and parents partner to support children's reading and academic achievement, the at-risk children exhibit demonstrable gains. The U.S. Department of Education (2001) followed the progress of a large cohort of students as they moved through high-poverty primary schools. Growth in reading scores was 50% higher for those students whose teachers and schools reported high levels of early parental outreach than for those students whose teachers and schools reported low levels of parent outreach activities. Children benefit when teachers and parents reinforce the same concepts and ideas. For this to happen, teachers and parents must act as partners; parents and guardians must have some knowledge of what happens in the classroom and educators must have some knowledge of what happens at home in order to support the acquisition and development of literacy skills.

## Rethinking Teaching Practises

Understanding that poverty is a significant factor impacting literacy development (and future educational success), and that parents/guardians reading and writing with their children through a partnership established with the school is crucial to raise levels of literacy, educators must ask themselves how they would design or select, and then implement, literacy programmes which will help these at-risk learners.

Looking carefully at successful preschool programmes that are based on the most current research on the development of children's early literacy skills we can identify some which have been highlighted as building early literacy skills and which include instructional supports for literacy, child social competence, and parenting skills. One such programme is the *Play and Learning Strategies (PALS)* parenting curriculum which has been adapted and used in large scale intervention projects (Dieterich., Landry, Smith, Swank, & Hebert, 2006; Guttentag, Pedrosa-Josic, Landry, Smith, & Swank, 2006; Landry, Smith, & Swank, 2006; Smith, Landry, & Swank, 2005). PALS focuses on responsive parenting and teaches parents techniques to build their children's language and cognitive development. Another such research-based curriculum is the *Partners for Literacy* programme, which has advanced considerably beyond earlier iterations. It is now recognized as having a much stronger focus on literacy and language skills and on social development. Please refer to Table 1 for a selection of research that supports strategies and materials used in the *Partners for Literacy* curriculum. The *Partners for Literacy* curriculum is based on fun activities 'played' by small groups of children and instructional strategies designed to support children's cognitive and language development. The parental support segment of *Partners for Literacy* adapts the activities and instructional strategies from the school component and trains parents to use these with their children at home. The instructional materials for the two programmes mentioned were developed for children from low-income families, and both preschool programmes are used within the *Classroom Literacy Interventions and Outcomes (CLIO)* project, funded by the U.S. Department of Education.

strategy	research
Oral Language	(Snow, Burns, & Griffin, 1998; Hart & Risley, 1995)
Interactive Book Reading	(Whitehurst & Lonigan, 1998)
Alphabet Knowledge	(Juel, 1988)
Phonological Awareness	(Adams, Foorman, Lundberg, & Beeler, 1998)
Extended Teaching/Caregiving	(Klibanoff, Levine, Huttenlocher, Vasilyeva, & Hedges, 2006)
Positive Teacher-Child Relationships	(Pianta, 2004)
Literacy-Rich Classrooms	(Neuman & Roskos, 1993)
English Language Learners	(Tabors, 1997)
Coaching Parents	(Hanft, Rush, & Shelden, 2004)
Home Visiting	(Wasik & Bryant, 2001)

**Table 1:** Research which supports strategies and materials used in the *Partners for Literacy* curriculum

Selecting a successful primary school literacy programme is another issue. By the time a child enters primary school they must have a skill set in order to succeed, and if those early literacy skills are absent, then the child will fall behind quickly. Recall that Zhao & Brooks-Gunn (2002) found that the effects of poverty on the child's cognitive development do not diminish during the elementary school years, but actually increase somewhat. Feinstein (2003) also claims that the damaging effect of poverty appears to increase with the age of the child: by age six the children in the poorest 25 percent of households have fallen far behind their counterparts in the richest 25 percent of households. Indeed, children who experience low levels of cognitive development in early childhood are more likely to repeat grades and to drop out of school early than are those whose cognitive skills and overall school readiness were higher upon primary school entry (Currie & Thomas 1999). Torgesen (1998, p.2) found that "early identification of literacy deficiencies and early intervention, (in Grades 1 and 2), is more effective than later intervention; intervention at Grades 3 and beyond required more hours, more expertise, and more concentrated practice than that which was carried out with the younger students." Reading fluency rates were found to be resistant to normalization when remediation and intervention was begun after Grade 2 (Feinstein, 2003). Even essential elements of literacy programmes are seen to be less effective after a certain age: the positive impact of early phonological awareness instruction is a significant factor early in literacy development but declines in importance as students progress (Foorman, Francis, Fletcher, Schatschneider, & Mehta, 1999). Early intervention programmes have the potential to alter poor children's achievement, but lose efficacy as the student ages. If programmes begin early, continue until children enter kindergarten, and sustain high quality and intensity of services, then they have the best chance of making real differences for the neediest children and families (Feinstein, 2003).

It should be pointed out that supplementary (remedial) instruction and intervention does not need to be limited to one-to-one tutorials; results are usually as good with small-group instruction as they are with one-to-one instruction (Elbaum, Vaughn, Hughes, & Moody, 1999).

## Creating Better Learning Environments

If we look at the work of Zhao & Brooks-Gunn (2002), Feinstein (2003), Currie & Thomas (1999), and Torgesen (1998) we may be tempted to believe that, generally speaking, preschool and primary school education is not reducing academic disparities between the at-risk children from poor families and the children from middle and upper-class families. That is actually the position taken by Lee, Croninger, Linn, & Chen, (1996). Duncan et al. (1994) also found income effects throughout elementary school. There are, however, some schools serving high-poverty communities of children that do “beat the odds” (Denton, Foorman, & Mathes, 2003; Slavin, Madden, Dolan, & Wasik, 1996; Taylor, Pearson, Clark, & Walpole, 2000). These schools can provide models for us as we try to increase levels of literacy among learners from low-income families: What features of instruction were used to help these at-risk children become good readers?

Cunningham (2006) was able to identify twelve shared factors that appear to be important for high literacy achievement in the schools with high numbers of low-income students that were able to increase levels of literacy. Please refer to Table 2 for Cunningham’s (2006) twelve factors.

assessment that guides instruction	large amounts of Instruction	perseverance and persistence
strong community involvement.	hands-on Leadership	professional development
comprehensive curriculum	wide variety of materials	students reading and writing daily
high levels of student engagement	parent participation	specialist support

**Table 2:** From Cunningham, (2006). Twelve shared factors of High-Poverty Schools with literacy achievement

Foorman & Moats (2004) found that reading achievement outcomes were determined more by the particular school and by the teachers themselves than by the effect(s) of any particular programme of instruction. As well respected as some literacy programmes may be, the effect(s) of these research-based and comprehensive programmes is limited by the school environment and/or classroom environment. A well-designed programme in the hands of a low-performing teacher was of little effect, but a strong teacher could get results even with a programme of weaker design (Foorman & Moats, 2004). Overall, teacher quality plays a vital role in the literacy development of students, particularly in Grades 1 through 4 (Books, 2004). Lee et al. (1996) claim that increasing the performance of poor children is unlikely in many poor communities in part due to the quality of schooling that poor children receive.

A growing body of work suggests that most teachers are ill-prepared to implement core classroom instruction and small-group intervention in accordance with research-based principles of literacy instruction (Walsh, Glaser, & Dunne-Wilcox, 2006). Educators working with students from low income homes must understand how to increase literacy rates. Some schools and teachers are not prepared to teach these students, further hindering the literacy development and future school achievement of the at-risk youth (Books, 2004). Professional development for educators working with and within poor communities is essential if literacy rates are to increase. The teachers themselves acknowledge this fact: Foorman & Moats (2004, p.58) reported that many teachers have commented that “their own gains in phonological and phonic knowledge had a major positive impact on children’s reading achievement”. The professional development sessions or workshops presented data about literacy and language acquisition which was new to the teachers, even to those who had taught for many years. Fortified with the new teaching skills, and having had opportunities to practice specific instructional techniques and strategies, the teachers felt empowered (Foorman & Moats, 2004). Veteran educators did not feel patronized or belittled by being asked to attend professional development sessions or workshops; they “expressed gratitude that, for the first time, they had all necessary support materials. Teachers welcomed feedback, guidance, and encouragement given with the expectation of gradual, incremental improvement toward clearly defined teaching standards. They enjoyed watching model lessons, visiting peers’ classrooms, role-playing during workshops, receiving tips from staff members, and cooperative team planning. Many valued the reciprocity embedded in the professional development learning experience” (Foorman & Moats, 2004, p.58). The feedback from the educators attending the professional development shows us how ‘thirsty’ the teachers were for some assistance as they worked with at-risk youth. The great importance to teachers of networks for sustaining research-based practice has been identified by other researchers such as Darling-Hammond & Post (2000), and Gersten, Chard, & Baker (2000). Helping to develop and nurture highly

effective teachers increases student engagement during literacy activities and provides students with more opportunities for academic success (Pressley, Allington, Wharton-McDonald, Block, & Morrow, 2001; Lin, 2000)

## Summary

The persistence of illiteracy remains one of the modern world's greatest shortcomings. Almost 20% of the world's population do not have basic literacy skills. This restricts their ability to carry out everyday activities such as understanding medicine labels and machinery instructions, reading signs, confirming commercial transactions and avoiding being cheated. As indicated by Martinez & Fernandez (2010, p. 10), this illiteracy "not only limits the full development of individuals and their participation in society, but also has repercussions throughout life, affecting a person's family environment, restricting access to the benefits of development, and hindering the enjoyment of other human rights." Illiteracy represents an appalling loss of human potential: Research has shown that postsecondary education attendance is positively associated with earlier achievement in reading literacy (Marks, Fleming, Long, & McMillan, 2000). Surveys have shown that adults with higher levels of reading literacy are more likely to be employed and to have higher incomes than those with lower levels (OECD and Statistics Canada, 2000). A study of adult literacy in the United States has also found that literacy skills contribute to occupational status and earnings (Kerckhoff, Raudenbush, & Glennie, 2001). In other words, literacy skills are found to be closely associated with a range of educational and occupational outcomes. This limiting effect of illiteracy or underdeveloped literacy skills will only become more prominent as societies incorporate more information and communications technologies (Borjas, 1996). This is not to state that full literacy is a panacea; Auerbach (1992) claims that there is a "literacy myth" in which economic mobility is touted as being the result of literacy acquisition. Literacy alone cannot overcome other factors (race, behaviour problems, etc.) when pursuing educational and employment opportunities (D'Amico, 1999), but we do know that delays in literacy development can be costly to both individuals and societies.

In this paper it was shown that the family income of preschoolers has an effect on early cognitive development, specifically the development of literacy skills. That underdeveloped foundation can follow a person not just through childhood, but through life (Brooks-Gunn, 2003). The longer a society waits to intervene in the life cycle of a disadvantaged child, the more costly it is to remediate the disadvantage (Heckman, Stixrud, & Urzua, 2006).

Engaging low-income parents in their children's reading acquisition during preschool years, particularly by focusing attention on certain skill areas, can help children find greater success in school. Enhancing parental support for children's literacy development does work. We do know much about the variables that predict reading outcomes, and programmes exist which stress and focus on those known variables.

Global educators must rethink teaching practises with regard to communities living in poverty. Teachers hold the key to the literacy of high poverty students. There is more to developing literacy than simply teaching isolated reading skills; many researchers have found that the key factor in developing competent readers and writers is a high-quality teacher (Pressley, Allington, Wharton-McDonald, Block & Morrow, 2001). In other words, reading programmes, curriculum frameworks, national standards, etc. are only as good as those who are implementing them. Children's reading and writing success, especially in high-poverty schools, depends on teachers who will use every available minute to build language and academic skills, increasing literacy opportunities for children living in poverty, thereby allowing the educator to pass along one of the "keys to social mobility" (Gee, 1991). It is essential to professionalize literacy educators and provide them with adequate pay and training.

School and classroom factors that improve literacy development, reading and writing achievement, the language learning characteristics of low-income children, and the needs of teachers who work in such environments, have all been identified. The most serious reading problems appear to be preventable with the proper intervention and remediation. This instruction, however, must begin early, aiming to prevent the development of problems and keeping close track of student progress. This combination of strong classroom instruction with focused interventions has been shown to reduce the incidence of reading failure among young students (Torgesen, 1998). Early intervention programmes have the potential to dramatically alter poor children's achievement in elementary school. In the absence of interventions to improve the development of early literacy skills, children in poverty are likely to show serious signs of developmental delays by the time they enter primary school and to "play catch-up" for the rest of their lives.

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