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Carolin Seelmann (eds.)

Prepare for Life!

Raising Awareness for Early Literacy Education

Results and Implications of the
International Conference of Experts
2013

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Prepare for Life! Raising Awareness for Early Literacy Education. Implications of the International Conference of Experts

Early Childhood Programs Improve Educational Outcomes

Reading is vital for education and the key to social participation. International studies show that too few people around the globe can read and write sufficiently to master the challenges posed by life today. According to the PISA study, in Europe alone some 20 per cent of young people at the age of 15 lack basic reading and writing skills. That means, on the one hand, that one young person in five in Europe is not adequately prepared for entering the world of work. On the other, it means they have not received the attention and assistance they required in the past.

Schools are generally seen to be the venue for teaching reading and writing. Yet ensuring children develop these skills is a responsibility that must be addressed by society as a whole – a responsibility that commences as soon as a child is born. Promoting language competency along with a desire and ability to read is, in fact, a joint task that must be tackled by individuals and organizations in both the public and private sectors. Families, educational institutions, volunteers and celebrity reading ambassadors, among others, must set the course by helping children develop an interest in language and a joy of reading – as early in life as possible. This is what lays a solid foundation for a successful education and a self-determined life.

All Societal Actors Must Participate

"Prepare for Life! Raising Awareness for Early Literacy Education" was therefore the name given to the first international conference of experts in Germany on this topic that convened in March 2013 in Leipzig. The conference brought together more than 130 experts from over 35 countries to exchange ideas and to discuss measures for promoting early literacy education in a variety of national and educational contexts. They also examined the cultural, social and political frameworks that can promote language and literacy skills in early childhood – generally understood to be the first eight years of life.

Agreement existed among the experts that to be effective, early childhood education must involve all relevant societal actors and must put a greater focus on the development of language and reading competencies, since they are the prerequisites for all subsequent educational success. As the presentations made clear, families also have

a key role to play. They are the nucleus of each child's life and the place where education commences. Parents and families must therefore be shown how they can better fulfill this all-important role.

Concretely, this requires not only taking a range of social and cultural elements into account, it means getting all of the relevant public- and private-sector actors involved. To ensure this happens, the participants at the "Prepare for Life!" conference developed the *Leipzig Recommendations on Early Literacy Education* (see final section). As the experts at the conference agreed, early literacy education is everyone's responsibility and must become a part of every child's life, since it serves as the springboard to more advanced forms of literacy development and, ultimately, greatly determines the future of society as a whole.

Knowing the Alphabet Is Not Enough

The conference participants adopted the UNESCO definition of literacy, namely the "ability to identify, understand, interpret, create, communicate and compute, using printed and written materials associated with varying contexts. Literacy involves a continuum of learning in enabling individuals to achieve their goals, to develop their knowledge and potential, and to participate fully in their community and wider society."[1] And while literacy may indeed describe other skills needed for dealing with life's complexities – the ability to know what is good and bad for one's physical wellbeing (health literacy), the ability to make best use of one's physical skills (physiological literacy), the ability to deal with money (financial literacy) – the conference limited itself to an understanding of literacy as the means, both formal and informal, of acquiring language

skills. This more restricted definition stems from a recognition of the fact that language competency is the basis for almost every other type of literacy competency and, thus, enables children to deal with all aspects of life.

The discussion of how literacy-related initiatives should be structured, which aspects they should cover and whom they should include is, of course, an ongoing one. Neurological, physiological and psychological developments all play a role in children's development, as do the social and cultural atmosphere in which they grow up. Within this complex system of interdependencies, education should ideally play both a preventive and interventionist role. Understanding all of these underlying factors is therefore necessary if the strengths and limits of literacy education are to be evaluated. This is precisely the goal the "Prepare for Life!" conference set for itself and the gathered experts thus examined early literacy education from an interdisciplinary perspective.

Learning across National Boundaries

The conference considered current findings from brain science and developmental psychology, along with research on the physiological and language-related aspects of developing early literacy skills (see section 1). Current research has much to say about which types of early childhood programs are most likely to be effective and which literacy-relevant developments they can promote. Ensuring proven, evidence-based programs are available to children is thus a key factor determining the effectiveness and sustainability of early literacy education efforts. Found in countries all around the globe, such programs can promote children's language and literacy skills in a variety of

ways, combining literacy-related goals with activities that are playful and creative and that incorporate music, math, science, motor skills and other subjects critical to learning in the first eight years of life (see section 2).

A number of factors determine on a practical level the degree to which literacy programs can be implemented and are effective, something made clear by international studies such as PISA. These factors include families' socioeconomic status, parents' educational levels and children's gender and cultural background. Not every program designed to promote language and literacy skills can be deployed in every country, given the range of conditions potentially found there: urban versus rural communities, monolingual versus multilingual families, the degree of technological advancement present within a given society, to name but a few considerations (see section 3).

By looking at each country's unique situation, critical information can be gleaned as to the background conditions and other factors that best promote literacy. This also makes it possible to identify approaches that have been particularly effective in one national context and to adapt them to other settings so others may benefit from them. Bookstart, for example, is a project that has proven popular far beyond the country where it was originally developed.

Bookstart: An Oft-Adopted Role Model

At last count, 38 countries on all continents have adopted Bookstart in one form or another since its initial implementation in the United Kingdom in 1992. The program provides children aged one year and their parents with books; in some countries such as the UK and Germany, families receive materials at

regular intervals. One key advantage of the Bookstart approach is that it actively involves a range of individuals and organizations: parents, as the most important caregivers in the lives of small children; pediatricians, as critical and influential providers of information to parents; libraries, as settings of informal learning; schools and other educational institutions, as sites of formal instruction.

In conjunction with the "Prepare for Life!" conference, Bookstart and Bookstart-influenced programs from 21 countries were documented in an exhibition that presented original materials and brief program profiles. This comparative display clearly showed that effective approaches to early childhood language and literacy promotion can transfer across national borders if they are adapted to take social and cultural differences into account (see section 5).

A Network of Actors Needed

By emphasizing the family, Bookstart focuses on a key target group in early literacy education. The integration of parents and families – a child's first teachers – into early childhood literacy programs is crucial to the programs' success. They must empower parents and families to provide a home rich in words and stories, and to inspire children to speak, sing, play, move and communicate. All too often, the requisite conditions for making this happen do not exist within the family. Children must therefore be aided by individuals and institutions in other settings. School is of course the traditional venue for imparting reading skills. Between family and school, caregivers in day-care centers and preschools play a key role in promoting language and reading development in early childhood. Together with the family, they are part of the network that helps children

learn to enjoy language and develop the desire to engage with reading-related media – a network that includes libraries, youth centers, community groups, local associations and foundations. In addition to paid staff, volunteers play a significant role in achieving these literacy-related goals. For a network to prove effective, all of those involved in early literacy education must interact and coope-rate across social and educational bounda-ries. To that end, early literacy education is a task that must be embraced by all of society (see section 4).

Help Breaking the Vicious Circle
When actors from all social segments and all phases of early childhood development get involved to promote literacy, they are helping lay the foundation that enables people to learn effectively throughout their lives. Early literacy education thus becomes an essential part of the classroom and work-place experience, thereby increasing the chances that each individual can participate fully in society.

Beyond the advantages that accrue on an individual level, early literacy education also produces considerable economic benefits for society in general. To take the UK as an example, each British pound invested in the Bookstart program produces a social return of £25, since that is the amount saved on compensatory measures needed later when a child does not participate in Bookstart (Booktrust 2010). The experts concur: early literacy education is crucial for society and investing in it produces long-term econo-mic returns. It can also be an effective tool for breaking the vicious circle that causes illiteracy to recur generation after genera-tion. Regardless of the country in question, politicians and policymakers have a key

role to play here, and one of their central tasks is embedding early literacy education programs in educational and social systems. They must thus ensure the appropriate financial resources are made available for anchoring effective programs where they are needed (see section 6).

In Germany, the Federal Ministry of Edu-cation and Research has been providing the financial framework since 2011 for the program Lesestart – Drei Meilensteine für das Lesen (Lesestart – Three Milestones for Reading), a program Stiftung Lesen has been implementing nationwide in keeping with the Bookstart approach. Stiftung Lesen would like to express its gratitude here to-ward the Federal Ministry of Education and Research for also financing the "Prepare for Life!" conference. By doing so, it has helped us raise awareness of the importance of early childhood education within an international network of researchers, practitioners and institutions, all of whom are committed to promoting language and literacy competen-cies in the earliest years of life.

Note

[1] The Plurality of Literacy and Its implications for Policies and Programs. UNESCO Education Sector Position Paper: 13. 2004. http://unesdoc.unesco.org/images/0013/001362/136246e.pdf.

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Early Childhood Development – Prerequisites for Better Outcomes

Wolf Singer

Current Findings from Brain Science in Childhood Development

Important Questions
Considerations of the optimization of educational strategies should take into account knowledge of brain development and learning mechanisms that has been accumulated by neurobiological research over the past decades. The vast amount of data precludes a comprehensive overview of potentially relevant aspects in the format of this presentation. Therefore, emphasis will be on general aspects of knowledge acquisition and representation. In this context the following questions are of particular importance: first, how knowledge is represented in the brain; second, whether, at birth, brains already possess knowledge about the world in which they are going to evolve, or whether they should be considered as a freely programmable tabula rasa; third, whether and how experience and education interfere with brain development; fourth, to what extent the developing brain has control over the processes that mediate its development and knowledge acquisition; and fifth, whether and how learning processes in the developing brain differ from those in the mature organism.

The Neuronal Representation of Knowledge
Unlike computers – which consist of an invariant hardware that performs fixed operations, the sequence of which can be freely programmed by appropriate software – there is no dichotomy between hard- and software in the brain. The way in which brains operate is fully determined by the integrative properties of the individual nerve cells and the way in which they are interconnected. It is the functional architecture, the blueprint of connections and their respective weight that determine how brains perceive, decide and act. Hence, not only the rules according to which brains process information but also the knowledge that a brain possesses reside in its functional architecture. It follows from this that the connectivity patterns of brains contain information and that any learning, i.e., the modification of computational programs and of stored knowledge, must occur through lasting changes to their functional architecture. Such changes can be obtained by altering the integrative properties of individual neurons, by changing anatomical connectivity patterns and by modifying the efficacy of excitatory and/or inhibitory connections. Thus, the search for the sources of knowledge is equivalent to the search for processes that specify and modify the functional architecture of the brain.

Three main processes can be distinguished: evolution, ontogenetic development and learning. Although these processes differ remarkably in their time course and underlying mechanisms, they are equally responsible for the specification of the brain's functional architecture. Hence, they can be considered mechanisms underlying knowledge acquisition or, in more general terms, cognitive processes.

Evolution as a Cognitive Process
The architectures of brains have evolved according to the same principles of trial, error and selection as have all the other components of organisms. Organisms endowed with brains whose architecture permitted realization of functions that increased their fitness survived, and the genes specifying these architectures were preserved. Through this process of selection, information about useful computational operations was implemented in brain architectures and stored in the genes. Every time an organism develops, this information is transmitted from the genes through a complicated developmental process into specific brain architectures, which then translate this knowledge into well-adapted behavior.

Because evolution is conservative, basic features of the functional architecture of nervous systems are preserved once they have proven their efficacy. Thus, the integrative properties of nerve cells and the main principles of information processing have remained unchanged since the very first emergence of simple nervous systems in invertebrates. This implies that computational strategies, for example the learning mechanisms that associate temporally contingent signals, have remained virtually unchanged throughout evolution. We conti-

nue to utilize the knowledge that primitive organisms acquired about computational algorithms that proved useful for the evaluation of sensory signals and preparation of well-adapted responses. The only major change that nervous systems have undergone during evolution is a dramatic increase in complexity. This complexity is due to a massive increase in the number of nerve cells and, even more so, to a stunning increase in connections. The human brain consists of about 10^{11} nerve cells and 10^{14} connections. A cubic millimeter of cerebral cortex contains approximately 60,000 neurons. Each of these neurons contacts between 10,000 and 20,000 other neurons and receives inputs from a comparable number of nerve cells. The majority of the interactions mediated by these connections occur among nerve cells located in close vicinity, but there are also numerous long-range connections that link nerve cells distributed across remote areas of the brain. The architecture of the brain's connectome is organized according to the principles of small-world networks and its basic traits are genetically specified.

Thus, an enormous amount of information is stored in the functional architecture of highly evolved brains, and one of the sources of this information is evolutionary selection. Important in the present context is the fact that most of the genetically determined features of brain architecture are readily expressed by the time of birth. This implies that babies are born with brains that have stored in their architecture a substantial amount of knowledge about useful strategies of information processing. While the functional specialization of sense organs determines which signals from the environment are to be captured by the organism for further evaluation, the functional architec-

ture of the nervous system determines how these signals are to be processed, recombined, stored and translated into action patterns. Inborn knowledge defines how we perceive and interpret sensory signals, evaluate regularities, derive rules, associate signals with one another, identify causal relations, attach emotional connotations to sensory signals and, finally, how we reason. Human babies are born with an immense knowledge base about the properties of the world in which they are going to evolve, and this knowledge resides in the genetically determined functional architecture of their brains. Thus, their brains are far from being a freely instructable tabula rasa.

For obvious reasons we have no conscious recollection of the acquisition of this knowledge. It is a priori in nature and determines the basic operations of our brains including the subsequent acquisition of further knowledge by learning. It is implicit knowledge that specifies how we perceive the world and categorize phenomena as alike or different. We cannot question this knowledge, nor can we override, by conscious deliberation, the computational results provided by our inborn brain architecture. Even though we know that vibrations with frequencies below and above 18 Hz differ only quantitatively in physical terms, our sensory systems arbitrarily subdivide the continuum into vibrations and sounds, respectively. Examples of such arbitrary category formation according to a priori inferences set by the architecture of our nervous system are numerous. These inborn preconceptions can also be more subtle and are then less easily identified as such. They appear as nonquestionable convictions about the nature of the world in which we evolve. Current research on primates and babies is aimed at revealing this

innate knowledge base. Because this a priori knowledge provides the framework for all subsequent learning processes, it needs to be taken into account in any attempts to improve early educational efforts.

Experience-dependent Development
Despite the substantial determination of brain architecture by genetic factors, human babies are born with extremely immature brains that continue to develop structurally until the end of puberty. At the time of birth, all neurons are in place and the basic connections, especially those bridging long distances, are formed. However, the majority of neurons in the cerebral cortex are not yet fully connected. It is only after birth and during the following years that the functional architecture of the brain attains its final complexity. This developmental process is characterized by a continuous turnover of connections. Nerve cells extend the processes which receive contacts from other nerve cells (dendrites) and the processes with which they distribute their activity to other nerve cells (axons) and establish contacts. Once formed, these connections are subject to a functional test and are then either consolidated for the rest of the individual's life or are removed irreversibly. This validation process is controlled by neuronal activity. Connections among neurons that have a high probability of displaying temporally correlated activity tend to become consolidated, while connections among neurons that have a lower probability of being activated in a correlated manner tend to be removed.

"Neurons wire together if they fire together." After birth, the activity of neuronal networks is of course influenced to a large extent by the sensory signals now available.

This implies that sensory experience has access to a developmental process that leads to the specification of functional architectures. Through this process, experience can shape neuronal connectivity (for review of literature on experience development see Singer 1990; 1995).

What makes this process so important in the context of educational strategies is its irreversibility. As mentioned above, this process of circuit formation and selection according to functional criteria persists until the end of puberty – but it occurs within precisely timed windows that differ for different structures. For areas of the cerebral cortex that accomplish low-level processing of sensory signals such as the primary sensory areas, this experience-dependent maturation of circuitry begins shortly after birth and comes to an end within the first two years of life. For areas devoted to the processing of language, the developmental window starts later and is also open for a longer period of time. Even later do the developmental windows appear for the maturation of the centers that serve the management of declarative memory, the representation of the self and the embedding of the individual in social systems.

Once the respective developmental windows close, neurons stop forming new connections and existing connections can no longer be removed. This is why the windows during which brain maturation is susceptible to experience-dependent influences are termed "critical periods." It is only during these critical periods that brain architectures can be modified and optimized according to functional criteria. Once the respective critical period is over, the circuitry in the concerned area of the neocortex is no longer

modifiable. Connections that are lost cannot be recovered and inappropriate connections cannot be removed. The only way to induce further modifications in the now crystallized architecture is to change the efficacy of the existing connections. These functional modifications are assumed to be the basis of adult learning and are constrained in the adult by invariant anatomical architectures.

The important role that experience plays in these postnatal maturation processes is underlined by the dramatic consequences of sensory deprivation. In the pre-antibiotic area babies often suffered from perinatally acquired eye infections that caused opacities of the cornea or the lens. Hence, these babies had no contour vision. They were unable to receive high-contrast signals from contour borders and could perceive only diffuse changes in brightness. Because of pre-specified response properties that are tuned to contrast borders, neurons in the cerebral cortex cannot respond well to such global changes in brightness and, consequently, activity between interconnected neurons along the transmission cascade from the eye to cortical neurons is only poorly correlated. Due to these poor correlations, initially formed connections become disrupted and those which happen to persist are exempt from functional validation and have a high chance of being inappropriate. Because of the lack of normal contour vision, the circuitry in the visual cortex cannot develop normally, circuits cannot be selected according to functional criteria and the developmental process stalls at an immature, nonfunctional level. Once the critical period – which lasts about three months for cats and about a year following birth for humans – is over, these deficits in connectivity can no longer be restored.

Surgical interventions that restore the eyes' optical media are in vain because the brain is now unable to appropriately process the signals conveyed by the eyes. Animal experiments have revealed that the retinae function normally despite early deprivation but the neuronal networks in the visual cortex are unable to appropriately process the incoming activity patterns. Babies that have undergone such late restoration of their sight remain functionally blind and at best develop some rudimentary perception of luminance changes.

Although, for obvious ethical reasons, there are no systematic studies of deprivation effects on higher cognitive functions such as language acquisition and social integration, it appears legitimate to conclude by extrapolation that there are critical windows for an acquisition of such higher functions as well and that deprivation during these phases would be equally detrimental.

Despite the likely importance of developmental windows for the acquisition of higher cognitive functions, little is known about onset and duration. As knowledge about these time courses would be highly valuable for a better management of educational curricula, research in developmental psychology will gain increasing importance in the field of pedagogics.

The Adaptive Value of Epigenetic Circuit Selection

The dramatic effects that deprivation has on the maturation of brain architectures raise the question of why nature has implemented developmental mechanisms that expose the maturing brain to the hazards of sensory experience. It is likely that rendering the developmental process susceptible

to epigenetic influences allows the realization of functions that could not have been attained through genetic instructions alone and that this gain of function more than compensates for the possible hazards of deprivation. The development of visual functions provides support for this notion (see Singer 1995).

One example is the experience-dependent selection of connections among neurons in the visual cortex. Through the selective stabilization of connections that link neurons exhibiting correlated activity, frequently occurring correlations in the outer world can be translated into the architecture of connections. Thus, the system can learn about statistical contingencies in its environment and can store this knowledge in its processing architectures. This knowledge can then be used to formulate educated hypotheses about the specific properties of the world in which the organism is evolving. Through epigenetic shaping of the brain's functional architecture, the organisms can adapt their neuronal architectures to the environment in which they happen to be born, greatly economizing the computational resources that have to be invested to cope with the specific challenges of the respective environment.

Another impressive illustration of such experience-dependent adaptation of cognitive processes is provided by language acquisition. Exposure to the mother language induces irreversible changes in the processing architectures required for the decoding and reproduction of this language. Thus, children develop specific schemata for the prosody of their mother language and for characteristic phonemes. This allows them to rapidly and automatically segment the

continuous stream of sounds produced by speakers. This is not the case for second and third languages if they are acquired only at later stages of development. In this case, segmentation is no longer automatic but requires attentional control, which is why effort is required to follow multispeaker conversations in foreign languages acquired later. A particularly striking example of the irreversible shaping of processing architectures is the inability of speakers of Asian languages to distinguish the consonants "r" and "l." They are actually unable to hear the difference between these consonants because Asian languages melt them into a single phoneme category. Evidence indicates that it is exceedingly difficult – if not impossible – to reinstall these phoneme boundaries by learning once developmental windows for the acquisition of the mother language have come to an end.

Opening the development of the brain's functional architecture to epigenetic, experience-dependent modifications thus has two major advantages over developmental processes that depend uniquely on genetic instructions. First, by including signals from the environment it permits functional validation and fine-tuning of connections to an extent that cannot be achieved by genetic instructions alone. This permits the realization of functions that could not have been developed otherwise. Second, the inclusion of environmental influences in the developmental process permits the specific adaptation of processing architectures to the actual demands of the environment in which they are found. These options obviously more than make up for the risks that are associated with rendering the development of architectures susceptible to epigenetic modification.

The Control of Experience-dependent Development by Internal Gating Systems

As one might expect, the developing brain has mechanisms to protect itself against inappropriate epigenetic modifications of its architecture. Obviously, it has no possibility to defend itself against deprivation, because lack of information cannot be compensated for. However, nature has implemented powerful mechanisms that allow the brain to exclude environmental signals from the shaping of its architecture once they are identified as inappropriate or conflicting. For the induction of activity-dependent modifications of developing circuits, complex cascades of molecular interactions need to be triggered by neuronal activity. This highly complex chain of molecular processes is in turn controlled by signals from multiple sources that enable or disable the translation of neuronal activity into lasting anatomical modifications. These gating signals are derived from feedback projections originating in other processing areas and from modulatory systems that control global brain states. The activity of these modulatory systems is in turn gated by subsystems involved in the management of attention and the evaluation of the behavioral relevance of signals. The purpose of this control is to assure that only those signals from the environment can induce circuit modifications that match the expectancies and the needs of the developing brain.

Only those signals can induce lasting changes in circuitry that are attended to by the organism and attributed behavioral significance. Thus, the a priori knowledge that resides in the genetically determined architectures of the brain is used to select the environmental signals that are appropriate

for the epigenetic shaping of brain architectures. The developing brain knows about the nature of the signals that can be used for the optimization of its circuitry. Thus, the developing brain engages in an active search for signals that it needs for its own development. The nature of required signals changes depending on the time course of the various developmental windows. Accordingly, only those inputs are considered for circuit changes that match the needs of the current developmental process. It follows from this that the developing brain has the initiative in all processes of experience-dependent development. It poses specific questions at specific developmental stages, directs its attention selectively to the special input patterns and accepts only those signals for circuit optimization that match prewired expectancies (for a review of the pertinent literature see Singer 1995).

This has far-reaching consequences for the design of educational curricula. It is obvious that deprivation will have a disastrous impact at all stages of development. However, it is also obvious that there is no point in offering as many stimuli as possible over as long a time as possible. The developing brain will utilize only those signals that it actually needs, and there is the risk that offering stimuli which are too numerous or too diverse will have a distractive effect and make it difficult for the brain to concentrate on those signals that it really needs. This has a number of implications for educational strategies. First, it is imperative to avoid deprivation of any kind, be it sensory or social. However, under normal conditions one can assume that the environment is sufficiently rich to provide the necessary information. Second, one should carefully observe the spontaneous behavior of children, to find

out what their needs and interests are at the various developmental stages, and to then provide responses that are as comprehensive and nonambiguous as possible. What the children are actually looking for and require for successful development can easily be deciphered from their emotional attitudes. They are not only searching spontaneously for the stimuli they need but they will respond to the availability of the requested stimuli with positive emotions. As the time courses of the various developmental windows may show considerable inter-individual variability, it is important to find out when a particular child needs which information in order to promote its brain development. This can be achieved by carefully observing which activities attract that child's attention and engage its interest. In order to find out, it is of course necessary to expose children to the full spectrum of sociocultural achievements and then to let them choose. Here one can rely on children's desire to imitate what their peers do with enthusiasm.

The Importance of Rest and Sleep in Experience-dependent Brain Development

It has long been known that sleep has beneficial effects on the consolidation of memories. Over the last decades this general notion has received robust support by well-controlled experimental studies. Sleep appears as a highly structured active process by which memory traces that have been accumulated throughout the day become reorganized and consolidated.

Neurophysiological studies suggest that activity patterns induced by learning trials are repeated during particular sleep phases, and it is believed that this rehearsal promo-

tes consolidation of memory traces (Louie and Wilson 2001; Hoffman and McNaughton 2002). Interestingly, not only the consolidation of declarative, i.e., consciously stored memories, requires sleep but also the acquisition of abilities that are acquired through procedural learning, i.e., through practice. A well-documented example is perceptual learning. If subjects practice discrimination of certain visual features such as the orientation of contours, their performance increases over time in a way that is highly specific for the particular task. This improvement of an instrumental ability, which relies on modifications of response properties of neurons in the visual cortex, also requires consolidation through sleep. If subjects are sleep-deprived after the training sessions, performance does not improve (Ahissar and Hochstein 1997).

Even more surprising is the increasing evidence that the experience-dependent modifications of neuronal architectures that occur during brain development also require sleep for their expression and consolidation. The evidence again comes from deprivation experiments in the visual system. In early experiments it was found that visual experience had more profound effects on the response properties of cortical neurons of kittens when these were exposed to the visual environment for only brief periods, and subsequently allowed to rest in the dark, than when they were exposed to the same environment for a similar period of time uninterruptedly (Mioche and Singer 1989). Another study showed that circuit changes did not occur, despite exposure to visual conditions that normally induce drastic changes, when animals were anesthetized following exposure and thus prevented from natural sleep (Rauschecker and Hahn

1987). A more recent study provided direct evidence that interference with a particular sleep phase, so-called paradoxical or rapid-eye-movement sleep, is sufficient to disrupt experience-dependent circuit selection. Thus, experience-dependent developmental processes seem to depend on sleep in very much the same way that the formation of memories by conventional learning does.

The evidence from animal experimentation should have consequences for the organization of occupational schedules in day-care centers. It is to be expected that children require episodes of rest and, presumably, sleep after phases during which they had particularly intense experiences. Thus, one should consider organizing day-care centers in a way that allows the children to retreat and have a nap according to their individual needs. To the best of my knowledge there are no systematic studies on the relation between sleep patterns, learning and brain maturation in children – but the data from animal experiments suggest that rest and sleep play a pivotal role even in developmental processes.

Mechanisms of Learning

As mentioned above, it is generally assumed that learning relies on changes in the efficacy of excitatory and/or inhibitory connections. The mechanisms that mediate these learning-induced changes in the coupling strength of neurons closely resemble those that mediate the activity-dependent circuit changes during experience-dependent development. Excitatory connections among neurons strengthen if these neurons discharge in a correlated way, while they weaken if the activity of the cells is temporally unrelated. The molecular processes that evaluate the temporal correlations among neuronal

firing patterns and translate these into lasting modifications of coupling strength are by and large the same as those promoting activity-dependent circuit selection during development. The only major difference is that, in the adult, a weakening of connections is no longer followed by their removal and that new connections are formed. However, there are a few exceptions. In recent years evidence has become available showing that in a few distinct brain regions, parts of the hippocampus and the olfactory bulb neurons continue to be generated throughout life, and that these neurons form new connections and become integrated into existing circuitry. Thus, in these distinct areas of the brain, developmental processes persist throughout life, and it is presently unclear why this is only the case in these particular regions and not in the cerebral cortex, where most of the learning-related modifications are supposed to take place.

Adult learning resembles experience-dependent developmental processes in a number of ways, including its dependence on attentional mechanisms, reward systems and sleep. Thus, all the strategies that have been developed in order to improve learning processes in the adult are likely to be helpful for the promotion of experience-dependent developmental processes in the young. What is required now is the transfer to educational programs of knowledge about experience-dependent developmental processes that has been accumulated through neurobiological experimentation. This necessitates intensification of research in developmental psychology and the incorporation of noninvasive techniques for the assessment of brain processes in children. Such methods are now available and can be applied to children in the form of, for

example, electroencephalographic recordings together with functional magnetic resonance tomography and near infrared spectroscopy. Such approaches may help to define more precisely the critical periods during which particular brain functions develop and to design adapted strategies for the optimization of experience-dependent developmental processes.

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Renate Zimmer

Using the Body to Discover Language: Fun Approaches to Language and Literacy

From the very first day of life, physical movement is what drives a child's development and learning – something that is also true of language acquisition. Early childhood development is a process that is largely influenced by an active, sensory engagement with the world, engagement that is embedded in a child's social interaction with its environment. The basis for social interaction is the child's ability to enter into relationships and communicate with others. This occurs from day one through verbal and nonverbal means, through gestures and facial expressions and through body language.

Bruner (2002) notes that as they discover language, children also learn about the culture they will live in. Adults transmit this culture to children, which remains highly significant during each step of language acquisition. For children, processes of perception and movement similarly gain a cultural and social aspect. Gestures and facial expressions – the building blocks of body language – are culturally specific, personal means of communication that are acquired in a given social context.

Movement: The Engine That Drives Language Acquisition

Even before they can express themselves through language, children already have an understanding of the nature or function of the objects around them. Based on their experiences perceiving and moving, during which they discover correlation, children know, for example, that a ball is round, rolls on the floor and bounces into the air when dropped. That allows the experiences gained by interacting with the world to combine with language and become *concepts*. These concepts allow children to create an internal depiction of the world (Zimmer 2010). Children experience temporal concepts such as "slow" and "fast" and spatial concepts such as "high" and "low" through, among other things, interactive movements that they vary in terms of time and space. They thus expand their vocabulary and acquire the foundation for understanding linguistic classifications.

As part of meaningful, relevant situations, in which verbal and nonverbal aspects are combined, children learn how to use their body and language as a medium for engaging with the world. Aided by language, they significantly expand their abilities to act and interact. While it was previously only possible to have an impact on their environment in physical terms, they can now do so using language: Social contacts are initiated through language; play-related situations are planned and modulated using linguistic exchanges.

Our research has focused for quite some time on the ways in which movement activities can give rise to and support children's language development and, conversely, on how verbal expressions can be the catalyst for movement. The following presents some of the findings from a current project that promotes linguistic competence within the context of the everyday preschool environment.

Moving Language

The research project "Bewegte Sprache" (Moving Language) focuses on language acquisition and language promotion among children as part of daily preschool activities. Instead of isolated training of individual speech functions, as is often the case with language-promotion programs, the approach here makes use of the children's own natural physicality in everyday contexts to promote language acquisition and skills. The youngsters' daily playtime and physical activities are used to address language needs, as are specially designed activities that make targeted use of movement (see Zimmer 2010).

As part of the research carried out in conjunction with the project, the impact of movement-centered language promotion on different areas of language development among three- to five-year-olds was examined. The observation period was 10 months, during which a movement program was carried out in 10 kindergartens with a total of 244 children, a program designed to promote the areas of language development (vocabulary enlargement, prosody, phonology and general communications skills) in particular (Zimmer 2010). The instructors were trained in the approach during regular professional development seminars and

using written background materials; they also received regular support from project assistants for their pedagogical efforts. The control group consisted of 135 children from three child-care centers, who did not receive any project-specific interventions, but simply engaged in their normal everyday activities.

A language screening (Sprachscreening für das Vorschulalter, SSV; Grimm 2003) was carried out among all children at the beginning and end of the observation period. The evaluation of the collected data clearly suggests that the children benefitted from the Moving Language approach, with youngsters participating in the program exhibiting significantly higher SSV scores than those in the control group.
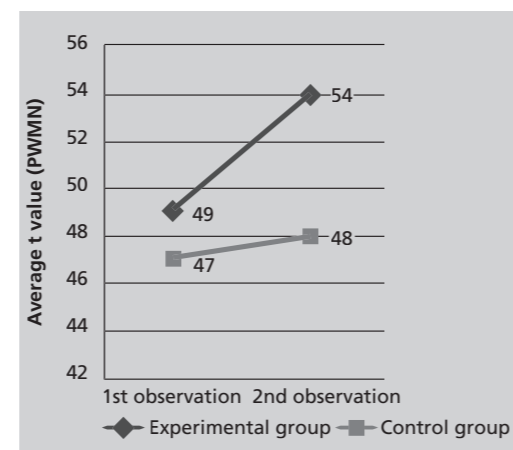
Fig. 1 Change in average language-test score (SSV) for phonological working memory, nonword repetition (PWMN, t values) among four- to five-year-olds; first and second observation among experimental and control groups

Noticeable improvements were seen among those children whose initial scores were among the lowest 16% in their age group

for phonological working memory, a key component of language development. The scores of the group participating in the language-promotion program were significantly higher than the control group (Fig. 2; see Zimmer 2010).
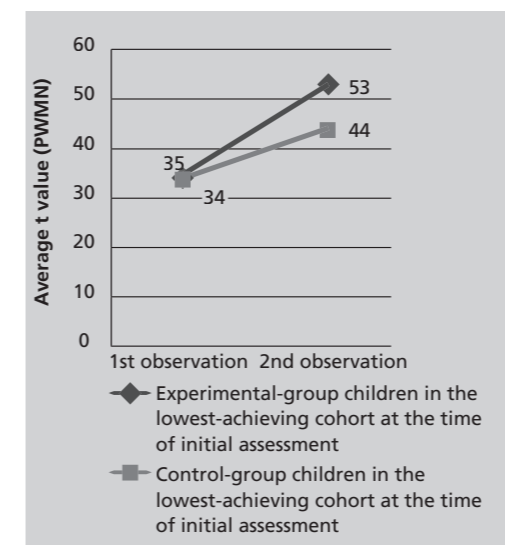
Fig. 2 Change in average language-test score (SSV) for phonological working memory, nonword repetition (PWMN, t values) among four- to five-year-olds in the lowest achievement cohort; first and second observation among experimental and control groups

Movement and Literacy

Access to literacy experiences can also be promoted by activities that make use of the body and movement. The project "Geschichten bewegen" (Moving Stories) does this by making innovative and lively use of reading-aloud and storytelling activities. The participation of educators and librarians in equal measure allows the project to create partnerships between preschools, schools and libraries, which work together to

promote early literacy experiences and, as a result, language and movement skills.

Moving Stories

The project is called "Geschichten bewegen" (Moving Stories), and the name can be understood in two ways. On the one hand, children can use their creative potential to actively introduce movement into stories and to process content through corporeal expression. On the other, they can allow themselves to be moved by the stories – both emotionally and physically. The impressive and expressive functions stories offer have been refined to a high degree in the project's individual modules. The project's goal is to promote movement as a fun, aesthetic, speech-enhancing medium that can be used in reading-aloud and storytelling situations with children in preschools and schools.

The interdisciplinary effort involving library, movement and music specialists as well as educators has given rise to the idea of a "moving library," which serves as an educational partner for preschools and schools as well as a traditional setting for stories. This new model makes it possible to increase the role of libraries as a quality learning environment within a regional educational landscape.

Stories That Move Children: Konrad the Kangaroo and Rita the Racing Mouse

One example of how the three areas critical to early childhood education – language, literacy and movement – come together as one can be seen in the stories of Konrad the Kangaroo and Rita the Racing Mouse (Zimmer 2013). Their point of departure is children's desire to be physically active and the joy they experience when playing with language. The stories increase their interest

in engaging with books and stories. They increase children's curiosity and enchant them, while allowing them to identify with the two main characters. In addition, the stories can be used for both movement and speech activities. They encourage children to express themselves through their bodies and to make use of language in its multifaceted forms (verbal and nonverbal).

Konrad and Rita are the stories' main characters. They each have their own distinct behaviors and movements; they are wild and rambunctious or quiet and reserved. Each story is an invitation to get involved in the plot and to identify with one of the figures and his or her characteristics: either Konrad, the slow, considerate kangaroo, who tends to be somewhat scared, sluggish and plodding and who doesn't really like to move, or Rita, the crafty racing mouse, who is always trying to keep her friend Konrad on his toes. Rita is extremely fast and courageous; she can't sit still, is jumpy and sometimes a bit imprudent. And since she often can't stop in time, she occasionally gets a bump or two. Konrad and Rita start off on an adventure together, pass the "brake test" for racing mice and participate in a long-jump contest for kangaroos.

The tales of Konrad and Rita are short stories with brief plots that children can easily comprehend. They inspire children to be ver-

bal and to participate in movement-based games. They create an enjoyable setting for combining listening, speaking and movement activities. They introduce children to picture books and texts that help them use their imaginations. Finally, they provide a cohesive context for movement, perception, language and literacy, areas that are critical to childhood development.

Once the reading-aloud and listening activities are over, the stories also provide the possibility of returning to the subject matter to reenact, change and refine it. The children can take on specific roles, replay various scenes, actively execute the described movements, reconsider the subject matter and invent new movements. In doing so, not only do the stories stimulate motor activities, they also provide children with myriad opportunities for discovering language. Rita not only runs, she can also hop, jump and tiptoe. The illustrations inspire the children to use their imaginations to develop the stories further and come up with additional ideas. Konrad, for example, is a somewhat heavy, cumbersome kangaroo, which means Rita has to call several friends to her aid to get the seesaw he is sitting on to move.
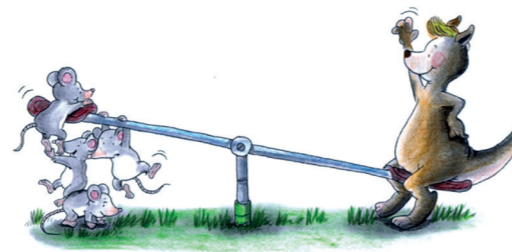
If literacy, language and movement are not only seen as discrete educational subjects, but as one interdisciplinary whole that must

be addressed by educational efforts within preschool and elementary institutions, it would then be advantageous if "in addition to the already established culture of reading aloud to children, greater focus were put on storytelling in libraries in a manner that extends to home life, kindergartens and schools and that reflects knowledge gained in the areas of language and movement and holistic learning, including all of the senses" (Keller-Loibl 2009, 106). Language, literacy and movement must be seen as one context and cannot be dissociated from each other within everyday educational situations (Zimmer 2010).

The movement activities that either arise situationally from the stories or are explicitly staged can be, for children, multifaceted opportunities for speaking and for expanding and further differentiating their language abilities. Each playful idea offers the possibility of both movement and speech. Situations thereby become speech-oriented, transforming opportunities for play into multifaceted language-learning moments. Conversely, language-based activities can become opportunities for movement. Describing a situation, for example, can be accompanied by gestures; similarly, a roleplay, which comes alive through the verbal communication of those participating in it, can also be expressed physically.

For children, language and movement are key methods of learning, expressing and communicating. The basic goal of movement-oriented language promotion for children should consist of creating an environment that offers a wide range of possibilities for expressing oneself and being active, an environment that allows children to make equal use of their body, voice,

movement and language in order to discover more about themselves and those around them. The preferred medium should be play. It creates situations for movement and speech that help expand the repertoire of physical and verbal capabilities as well as the repertoire of movement.

Movement thus offers the potential for promoting development, especially language development in the first years of life. The language-promoting effect arises in a relatively indirect manner, deriving above all from the diverse opportunities for producing speech that result from looking at pictures, listening to stories and discovering books, and from the possibilities of play and physical movement that ensue. Its impact is seen most of all in settings that motivate youngsters and engage their sense of fun by seamlessly combining movement and language.

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Christopher J. Lonigan

The Developmental Significance and Development of Early Literacy Skills

Literacy skills are the foundation for children's success in school and beyond. In a literate society, literacy skills serve as the basis for the acquisition of knowledge in multiple domains both in school and throughout life. Well-developed literacy skills have become increasingly important as employment opportunities have shifted toward technology and information-oriented jobs. Consequently, it may be that there is not a more important educational attainment than the acquisition of reading and writing skills. Many children acquire these skills early in their school experiences and maintain them throughout school. However, some children struggle with learning to read, and their difficulties with reading have significant negative consequences on their educational attainment. Understanding the early developmental antecedents of reading is important because it allows monitoring and intervention before children experience substantial problems.

Developmental Precursors of Reading
Several decades of research on reading and reading-related skills have identified many of the core skills that underlie skilled reading. To understand the acquisition of reading skills, it is useful to consider reading as being made up of two domains of skills. Code-related skills are those that represent the mechanics of "decoding" print into the language it represents. Meaning-related skills are those that represent processes associated with understanding that language within a specific context. This basic model describing reading is codified in the Simple View of Reading (SVR; Hoover and Gough 1990), which states that skilled reading is the product of decoding skills and language skills (e.g., listening comprehension), both of which are necessary subcomponents.

Early in the process of learning to read, decoding skills are central; however, around third grade, reading comprehension emerges as an independent construct. Data from one of our recent studies of children in preschool through fifth grade in the US confirm this view (Lonigan and Schatschneider 2013). As part of a larger study, about 250 children per grade completed multiple measures of decoding and reading comprehension. Confirmatory factor analysis revealed that a single factor best accounted for all measures for children in preschool through second grade, indicating that even measures purported to assess reading comprehension primarily assessed children's abilities to decode the text at these ages. In contrast, confirmatory factor analysis revealed that distinct decoding and reading comprehension factors were necessary to account for the measures for children

in third through fifth grades. Analyses of component skills that explained the older children's skills revealed that well-measured decoding and language skills accounted for almost 100% of the variance in reading comprehension, consistent with the SVR.

The findings from this study are consistent with the findings of a meta-analysis conducted by the National Early Literacy Panel (NELP; Lonigan et al. 2008a) that included the results from approximately 300 peer-reviewed, published studies including an assessment of a potential early literacy skill measured in preschool or kindergarten and an assessment of a conventional reading skill (i.e., decoding or reading comprehension) measured in kindergarten or later. Table 1 provides a summary of the results of this meta-analysis for the conventional literacy outcomes of word decoding and reading comprehension, grouped by category of predictor variable. The results show the significant continuity of these skills from an early age. Skills within the print-knowledge domain, particularly alphabet knowledge, were moderate to strong predictors of all conventional literacy skills. Within the phonological processing domain, phonological awareness and rapid-naming measures were moderate predictors of all conventional literacy outcomes. Measures of oral language were also moderate predictors of conventional literacy outcomes. Follow-up analyses of results for oral language revealed that these skills were significantly stronger predictors of reading comprehension than of word decoding.

Most of the studies included in the NELP meta-analysis were relatively short-term longitudinal studies with one to two years between assessments; however, Lonigan and Shanahan (2010) showed that the general pattern of findings held over longer periods of time (i.e., intervals of 3 to 10 years between initial and

later assessments of reading outcomes). Other studies, often not published in peer-reviewed journals, have been conducted that include very large samples and focus on more global sets of competencies than were the focus of the NELP's meta-analysis. Duncan et al. (2007) reported the results of longitudinal analyses of data from six such studies that included data on between 700 and 10,000 children who were enrolled as early as three years of age. Each study measured early literacy skills at the preschool or kindergarten assessment and reading skills at some later grade (e.g., third or fifth grade). Duncan et al. found significant continuity between children's early reading skills and children's reading achievement at the later measurement periods. The average correlation between early and later skills was .44, and this predictive relation was maintained when measures of various child, family and study variables were controlled in the analyses.

Influences on the Development of Early Literacy Skills

All of these skills are developing well before children enter formal school or other educational environments. In fact, the results of the predictive studies summarized above suggest that a significant part of the developmental continuity of literacy skills has its genesis in this period. Consequently, it is important to develop an understanding of the influences on the development of these skills – before children enter formal school and instruction in reading starts. Research indicates that the early development of these literacy-related skills is influenced by several factors, including biological factors (Byrne et al. 2006) and environmental factors, including more language-rich home and school environments, direct teaching of skills by parents and teachers, and children's emerging self-regulation abilities.

Home Environments

Young children's home environments are associated with the development of early literacy skills. Research indicates that development of different early literacy skills are the product of different environmental experiences. Code-related skills require some degree of environmental support, such as exposure to alphabet knowledge, which many children experience through interactions with parents surround books and print. Meaning-related skills (i.e., oral language) seem to require exposure to language in some form of contingent and interactive exchanges with parents or others in the home. The landmark study of Hart and Risley (1995) reported that in homes where parents spent more time talking with their children, children had substantially larger vocabularies.

The prototypical and iconic aspect of early literacy exposure, shared book reading, provides a potentially rich set of opportunities for children to learn early literacy skills. Evidence suggests that shared reading does foster vocabulary development with preschool children (e.g., Sénéchal et al. 1996; Whitehurst and Lonigan 1998). Sénéchal et al. (1996) also reported that other aspects of the home literacy environment (e.g., number of books in the home, library visits, parents' own print exposure) were related to children's vocabulary skills, but Payne et al. (1994) reported that adult literacy activities in low-income households (e.g., the amount of time a parent spends reading for pleasure) were not significantly related to children's oral language, which was best predicted by activities that directly involved the child (i.e., frequency of shared reading, number of children's books in the home, frequency of library visits with child).

Shared reading experiences in the preschool period do not appear to have direct effects

on other early skills (e.g., Raz and Bryant 1990). Sénéchal et al. (1998) reported that young children's written language knowledge (i.e., print concepts, letter knowledge, invented spelling, word identification) was associated with parents' attempts to teach their children about print, but not with exposure to storybooks. In contrast, children's oral language skills were associated with storybook exposure, but not parents' attempts to teach print. Evidence does suggest that exposure to alphabet books increases children's code-related skills (e.g., Murray et al. 1996) and that learning of code-related skills is increased when adults specifically highlight aspects of the text (Justice and Ezell 2000).

Direct Teaching

For children with lower levels of early literacy skills than expected, there is growing evidence that their skills can be improved with developmentally sensitive instruction. As noted above, different experiences in the home appear to have influences on different aspects of children's early literacy skills, and data from intervention studies also indicate that different interventions are necessary to increase skills in different early literacy skill areas. Instructional activities that focus on children's code-related skills (i.e., teaching phonological awareness or letter knowledge) can have large positive impacts on these skills, including effects on decoding skills (Lonigan et al. 2013; Lonigan et al. 2008b).

Most studies examining interventions for oral language skills have focused on shared-reading interventions. There is limited evidence that simply reading books to children as an intervention has a substantial influence on children's language skills; however, a particular type of shared reading – dialogic reading – has been shown to be an effective intervention for children's language skills when

done by either parents or teachers (Lonigan, Shanahan and Cunningham 2008). Dialogic reading differs from typical shared reading because, rather than simply reading a book to children, the adult uses the book to have a supported conversation with children about the book by asking children to label and describe the pictures and by providing feedback on children's responses as well as models of good descriptions. Overall, however, the effect sizes for instruction intended to improve children's language skills are small to moderate (Marulis and Newman 2010).

Self-regulation

A relatively recent research focus has been on the linkages between children's self-regulation skills and their academic achievement. Self-regulation includes behaviors associated with executive functioning (EF) and attention. There are three dimensions of EF: inhibitory control, working memory and shifting (Lehto et al. 2003; Miyake et al. 2000). EF is most commonly measured by direct assessments of children's abilities to inhibit a prepotent response (e.g., Stroop-like tasks, which measure inhibitory control), to immediately recall information after engaging in some manipulation of the information (e.g., reciting a list of numbers in the reverse order of presentation, which measures working memory) and to adapt successfully to changing rules in a task (e.g., switching responses to a stimulus based on a superordinate stimulus, which measures shifting). Attention is typically measured by parent or teacher reports of children's behavioral manifestation of attention and on-task behaviors.

Measures of EF – typically inhibitory control, working memory or both – are significantly related both concurrently and longitudinally with children's literacy-related skills both in early childhood (e.g., Blair and Razza 2007;

McClelland et al. 2007) and in elementary school (e.g., Locascio et al. 2010). A large literature indicates that problems of inattention are related to both poor reading outcomes (e.g., Duncan et al. 2007) and identified reading disabilities (e.g., Willcutt and Pennington 2000), and these links are present from the preschool period forward (e.g., Lonigan et al. 1999). Although the specific components and mechanisms of the links between self-regulation and literacy skills are still being worked out, it may be that higher levels of EF allow more efficient cognitive processing of information, quicker resolution of cognitive conflict (e.g., competing meanings of words, phrases) and retention of larger "chunks" of information in memory to associate with existing knowledge. Behaviorally, higher executive functioning may lead to greater attentional focus on relevant information, resulting in more time on task in learning contexts.

Summary

Literacy skills provide children with a fundamental tool to succeed throughout life. There is strong continuity in literacy skills that emerges prior to children's entry into formal educational environments. Consequently, efforts to identify the developmental trajectories of children prior to school entry and to understand environmental factors that influence the development of early literacy skills hold the promise of helping children develop a strong foundation for reading and avoid the negative consequences of struggling with the acquisition of reading. Skilled reading involves both code-related skills and meaning-related skills. Although these skills emerge at different points in the acquisition of reading, the developmental precursors of these skills are present early in children's lives. Results from longitudinal studies highlight the

importance of early literacy skills, and they point to a substantial role – both direct and indirect – for oral language skills in becoming a skilled reader. Research on the developmental origins of early literacy skills suggests that these pathways should be a focus of parents and early childhood educators to ensure that all children are successful.

Summary of Results from Meta-Analysis of National Early Literacy Panel: Average Zero-Order Correlations Between Predictor Variables and Conventional Literacy Skill Outcomes

	Predicted Outcome	
Predictor Domain		
Specific Skill Used as Predictor	Word Decoding	Reading Comprehension
Conventional Literacy Skills		
Decoding Real Words	.52	.41
Decoding Nonwords	.72	.40
Spelling	.60	---[a]
Print-Related Skills		
Alphabet Knowledge	.50	.48
Concepts About Print	.34	.54
Writing/Name Writing	.49	.33
Print Awareness	.29	.48
Environmental Print	.28	---[a]
Reading Readiness[b]	.50	.59
Phonological Processing Abilities		
Phonological Awareness	.40	.44
RAN Letters/Digits	.40	.43
RAN Objects/Colors	.32	.42
Phonological Short-term Memory	.26	.39
Oral Language Skills	.33	.33
General Abilities		
Full-scale IQ	.45	---[a]
Arithmetic	.45	.35
Performance IQ	.30	.34
Visual Skills		
Visual-Motor Skills	.25	.22
Visual-Memory Skills	.22	.17
Visual-Perceptual Skills	.22	.26

Note: RAN = Rapid Automatized Naming. [a] No or insufficient studies with predictor variable. [b] These measures were typically a combination of alphabet knowledge, phonological processing and oral language skills.

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Eve V. Clark

Early Language Development, Words and Books

Since the 1960's, there has been renewed interest in and extensive research on children's language, and on the stages children go through in the course of learning a first language and learning how to use it. From this research, we can identify several general stages that all children acquiring a first language will go through:

(a) Babbling, emerging between 6 and 10 months
(b) Production of first words, emerging between 10 months (early) and 20/24 months (late), e.g., /mama/, /papa/, /ba/ "bottle", /do/ "dog", etc.
(c) Production of two-word combinations, emerging between 14 months (early) and 24/26 months (late), e.g., *ball there, want outside, where baby?, mitten no*
(d) Production of longer utterances, up to five or six words long, with a growing range of syntactic constructions, including coordinate, relative, temporal, causal, conditional, and complement clauses, between the ages of two and four years, e.g.,
– *coordinate clauses*
    Ch (3;2, in classroom) *I want to look at them* [= visitors] *and come back in*.
    Ch (3;6, playing on some boxes) *I jump and I fall*.

– *relative clauses*
    Ch (2;0) *here a doll* <u>Shelli give Damon</u>.
    Ch (2;5, hearing a truck outside) *I go outside see a truck may have dirt in it*.
– *temporal clauses*
    Ch (2;1) *I get bigger, I drink tea*.
    Ch (2;5, being put down for a nap) <u>When you close the door,</u> *then I can kick my blankets off*.
– *causal clauses*
    Ch (2;4, of toy dog) *Danny can't say woof-woof* <u>because he got his mouth shut</u>.
    Ch (3;6, in play house) *They can't come here* <u>'cos we're sweeping up</u>.
– *conditional clauses*
    Ch (2;9, asking for specific T-shirt) <u>If it's not got writing on it</u>, *it's not my Levi's shirt*.
    Ch (2;11) <u>If I talk too much</u>, *I be tired from doing that*.
    Ch (3;7, of staircases) <u>If we had one step instead of two steps</u>, *our house would have been small*.
– *complement clauses*
    Ch (2;0) *I want* <u>go out</u>.
    Ch (3;2) *I know* <u>he sit right there</u>.

From child utterances like those in the examples just listed, we know that children can produce a range of syntactic forms by 3;6

to 4 years, but they often still lack some of the features of the analogous adult utterances. In highly inflected languages with cases systems, for instance, children may opt for a single form of a noun and use that in all contexts where an adult would use the nominative form in some constructions, the accusative in others and other case-marked forms in still others. Children also typically start out with just one form of each verb, and they use it for fairly appropriate instances of the event-type, but have yet to acquire the appropriate inflections for such dimensions as person, number or tense. Their choices of pronoun-form are often wrong (they produce *me* for *I*, and *he* for *she*, for example), and they often regularize irregular nouns and verbs (e.g., in English *childs for *children*, *mans for *men*, and *foots for *feet*; and verbs are made into past tense forms like *sitted for *sat*, *buyed for *bought*, and *see'd for *saw*). Children initially omit most function words like articles (*a*, *the*), prepositions (*in*, *at*, *off*, *above*), relativizers (*who*, *that*) and conjunctions (*when*, *after*, *while*). And, in many languages, they make mistakes in word order along the way (e.g., in English: *enough big for *big enough*, or *those some books for *some of those books*). In short, getting all the details right – learning the conventions for how to convey the meanings they intend with the right words and the appropriate constructions takes several years, with some constructions not fully acquired until age 12 or 14 (see Clark 2009).

Among the general goals we might characterize for children learning to understand and speak a first language are general mastery of the vocabulary of the language, mastery of the syntactic constructions using that vocabulary and mastery of usage in the speech community. This includes learning how to be

polite – and making that work for you in negotiations of all kinds, from simple requests to elaborate business deals – how to justify and explain things, how to give instructions and directions, how to tell jokes or make puns and how to tell stories.

When we simply look at vocabulary, we can see that it poses an immense challenge in terms of learning. Children must learn the form(s) of each new word, link the word to others in the relevant semantic domain and learn how to use it appropriately. Children's vocabulary increases steadily in size with age and, it turns out, with the amount of exposure children get early on, in interaction – in conversational exchanges with more expert speakers, usually adults, as well as with adults reading to their children, from an early age onwards. Interactive exchanges require taking account of what others know and tracking what is in common ground. In the course of any interaction, one accumulates common ground, and participants observe Grice's 1989 Co-operative Principle: "Make your conversational contribution such as is required, at the stage at which it occurs, by the accepted purpose or direction of the talk exchange in which you are engaged." Reading a book requires joint attention, talk about the pictures, and responses to children's gestures and questions about what can be seen in picture books.

By 12 months, a few children can produce one or two recognizable words, often some early variant of *mama* or *papa* (Jakobson, 1962, attributed adult recognition here to parental vanity: Your child should recognize you, the parent, first). By age two, children produce anywhere from 200 to 600 words, and their comprehension is typically far in advance of any ability to say the words

themselves. By age six, children may understand as many as 14,000 words. To get to this level between age one and six, they have to have added some nine words a day, but, of course, that rate of acquisition does not imply acquisition of the full conventional meaning in each case; this can take years of gradually adding to and adjusting the meaning of a word. From then, children are estimated to add some 3,000 new words a year while in school, and from age 12 to age 17, they are exposed to some 10,000 new root-and-affix combinations in school textbooks. The outcome, for adults who have acquired English, is an estimated vocabulary range of 50,000 to 100,000 words. Such estimates, of course, will differ with language, culture and social class.

In talking with their children, adults offer young children "scaffolding" that frames the minimal contributions from a one- or two-year-old, as in (1):

(1) D (1;6.11, encouraged to tell his father about an earlier episode when a budgerigar had landed on his head):
      Mo: Did you see Philip's bird?
          Can you tell Herb?
      D: *head. head. head.*
      Mo: What landed on your head?
      D: *bird.*

In conversation, adults offer feedback for errors and on occasion make explicit offers of new words. When children make errors, adults offer feedback by reformulating what the children seemed to intend in a conventional way. In fact, they do this in response to up to 60% of children's erroneous utterances before age 3;0 to 3;6, either using side-sequences in which they check up on what the child meant by reformulating that intention

in a conventional way, with rising intonation to elicit agreement (or disagreement) from the child, or using embedded corrections where the adults substitute the correct word or word-form, say, in their repetition of what the child just said. Children attend to such "checking up" in conversation, repeating or acknowledging the repair offered by the adult (Chouinard & Clark 2003).

Adults also offer some new words explicitly, often in response to a child's overt *What's that?*, or just a point, as in (2):

(2) Ch (1;7, pointing at picture of kangaroo in book):
      Mo: Yeah. (laughs) It's called a kangaroo.
      Ch: *roo.*

Children typically respond to such offers by trying to repeat the new word in their next turn, and thereby acknowledging it. This response to an offer also provides the child with an opportunity to try to produce the word as well (Clark 2007). Adults often then continue, adding information about the referent of the new word, about its properties and parts, about how it moves or what it is for, information on where it can be found and what else it may be related to. This all plays a role in how children organize and re-organize both their emerging lexical knowledge and their growing knowledge about the world. And books promote this kind of interaction (see Moerk 1985).

Communicative interaction, then, provides a critical setting in which children learn to use language and where they get both considerable feedback and extensive practice. Recent studies have shown that the more interaction of this kind there is, between young children and their parents or careta-

kers, the larger the children's vocabulary and the faster they can add new words to that vocabulary (Hart and Risley 1995; Walker et al. 1994; Fernald and Marchman 2012). The effects of early interaction endure into the early school years and so affect children's progress and success in school.

What do these findings imply for promoting early literacy? First, talk to your children – a lot – from the start. Second, make use of books, again from the start (age one onwards, let's say), as an occasion for interacting and talking both about everyday objects and events and about all the things that children may initially experience only through books. Interacting while looking at books leads even very young children to request labels, and adults then supply all kinds of other information as well. These activities promote general awareness of sounds and of words. They also promote awareness of the continuity in a story through the objects and characters that appear and reappear from one page to the next. This continuity with recurring pictures is further supported by continuity in the words used to refer to each character and its activities. These recur along with the relevant pictures. All of this builds on what children already know at each stage, and it is children's early language acquisition – their acquisition of fluent understanding and fluent speaking – that provides a foundation for extending their skills from understanding and speaking to eventually reading and writing across domains, topics and styles in a literate society.

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Margarete Imhof

The Point of Departure: Listening as the Basis for Literacy Development

1. Listening Is the First Language Skill

Auditory reception of speech is the first language skill of every infant. This makes listening the base of language learning: "Perceptual abilities … form the gateway to spoken language" (Mueller, Friederici and Männel 2012, 15 953) and impairment of low-level auditory processes during early development is correlated with language learning difficulties through childhood, adolescence and adult life.

Listening development occurs across the stages of *auditory awareness*, *auditory discrimination* and *auditory recognition* and *listening comprehension* (Jalongo 2010, 3f.), i.e., the process of intentionally selecting, organizing and integrating information from verbal and nonverbal signals of an oral message (Imhof 2010). Based on their listening experience, children learn to speak and, what is more, to conceptualize and understand the social and material world around them.

2. The Contribution of Listening to Literacy Development

2.1 Components of Literacy Involved in Listening

Listening skills in infancy contribute to language development on two levels. Level 1 comprises language learning in a narrow sense, namely *language and cognition* and *language and emotion*. Level 2 comprehends personal *self-regulation* and *social skills* (see Figure 1 for details).

2.2 Research Findings on Listening Development

The first component of listening is auditory perception. Infants from the age of three months on react to deviant pitch and learn phonetic rules of a language (Marie and Trainor 2013; Mueller et al. 2012). Early auditory and oral language problems were found to persist and to correlate with an overall literacy delay in third grade (Vandewalle, Boets, Boons et al. 2012). Speech perception in grade one was found to be the best predictor for reading development (Vandewalle, Boets, Ghesquière et al. 2012). Also, listening comprehension is related to memory skills in preschoolers (Florit, Roch, Altoè and Levorato 2009) and to attention regulation as children with listening comprehension difficulties report poor attention switching and selective focusing (Dhamani, Leung, Carlile and Sharma 2013).

Infants learn their native language by discovering features of the speech signal from being exposed to spoken language.

Level 1 Receptive and Expressive Language Skills	Language and cognition	Auditory discrimination Phonological knowledge Understanding of prosody, word and phrase segmentation Vocabulary, semantic and syntax knowledge Memory (long-term, working memory) Monitoring and critical thinking
	Language and emotion	Perceive and distinguish emotional states of self and others Emotion regulation while listening Integrate verbal and nonverbal expression of emotions
Level 2 Intra- and Interpersonal Skills	Self-regulation	Focus and switch attention Emotion regulation Building interest and motivation, persistence
	Social skills	Empathy and perspective taking Understanding intentions and persuasion Understanding and observing conversation rules

Fig. 1: Aspects of listening development in early education.

First, they acquire an implicit knowledge of the sound system of the language, the tone and prosody (Bergelson and Swingley 2012; Swingely 2009); later they become aware of onsets and rime and segment speech into syllables and sounds. This understanding develops into phonological awareness which is a prerequisite for formal language learning, such as reading and spelling (Goswami 2010). At the age of about eight months, infants are able to locate word boundaries and to select syllables from speech (Teinonen, Fellman, Näätänen, Alku and Huotilainen 2009). By the age of about two years, they understand and use syntactic rules from exposure to speech

(Yuan and Fisher 2009). From the age of nine months on, infants develop a capacity for interpreting others' goals and intentions (Bergelson and Swingley 2012). The critical factor for language development is the amount and the quality of the language input provided by educators (Adrián, Clemente and Villanueva 2007; Grammer, Coffman and Ornstein 2013; Zimmerman et al. 2009).

2.3 Principles and Implications for Intervention

Research suggests that, essentially, a social context rich in oral language forms the necessary basis for listening and language

development. As caregivers provide varied speech input from early on, they stimulate auditory discrimination, both concepts and vocabulary learning, phonetic skills and perception of affect and emotion. Reading aloud to children is a very impactful instrument to support scope of vocabulary, syntactical awareness, sustained attention, experience of language and emotion (Lawson 2012; Sinatra, Zygouris-Coe and Dasinger 2012).

Engaging in two-way adult-child conversations builds speaking and expressive language skills. Infants or children at risk of language impairment may need support to decrease processing demands by using emphasis, signaling strategies (words, tone, signs) and simplification (Grela, Collison and Arthur 2011). Adaptive two-way conversation helps the children to learn perspective taking and to understand motives and intention of the other.

The use of longer narratives will foster a child's memory capacity, attention regulation (focusing and switching) and monitoring skills, e.g., to check understanding and to use their own creativity to explore a story. Narratives may also stimulate active language use and encourage rehearsal strategies, focused attention and linguistic expression.

3. Perspectives for Practice and Research
Many of the everyday activities between children and caregivers involve language exchanges and, naturally, contribute to language development. To lay a sound foundation for language and literacy skills means raising awareness of the importance of practicing listening skills from early education on and strengthening competencies of educators to diagnose and to systematically foster listening skills.

4. Conclusion and Future Perspectives
Listening skills represent the first and basic language competency and it contains long-term developmental implications. Authentic, varied and developmentally adjusted listening tasks foster listening skills, which eventually facilitate language learning and the acquisition of world knowledge and interpersonal competence.

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Early Literacy Education –
Concepts, Practice and Meaning

Susan B. Neuman

Explaining and Understanding Early Literacy

The last decade has brought a growing consensus on the range of skills that serve as the foundation for reading and writing ability (Neuman and Dickinson 2011). To become a skilled reader, children need a rich language and conceptual knowledge base, a broad and deep vocabulary, and verbal reasoning abilities to understand messages that are conveyed through print. Children also must develop code-related skills, an understanding that spoken words are composed of smaller elements of speech (phonological awareness), the idea that letters represent these sounds (the alphabetic principle), the many systematic correspondences between sounds and spellings, and a repertoire of highly familiar words that can be easily and automatically recognized.

Yet to attain a high level of skill, young children need opportunities to develop these strands, not in isolation, but interactively. Meaning, not sounds or letters, motivates children's earliest experiences with print. Consequently, it is important to recognize that in practice, children acquire these skills in coordination and interaction with meaningful experiences. Given the tremendous attention that early literacy has received recently and the increasing diversity of the child population in most countries, it is

important and timely to take stock of these critical dimensions as well as the strengths and gaps in our ability to measure these skills effectively.

In the following sections, I describe the critical dimensions of early literacy and the implications for high-quality practices in the early childhood setting.

The Critical Dimensions of Language and Literacy in Early Childhood Language
Verbal abilities are consistently the best predictors of later reading achievement (Beck and McKeown 2007). Skilled readers typically draw upon multiple levels of the language system, with abilities encompassing vocabulary, syntax and discourse. Vocabulary size in optimal settings may increase exponentially in the early years (some estimate about seven words a day), with children learning to comprehend words spoken to them before they are able to produce them on their own. Word knowledge, however, is not just developed through exposure to increasingly complex language, but to knowledge-building language experiences (Neuman 2006) that involve children in developing and refining networks of categorically-related concepts.

With opportunity and practice, children's word knowledge is put to use in syntactic structures that grow in length and complexity. Children's sentences often start at two words, but quickly lengthen to four or more words as children communicate their ideas increasingly through language. Snow and colleagues (Snow, Baines et al. 1991) have shown that conversations that are physically removed from immediate objects or events (i.e., "what if?") are tied to the development of abstract reasoning, and related to literacy skills like print production and narrative competence.

With word learning occurring so rapidly, children begin to make increasingly fine distinctions of words not only based on their meaning but also based on their sound. They begin to make implicit comparisons between similar sounding words, a phenomenon described by linguists as lexical restructuring (Metsala 1999). For example, a two-year old child probably knows the words "cat" from "cut" and "hot" from "not." Distinguishing between these similar sounding words both quickly and accurately, children begin to hear sequences of sound that constitute each known word. Children with large vocabularies become attuned to these segments and acquire new words rapidly; children with smaller vocabularies may be limited to more global distinctions. Consequently, vocabulary size and vocabulary rate are important for lexical restructuring (i.e., making sound distinctions between words) and are strongly tied to the emergence of phonological awareness.

Phonological Awareness

Based on a massive body of research (Lonigan 2006), phonological awareness is a critical precursor, correlate and predictor of children's reading achievement. Discriminating units of language (i.e., words, segments, phonemes) is strongly linked to successful reading (National Reading Panel Report 2000). It is, however, as described above, both a cause and a consequence of vocabulary development and learning to read. Typically developing children begin first to discriminate among units of language (i.e., phonological awareness), then within these units (i.e., phonemic awareness). Phonological awareness refers to the general ability to attend to the sounds of language as distinct from its meaning. Phonemic awareness is the insight that every spoken word can be conceived as units of sounds that are represented by the letter of an alphabet.

Evidence suggests that children achieve syllabic sensitivity earlier than they achieve sensitivity to phonemes, and sensitivity to rhyme before sensitivity to phonemes. Children's entry to these skills typically begins with linguistic activities such as language games and nursery rhymes that implicitly compare and contrast the sounds of words, and include alliterative phrases (i.e., "bibbily bobbily boo" begins with /b/). But implicit comparisons alone may be insufficient. Phonological awareness and phonemic awareness are meta-linguistic abilities (Adams 1990). Children must not only be able to recite and play with sound units, they must also develop an understanding that sound units map onto whole or parts of written language.

Letter Knowledge

Knowledge of the alphabet letters is a strong predictor of short- and long-term reading success. However, its influence on later reading is not about knowing the letter names, per se. Rather, the learning of letter names mediates the ability to remember the sounds associated with the letters. Once again, there is a reciprocal relationship between skills: Letter knowledge plays an influential role in the development of phonological awareness, and higher levels of letter knowledge are associated with children's abilities to detect and manipulate phonemes. For example, the child who knows the letter "b" is likely to remember the sound of /b/. Consequently, letter knowledge may reflect a greater underlying knowledge and familiarity with literacy-related skills such as language and print.

Research indicates that children differentiate letters according to their visual form, that is, their horizontal, vertical and diagonal segments. Given the complexities of the visually distinct forms of letters (upper case, lower case, printed form), current learning theory suggests that simultaneously teaching two versions of letters with their confusable sounds and labels may be overwhelming to the young child. However, there is no substantial evidence to suggest which particular form (upper or lower case) should be taught first.

Background Knowledge

For children to become skilled readers, they will also need to develop a rich conceptual knowledge base and verbal reasoning abilities to understand messages conveyed through print. Successful reading ultimately consists of knowing a relatively small tool kit of unconscious procedural skills, accompanied by a massive and slowly built-up store of conscious content knowledge. It is the higher-order thinking skills, knowledge and dispositional capabilities that enable young children to come to understand what they are reading.

Children's earliest experiences become organized or structured into schemas, building blocks of cognition. Schemas provide children with the conceptual apparatus for making sense of the world around them by classifying incoming bits of information into similar groupings. Stein and Glenn (1979), for example, provided a compelling case for schemas and their usefulness for recalling information about stories. Well-read-to children internalize a form of story grammar, a set of expectations of how stories are told, which enhances their understanding. Knowledge becomes easier to access (Neuman 2006), producing more knowledge networks. And those with a rich knowledge base find it easier to learn and remember.

Quality indicators of a rich content base for instruction in early childhood programs include a content-rich curriculum in which children have opportunities for sustained and in-depth learning, including play; different levels of guidance to meet the needs of individual children; a masterful orchestration of activity that supports content learning and social-emotional development; and time, materials and resources that actively build verbal reasoning skills and conceptual knowledge.

Print Conventions

Recognizing that concepts about print in the English language are not intuitive, Marie Clay (1979), in her pioneering work with Maori children in New Zealand, identified a set of conventions that children could understand without being able to read. These

conventions included, among others, the directionality of print in a book (left-to-right, top-to-bottom, front-to-back), differences between pictures and print, uses of punctuation and definitional characteristics of a letter and a word. Knowing these conventions, she found, helped in the process of learning to read.

With the exception of a study by Tunmer and colleagues (Tunmer, Herriman et al. 1988) demonstrating the relationship of these skills to later reading success, there is, however, little evidence to suggest the predictive power of these skills for later achievement. Rather, print conventions act as an immediate indicator of children's familiarity with text and are not integrally related to the other language-based skills associated with reading success. Therefore, while such conventions might be helpful to young children in navigating through books, these skills may not in the long run play a powerful role in learning to read.

In sum, research supports a particularly strong linkage between oral language, phonological awareness, letter knowledge, background knowledge and, to a much lesser extent, print conventions in the preschool years. These skills are highly interdependent. Phonological awareness appears to influence vocabulary development and vocabulary rate. Letter knowledge supports phonological awareness. Code-related skills are highly predictive of children's initial early reading success while oral language skills and background knowledge become highly predictive of comprehension abilities and later reading achievement. Each of these skills, when integrated in meaningful activity, has an important role to play in children's literacy development.

Features of the Classroom Environment That Support Literacy Development
The environment can play a major role in promoting these critical skills for literacy development. The organization, structure and complexity of the early childhood setting influence patterns of activity and engagement. For example, a fairly sizable number of studies have revealed the powerful influence of access to literacy tools on young children's involvement in literacy activities. This research indicates that in settings carefully constructed to include a wide access of literacy tools, books and play materials, children read more and engage more in literacy-related play themes with resulting effects on literacy improvement.

The physical placement of objects influences children's engagement in literacy-related activity. Children become more involved in sustained literacy play when objects are clustered together to create a schema or meaning network. For example, in one study (Neuman and Roskos 1993), placing props associated with mailing letters together in a play setting (envelopes, writing instruments, stamps and stationery) led to longer play episodes than when these props were scattered throughout the room. Further, props that were authentic, familiar and useful to common literacy contexts, like telephones in the kitchen area, or mailboxes in the office area, encouraged more complex language interactions and routines.

The proximity of quality books at children's eye view supports involvement in literacy-like enactments (Neuman 1999). In one of our first intervention studies of its type, we examined the influence of creating library

corners in early childhood settings. These library corners were specially constructed to include the following elements: a clear location with well-defined borders; comfortable seating and cozy spots for privacy; accessible, organized materials; and related activities that extended whole- and small-group book activities. We found that the frequency of use rose significantly when library corners were made more visibly accessible and attractive. Library settings created to "put books in children's hands" engaged children in spending significantly more time with books when they were placed in close proximity to children's play activities.

Consequently, there is clear and abundant evidence that certain physical design features in environments support young children's literacy engagement and subsequent achievement. Physical design features, uses of space, and resources may help to focus and sustain children's literacy activity, providing greater opportunity to engage in language and literacy behaviors. This research indicates, therefore, that a more deliberate approach to the selection and arrangement of materials according to specific design criteria may enhance children's uses of literacy objects and related print resources.

Interactional Supports for Literacy Learning
Environments include not only physical settings, but psychological settings for literacy learning as well. Children are influenced by the participants present in a setting, their background experiences and their values, and it is the integration of place, people and occasion that support opportunities for learning. These individuals act as social

and psychological resources that provide information and feedback through demonstrations and interactions.

A great corpus of research (Neuman and Dickinson 2011) identifies the types of supports that promote children's language and literacy development. Essentially, they highlight both instructional and relational components. Since language represents the foundational basis for literacy learning in the early years, there is evidence that the amount of verbal input in settings enhances children's language development (Hart and Risley 1995). Children whose teachers engage them in rich dialogues have higher scores on tests of both verbal and general ability. This is especially the case when discussions consist of teachers encouraging, questioning, predicting and guiding children's exploration and problem-solving. Such verbal interactions contribute to children's vocabulary growth which, in turn, is strongly correlated with phonological awareness, comprehension and subsequent reading achievement.

Teachers also engage in activities that are highly supportive of literacy development. Reading stories to children on a regular basis is regarded as one of the more potent supports for literacy learning. Studies have shown that a teacher's style or approach to reading storybooks to children has both short-term and long-term effects on language and literacy development. Shared book reading activities, such as dialogic reading (Whitehurst, Arnold et al. 1994), for example, and repeated readings have been widely studied and identified as an important source of knowledge about vocabulary, letters and the characteristics of written language. Recent studies also

highlight the importance of introducing children to a wide variety of books in different genres such as information books, poetry and popular folk tales.

This research highlights the central role of the caregiver who evokes children's interest and engagement in literacy learning. Children build a mental representation of their interactions with caregivers that influences their expectations and responses to activities. When children feel secure, they engage in learning; when insecure in situations, they may use digressive tactics to avoid activity. For securely attached children, book reading was ultimately an enjoyable task, tied to learning improvement; for insecurely attached children, it was negative, with caregivers often using verbal and nonverbal cues to discipline behavior.

In brief, the physical and psychological environments play vital roles in children's learning about literacy. These supports mediate opportunities for literacy engagement and practice, and will likely influence children's attitudes and efforts to engage in literacy activities despite difficulties they may encounter as they are learning to read proficiently.

Conclusion

Explaining and understanding early literacy development is critical if we are to improve children's opportunities for success (Neuman and Celano 2012). The following features highlight what we can do to make a difference in children's early education:

• A supportive learning environment in which children have access to a wide variety of reading and writing resources
• Developmentally appropriate curriculum

that actively engages children's minds and builds language and conceptual development; a high-quality curriculum to serve as an important scaffold for teachers and to encourage careful planning and activities that build knowledge, skills and dispositions
• Teacher engagement in children's learning through conversations, discussions and contingent responses to children's questions and queries
• A daily interactive book reading routine that introduces children to multiple genres, including information books, narrative, poetry and alphabet books
• Activities that support small-group and one-to-one instruction and differing levels of guidance to meet the needs of individual children
• A masterful orchestration of activities that supports play, learning and social-emotional development
• Adjustments and accommodations for English language learners that allow them to successfully engage in learning activities in the classroom
• Ongoing assessment that is designed to monitor children's programs and tailored to children's needs

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Karin Plötz

Moving Motivates Learning

The key point in our panel on "Integrated Early Literacy Education" was that literacy education and language instruction cannot be regarded separately from the acquisition of other life skills, children's level of development or thematic embedment.

Today, with the growing influence of technology and social media in all parts of our lives, it is necessary not to forget the importance of movement, especially for early and later childhood. Drawing on experiences from the LitCam project Football Meets Culture, I will discuss here the importance of movement as well as the role motivation plays in teaching life skills/life competencies.

Prof. Renate Zimmer, one of the conference's keynote speakers, said, "Learning is not only head and brain. Children learn with all senses, with body, mind and soul."
Recent studies prove that movement supports concentration, since that means the brain is better supplied with oxygen. In addition, movement reduces stress hormones and makes you feel better. And of course motivation supports learning as well: If children like something, they are more interested in knowing more about it.

The project Football Meets Culture combines motivation, movement and culture. Nearly all children from all over the world like to play football, or soccer, as it is known in some countries. The popularity of football

is crucial, because we especially want to support children from socially disadvantaged families which often come from other cultures. After all, children from Turkey as well as from Kenya know and like football.

We started the project in 2007 in Frankfurt. Twenty-four children were chosen, mostly from families of migrant background. They did not speak German well and therefore had difficulties with reading and writing. Their families could not help them a lot with literacy. The parents had to accept that the project would last for one (school) year. The children received two hours of football training and two hours of additional learning (competence instruction) each week. And once a month they took part in a cultural event, a visit to a museum or rap-poetry workshop, for example. At the end of the project there was an FMC Tournament where all Football Meets Culture projects came together and played for the Football Meets Culture Cup.

The project has been successful and keeps on growing. After 6 years, there are now 13 projects in 6 German cities with 312 children, most of them between 7 and 10 years old. Based on the experiences gained, we can conclude that motivation and movement are the keys to learning success.

In terms of motivation, the link to football was the first step in getting children to

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Prof. Susan B. Neuman, PhD

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participate. At first, the children accepted the project because they were motivated to play football. They were eager to be instructed by a football coach from a popular neighborhood soccer club. But one hour of football training also meant they would have an additional hour of learning.

The second step was motivating the children not only to like playing football, but also to like learning. Therefore we selected a young teacher not from their school, so that they did not feel like they were being detained after school. And, importantly, most of the lessons dealt with football themes.

The third step was establishing a structure and community feeling, and the fourth was nourishing the children's curiosity by leading them to new cultural experiences such as visiting a museum or painting graffiti.

Motivation
Football is what motivates children to join the project. In addition, the football coach serves as a role model for the participants. He or she motivates them to learn and to improve their skills.

Movement
Most of the children did not play football before joining the project, and most did not exercise or do any other sports. In sum, they did not move. In starting the training for the project, the trainer first had to exercise the children's coordination and motor activity. After approximately three months, they then began football instruction. After a year, the children took part in the football tournament.

After a year of training/movement, the following results had been achieved:

• Coordination and motor activity had improved. The children were healthier, and some had lost weight.
• The children were concentrating better, especially in school.
• The children had more self-esteem.

Movement within Football Training/Play (Team Sport)
For the first time, the children involved in the project learned to participate in a team. They discovered the importance of rules and team spirit. They not only learned that there are rules, structure and strategy, they also came to understand and accept that the rules are necessary. Some key findings:

• The children learned to interact in a team; they learned how to win and how to accept losing.
• The children became less aggressive as a result of all of the movement and by adhering to the rules of the game.
• The children learned to run and think at the same time.
• The children developed social competence and better social behavior.

Movement and Motivation in After-game Lessons
At the beginning the children did not really want to go to the after-game lessons. But we identified a number of activities that are effective in increasing interest, including:
• Learning by moving. Sometimes "moving

lessons" are given. For example, learning grammar by moving: Children move under the table and explain the preposition "under."
• Combined training-learning circles. The children run and then stop to solve questions or read a text, then they climb a ladder and stop again before writing two sentences. The children learn by having fun and therefore do not think that they are learning.
• Interest in football themes. The teachers work a lot with football themes. In one project in Nuremberg, for example, a mathematics teacher combines football results with mathematical tasks.
• Competition. Some teachers use a key element from football: competition. Sometimes they organize quizzes for the children, where only one child can win. The children generally like this kind of activity, answer a lot and are very eager to win.

Motivation to Read
Many of the children participating in the project had never had a book before; some had never even read a book before. Over time we identified a number of things that can help motivate them to read, including:

• Live-readings. Children participating in Football Meets Culture in Hamburg could visit the Harbor Literature Festival and were invited to a reading by a children's book author. After the reading most of the children wanted to read the book.
• Football books. If the children have to read, they like to read about football players such as Messi and Ronaldo. They

are often eager to read such books even if the text is complicated.
• Pictures and real stories. The children like magazines such as *Kinderspiegel*, which include popular themes and have many photos, illustrations and short stories.

To give one example, Amir is a child from Tunisia, who joined our project in Hamburg three years ago at the age of eight. He was a shy boy, who could not speak German well. Over the last three years he has developed into a very good football player. His self-esteem has grown along with his success as a footballer. He has become more interested in learning and now speaks German well. He is now in secondary school. His younger brother is eager to join our project and will start next year.

Last year the project was evaluated by the College of Education in Karlsruhe. The results show a positive effect in the area of social-emotional integration. As role models, the football coaches are particularly important, since they have a significant effect on motivation and the degree to which the children integrate. Overall, we found that the children's motivation significantly increased over the course of the project. The key is giving children positive and detailed feedback.

In conclusion, all of our experiences show that movement and motivation strongly support learning.
Or as Carla Hannaford wrote 18 years ago, although she might well have written it today: "We have spent years and resources struggling to teach people to learn, and yet

the standardized achievement test scores go down and illiteracy rises. Could it be that one of the key elements we've been missing is simply movement?"

Karin Plötz

Karin Plötz is director of LitCam GmbH in Frankfurt/M., Germany, a non-profit-organization that was founded in 2010. Previously she was director of Focus Education at the Frankfurt Book-Fair (AuM GmbH). In this role she created, in 2006, the "Frankfurt Book Fair Literacy Campaign", a project designed to promote literacy worldwide. In 2007 she started the LitCam project "Football Meets Culture" to support underprivileged children through a combination of football training, additional inschool learning and cultural events. Before joining the Frankfurt Book-Fair, she worked for the Handelsblatt publishing group, in Duesseldorf, Germany, where she headed the marketing department for special products and, in 2000, became product manager for "Wirtschaftswoche heute", the online version of the German business magazine "Wirtschaftswoche". Prior to her positions in the publishing industry, she worked for several advertising and PR agencies. She has a degree in history and sociology from Heinrich Heine University Düsseldorf.

Anders Skriver Jensen

Literacy: Towards a Unified Approach for Childcare and School

Literacy and Literacy Curriculum

Literacy is a broad concept that comprises a number of contextual, communicative competences. In a media-borne culture saturated with written language, it is customary with literacy to distinguish not so much between spoken and written language, but to a greater extent between different contexts of communication. Language "wholes" of spoken and written language interact with technology, tools, values, norms and so forth. Therefore, literacy competence is complex, culture-based and situational; it is a skill students can acquire to navigate these versatile language wholes. This is called a sociocultural approach to literacy (Gee 2008; Hetmar 2010).

Literacy curriculum in the area of early childhood education and care (ECEC) is concerned with the practical work supporting and encouraging young children as they acquire different literacy competencies and participate in versatile communication contexts. Literacy curriculum also includes theory on this work – in particular, reasons for the choice of content, activities, objectives and so forth.

ECEC comprises theory, discourses, values, institutions and practices related to caring for, upbringing and educating children from birth to eight years old. Thus, the ECEC field consists of, among others, daycare centers, after-school free-time centers and the first years of school. I draw on the World Organization for Early Childhood Education (Organisation Mondiale pour l'Education Prescolaire, OMEP 2006), the United Nations Educational, Scientific and Cultural Organization (UNESCO n.d.), the Organization for Economic Co-operation and Development (OECD 2001) and on the literature of the field for the ages spanning birth to eight years.

Thus, literacy curriculum in ECEC can be understood as both theory and practice, with a view to various aspects, including language stimulation in crèche and kindergarten, teaching language, phonemic awareness, elementary reading and the study of the Danish language in the first years of school. School-based free-time centers also contribute to literacy curriculum.

Research Context

The points in this paper are connected to my PhD dissertation concerned with the same subject. As one component of my research I have completed fieldwork among a group of committed pedagogues and teachers in a Copenhagen suburb. Also included is inspiration from the Early Years Transition Programme (EASE) project, which focused on literacy

in the transition from kindergarten to school (EASE 2009).

I take a critical Didaktik perspective (as understood in Denmark) on literacy curriculum in early childhood education and care (ECEC). In this context, this means, among other elements, addressing the practitioner's role in establishing goals, means and content defining curriculum (Schnack 1999). Focusing on reasons and criteria for the choice of content is a main Didaktik aspect (Broström 2011; Klafki 1996, 2005; Schnack 2004), as is the interest in studying control documents and political strategy papers (Broström 2012; Klafki 2005). A preoccupation with the child's comprehensive personal development (education) also stems from Didaktik and thus the motivation to take a critical stance towards political (and research) tendencies to limit curriculum rationales, thus making for a versatile, comprehensive approach to the child and his/her curriculum (Broström 2009; Hopmann and Riquarts 2000; Schnack 2004). Critical Didaktik has traditionally subjected educational institutions and documents to a Habermasian ideological critique to uncover "tacit societal notions that are demonstrably erroneous" (Klafki 2005, 134; my translation). However, since then, more recent perspectives on discourse, authority, context and identity, also in the area of ECEC, have entered the scene (e.g., Dahlberg and Moss 2005; Dahlberg, Moss and Pence 2007; MacNaughton 2005).

Versatile Literacy Teaching

I present here an example of versatile literacy curriculum in practice.

Amalie hosts the news (kindergarten/child care)

It is a rainy Friday afternoon. After Vigga and Puk (the pedagogues) have tidied up the room, a large empty cardboard box remains. Amalie (4.8 years old), Line, Peter and Niels find the box. Peter gets an idea: They can turn the box into a television! Vigga helps them carve out the "screen" and the children paint the box with crayons and colored pencils. The result is one impressive television!

Children from the other two rooms join them, and they all take turns being speakers, talk show hosts, the cast in commercials and so forth. Amalie would like to join in this activity but is reluctant. So many eyes are looking. Will she be able to come up with something to say? Suddenly Amalie plucks up her courage and makes a brief, but literate newscast, which, among other elements, informs us that "The Disney Afternoon" has been cancelled due to a football match and that the good weather will soon return. Amalie smiles contentedly at her audience – she did it!

The children continue to play, until their parents pick them up one by one. Vigga puts the television up on the shelf – now it is ready for a new round on Monday!

Aside from being a cute anecdote, this vignette also contains some potential for literacy learning: Amalie tells her own stories and expresses her own opinions, experiences and so forth. She includes elements from her surroundings ("The Disney Afternoon" and the weather) in her stories; she listens attentively to her friends' stories, and is completely absorbed in her speaker role in the TV game. It is natural to link some of these signs with literacy (e.g., telling a story), but less obvious of course is the connection between literacy learning and being absorbed in a role in a game. How can one derive versatile literacy curriculum from this vignette? There is no formulaic connection –

nor is one desirable – between certain signs of literacy potential and certain pedagogical activities. Can we instead think of relevant and meaningful literacy-promoting activities in continuation of Amalie's TV debut? On the one hand, one can imagine activities in which literacy learning plays a central role, for example, one could help Amalie and her friends create a program overview, small speaker cards or a poster with the weather forecast for the next five days. On the other hand, one could, in a general way still relevant to literacy learning, make TV habits and experiences a recurring theme in all assemblies one week, letting both children and adults present their favorite programs (and those they find the dullest) and afterwards make a number of short parodies using the cardboard TV. One could make a short video using a digital camera from different locales in the educational setting, for example, the playground, and then insert a speaker/narrator. One could let the TV incident lead to content on mass media and perhaps obtain some old sets for children and adults to dismantle, reassemble, use in games (e.g., a remote control for the cardboard TV) and so forth. Another step towards contributing to children's development of a critical and independent approach to mass media could thus be the experience of what is "behind the screen," that is, letting them take part in dismantling a television, discussing the symbols on the remote control, and so forth, which would stimulate the functional literacy competency required to use a television.

Conclusion

I have argued in favor of a broad view on criteria for the *content* of pedagogical activities with a view to supporting literacy learning.

This broad approach should inspire pedagogues and teachers to continue to think of language learning – orally as well as written, in kindergartens, school-based free-time centers and during the first years of school – as more than just a technical matter oriented towards the individual child's acquisition of basic communication skills that correspond to the child's "development" and/or the requirements and expectations presented in curricula and text books. This approach would not only be to the delight of the children, but also to the adults who strive to give them a safe, meaningful and educational everyday life.

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Dr. Anders Skriver Jensen, PhD

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Roseli Aparecida Mônaco

Reading and Playing: The Contributions of Children's Social-cognitive Aspects of Learning

1. Introduction

This paper is about the research project that is being conducted by Instituto Brasil Leitor (IBL). This is a non-profit and non-govern-mental institution committed to developing projects supporting mass institutions and helping people use and become more fami-liar with books, newspapers, magazines and computers. One of the projects developed by the institute is the Reading Is Knowing Project, which is based on the conceptu-alization and implementation of three model libraries: Early Childhood (childcare, preschool, hospitals and other institutions), Youth (elementary schools and institutions) and Community (train, subway, bus stations, factory floor).

The Early Childhood library project aims to support reading-related activities for children between birth and six years, using books, toys and games.

The purpose of the library is to provide a space in which children from the earliest months of life can learn to listen, interact, think, investigate, communicate and explo-re the world around them from the experiences they gain through reading and playing.

This library works with two concepts:
- Using the interaction between reading and playing to improve early literacy development
- The principle that the child's perception of the world precedes the written word (Freire 1993)

"Reading the world" deals with the child's experience of everyday life and the social relations that are established in the child's cultural context. This is an important factor for the development of the social practices of reading. Thus, there are different ways of reading beyond the written word, and the child's daily life is filled with many reading situations.

Childhood is a social and historical construc-tion, rich in possibilities, which commence at birth. In this perspective, this project is based on the idea that children are active agents, researchers, who build their own culture. This assumption is important to the way the child acts and its entire being. In addition, the project considers the child's participation in this context as a right.

2. Early Childhood Project

The Early Childhood Project is contextualized as follows:

- Construction of a space with books, toys, multimedia and furniture for the purpose of promoting interaction between reading and playing. In this context children are active agents of their own culture; this intensifies the child's interaction with peers, educators and families through several languages – oral, gestural, body, graphics, etc. – besides being an important area that provides settings for mediation between human relations and materials
- Promotion of concepts development
- Improvement of teachers' knowledge about their children's development; continued training of educators and

professionals to promote discussion and practices relating to playing, literariness, learning, reading and other subjects relevant to the project
- Involvement of families and communities

Since 2004, more than 70 libraries in Brazil have been deployed and distributed in the states of São Paulo, Goias, Pernambuco, Paraná and Minas Gerais. Once deployed, educators and professionals from institutions receive ongoing training from IBL staff.

The project is based on the assumption that the child is an active agent, a researcher of their own life context, learning through interactions with people and with the environment. The Library Project promotes and

intensifies these interactions, and IBL intends to conduct research focused on this issue and the ways in which those interactions happen.

The institute also intends to contribute to this research in the area of public policy, bearing in mind the challenges:
- Overall, 30 percent of fourth graders in Brazil cannot read at the proficient level (Failla 2012).
- Reading helps individuals achieve full citizenship (Leite 2011).
- There is a 90-percent chance that a poor reader at the end of first grade will be a poor reader at the end of the fourth grade (Juel 1994, 23).
- Environments rich in materials and books enable children to read better (Dodge, Colker and Heroman 2010).

3. Research Project

Context of the study

The investigation is currently being undertaken in two phases. The first phase was conducted without a library between June and December 2012. The second phase will be conducted between January and December 2014 using a library in order to compare the children's learning process.

Setting

Two institutions:
1. A private day-care facility receiving public assistance combined with public administration for children from one to four years.
2. A public preschool for children from four to six years.

Participants

- Twelve students from a day-care center aged two to three years and twelve

students from a preschool classroom aged five to six
- Teachers, coordinators and directors from both schools, and families

Purpose of the Study

- Examining how the interaction between reading and playing at the Early Childhood Library contributes to the children's learning process in terms of social-cognitive aspects
- Developing recommendations for actions that should be taken by public policy makers and other researchers

Research Questions

- Does the interaction between reading and playing in the Early Childhood Library environment contribute to the learning process of children?
- Does the educator contribute to the literacy and learning process of the children?
- Does family involvement contribute to the learning process and literacy development of children?

Research Methodology

The research methodology was designed to collect a range of qualitative data on the Early Childhood Library, combined with a case study.

The qualitative data was derived from a number of perspectives, including interviews with the director, coordinator, educator, families (including traditions, beliefs, values, cultural and ethnic background and other social dimensions) to find out more about the participants' history, characterization and profile.

Procedures

Two sets of data are being collected.

First Phase

The aims of this phase were to:

- Investigate, once a week for one hour, daily activities
- Conduct interviews with director, coordinator, educator and families using questionnaires to provide background information on schools, families and students
- Conduct children's interviews and involvement in a playful way to get a glimpse of them in the school context and social life
- Collect anecdotal data once a week and observe children's interaction with peers, educators, professionals and families
- Observe the interaction among educator/child and child/peers, and daily activities

Second Phase

The aim of this phase will be:

- Install libraries in two schools participating in the study
- Provide initial training (eight hours) on what is reading, the importance of reading and playing in early childhood, technical information on books and storytelling, and planning activities in the library
- Provide continuing training every two months
- Investigate, once a week for one hour, activities in the library
- Conduct family questionnaires
- Conduct children's interviews, getting involved in a playful way to get glimpse of learning in the school context and social life
- Collect anecdotal data once a week and observe children's interaction with their peers, educators, professionals and families
- Observe the interaction among educator/child and child/peers, and daily activities

- Conduct interviews and wheel conversations with educators to collect suggestions, criticisms, opinions, etc.

Families

1. Interviews with families using wheel conversations and questionnaires to collect data on readings, narratives, jokes made at home with children and comments about the project
2. Participation in school meetings with families

The range of anecdotal data will be analyzed according to the instruments below which attempt to provide systematic assessment of young children's knowledge and abilities in all areas of development.

Instruments

- Preschool Child Observation Record (COR) Categories of child development based on a list of observation items: initiative, social relations, creative representations, movement and music, language and literacy, and mathematics and science.
- Infant Toddler Observation Record (COR) Categories of child development based on a list of observation items: self notion, language and communication, explorations and logic. There are five developmental levels for each item describing behavior ranging from simple (1) to more complex (5)
- ETERs: activity, educator interaction, materials and environment
- Benchmarks of Early Childhood Education in Brazil

Theoretical Perspectives

The theoretical approach used in this study references the following approaches:

- Literature review of early childhood

education in Brazil and international academic publications
- Vygotsky's social-interactionist theory
- Piaget's developmental approach
- Sociology of infancy (Sarmento, Corsaro)
- Brain research

These perspectives provide a review of recent research on early cognitive development and the interrelationships across children's developmental domains in order to give an overview of children's learning experiences.

Preliminary Findings – Preschool

In this section we present some of preliminary findings that were collected without a library.

Fig. 1. Activities in School
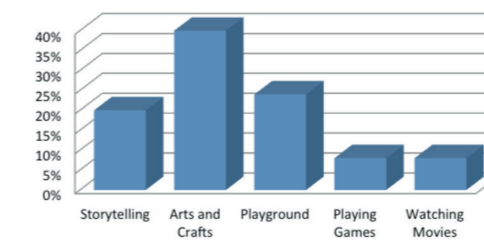
Figure 1 shows the emphasis on arts and crafts and the playground activities.

Fig. 2. Category (COR) – Language and Literacy
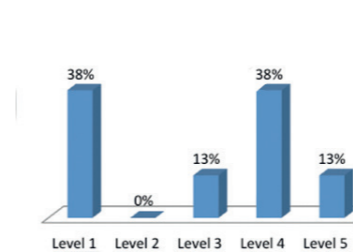
Figure 2 shows that children are at level 1 and 4, but according to COR, children are supposed to be at level four or five at around the age of 5.

Fig. 3. Category – Initiative: Making Choices, Solving Problems
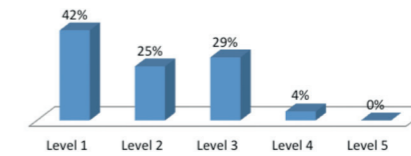
Figure 3 shows that children are at Level 1-3, but according to COR children are supposed to be at level 4 or 5 at around the age of 5.

Figure 4. Family Involvement
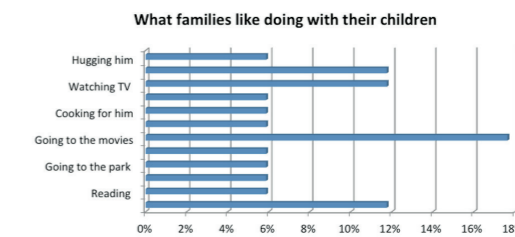
Figure 4 shows the families' culture and influence

Figure 5. Category – Notion of Self
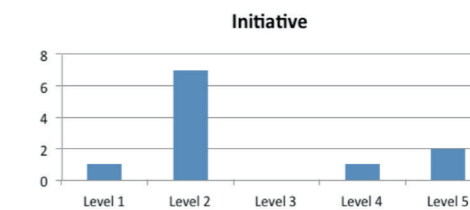
Figure 5 shows that children are at Level 2, but according to COR children are supposed to be at level 4 or 5 at around the age of 3.

Fig. 6. Family Culture

What Families like to do with children.
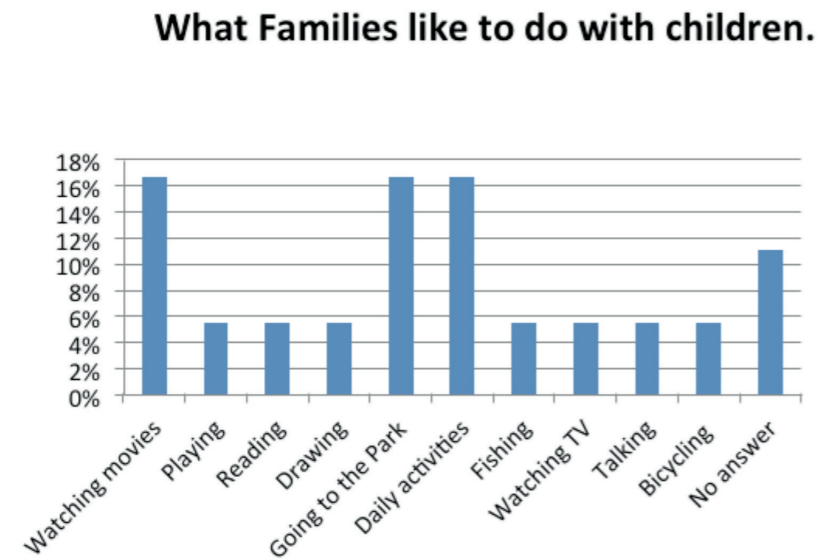
Figure 6 shows that families like going to the park and watching movies and cartoons with their children.

Fig. 7. Category – Language and Communication

Nonverbally Interests Communicate
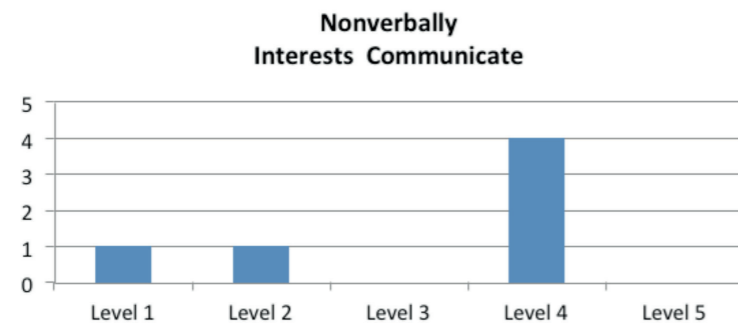
Figure 7 shows that children, according to COR are at level 4.

Fig. 8. Activities in School
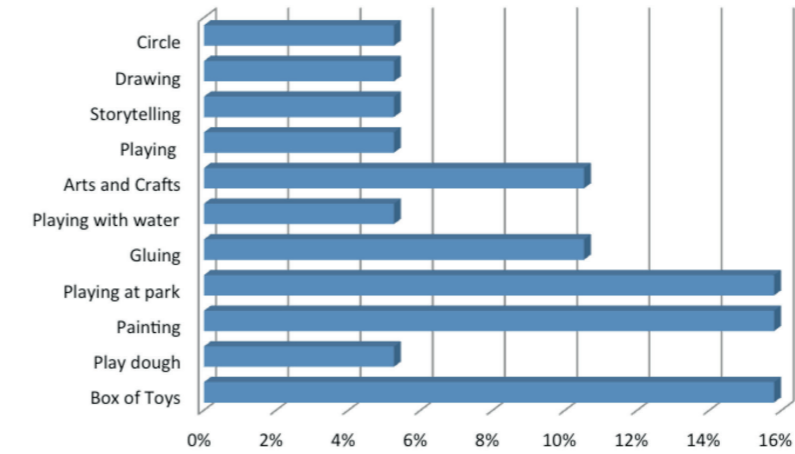
Figure 8 shows the emphasis on the areas playground, painting and box of toys.

Preliminary Findings

The preliminary findings indicate some factors that compromise the promotion of the Early Childhood Library reading and playing project.

- Lack of toys, books, arts and crafts materials
- Lack of opportunities provided by teachers to explore and work with materials in a variety of ways in order to develop concepts
- Lack of movement and music activities
- Lack of storytelling, nursery rhymes
- Lack of children's vocabulary
- Lack of activities that relate events in books to activities and events in the child's life
- Lack of books chosen by teachers portraying the cultural and language backgrounds of the children
- Lack of circle time to expand children's vocabulary
- Lack of opportunities to improve vocabulary
- No use of open-ended questions to expand children's answers
- Lack of materials in literacy areas that children see outside of the early childhood environment (e.g., cookbooks, writing tools, telephone books, newspapers) to increase literacy events
- Insufficient quantity and quality of arts and crafts supplies to develop extensive activities

The Further Steps to Be Taken Are:
- Installation of the library
- Educator's initial and continuing training
- Supporting teachers and families
- Improving literacy and playing activities in early childhood education

The Findings Include Teacher-related Factors:

• Inability to understand children's needs
• Teacher-centered behavior
• Inability to plan and organize the learning environment
• Inability to conduct storytelling activities

Conclusion

In this paper, we showed how the study is being conducted and discussed preliminary findings and some data-collecting aspects. We also discussed the findings gained without a library, highlighting the importance of a reading project in early childhood education.

Based on the findings, the importance of a number of factors becomes clear: teacher training; letting children develop their potential by discovering the world on their own; helping children know more about their world, so it is easier for them to read and learn when they get to school; providing opportunities to explore and work with materials in a variety of ways in order to develop concepts, e.g., cooking, taking care of plants, dramatic play and sharing information in books.

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Gerhard Friedrich / Barbara Schindelhauer

Let's visit Numberland: An Emotive, Story-based Contribution to Numeracy and Literacy Development

Roseli Aparecida Mônaco

Roseli Aparecida Mônaco has a master's degree in art, history and education from Universidade Presbiteriana Mackenzie, São Paulo, Brazil and a master's degree in educational technology from American Intercontinental University in Florida, United States. She also holds a graduate degree in educational psychology and a bachelor's degree in psychology. She is a specialist in early childhood education development with significant experience in educator training, play and learning in childhood education, and early literacy education. She was on the faculty of education at São Paulo University - Laboratory of Toys and Pedagogical Material from 1992 to 2001. She is currently an educational consultant at Instituto Brasil Leitor and general manager of a cultural centre ludic space organized by the faculty of education at São Paulo University.

Since 1992 she has trained over 10,000 educators in playing and learning activities in early childhood settings.

She has recently been conducting research on how reading and playing activities contribute to language, cognitive development, literacy development and social skills among children from 18 months to 6 years. She also takes part in discussion groups, seminars and events relating to early childhood development and the potential that playing and reading offer for early literacy development.

She also provides academic institutes, governmental organizations and the private sector with courses on early childhood learning in Brazil.

Let's visit Numberland is a story-based, early childhood approach that makes use of the fact that children learn in their daily play. The focus is on acquiring early numeracy skills using the body, mind and heart. Yet this multifaceted approach also contributes to literacy as well as other important skills. It combines findings on learning, particularly brain research and developmental psychology, with the didactics of mathematics. Consequently, by taking a child's perspective, it allows children to build on what they know, how they see the world and what they need. The underlying study showed significant effects on both math-relevant thinking and language. The concept is widely used in Germany and has been adapted for use in several other countries.

The basic idea is that children learn with all of their senses and emotions as they play and that numeracy and literacy overlap. After all, mathematics is a formal, abstract language used to describe the world (quantities, sets, shapes), while considerable general knowledge relates to numbers (four seasons, six-legged insects). Language skills, moreover, are necessary to acquire that formal language. Other important skills for a child's academic and social development are emo-

tionality, concentration, cognition, creativity, musicality and motor and social skills.

In the imaginary country of Numberland, children meet numbers through stories, songs, tangible experiences, active play and creative work – using a great deal of communication and interaction. The approach is emotional and playful, open yet structured, inviting children to explore mathematical coherences with the body, mind and heart (Friedrich, Galgóczy and Schindelhauer 2011).

The initiating research project revealed significant positive effects on both math-relevant thinking and language skills. The results were independent of the socioeconomic background of the children, who were aged four to six years. A second study, as well as feedback from the field, confirmed the findings. Today, Numberland is a standard approach in German early childhood education and care centers and is increasingly being adapted and applied internationally (Friedrich, Galgóczy and Schindelhauer 2010, 2011 b, 2013).

Numeracy and Literacy

Numeracy is usually described as "knowing

and being able to work with numbers, sets and shapes." As letters and words, numeracy is the ability to work with abstract symbols as representatives for concrete matters. The ability to think abstractly is a key process in a child's development.

Starting with an inborn concept of one, two and many, over time a solid bridge needs to be built to the formal language of math, using abstract symbols to describe the world such as sets, quantities, ranks, shapes, spatial relations and others. Basic numeracy skills are essential for daily life and school and in every profession. Most math problems relate to a missing or wrong idea of basic numeracy.

Growing into numeracy is a natural part of a child's development. Around the age of four, children start to get particularly interested in and talk about numbers: How many cookies are these? How can we split them? How many nights until my birthday? This interest shows the point at which children are ready and eager to learn about numbers. They are then also ready to move towards abstract thinking.

Usually, numeracy is acquired in daily life – provided there is appropriate interaction. If not, well-designed environments in preschool or kindergarten are needed. Mathematics together with reading and writing are the core topics in first grade. The way children cope here influences their self-esteem and their motivation to learn. A long-term study revealed certain knowledge children should have acquired before entering first grade (Krajewski and Schneider 2009). It is, therefore, vital that children be provided with enough time and opportunities to acquire the knowledge and skills they need.

The Numberland Concept

Numberland turns the abstract numbers one to ten into an emotional, tangible

experience with a great deal of interaction, allowing children to contribute their own ideas. The children visit each number in its geometrically shaped garden, with its house, tower and the other elements that go with the number. During each Numberland visit, the children discuss and experience numerous aspects of the numbers through motion, active games, stories, songs and topics all related to each specific number (Figure 1). Number puppets animate the abstract numbers and appeal to the children's magical and emotional thinking. They are included in the stories and can be reinforced, as children enjoy playing with them.

Number Lane, for example, displays the numerals 0 to 10 (later up to 20). By laying out Number Lane's mats in the correct order, decorating them and moving and playing numerous fun games there, children can physically experience many aspects of numbers and train their motor skills.

Fig. 1: The abstract numbers become a tangible, emotional happening on the floor and trigger a lot of activity and communication. 'Let's visit Numberland' builds the structuring frame for multifaceted experiences.

Furnishing the garden is always enjoyable for children because it is never the same and encourages play and discussion (Figure 2).

Fig. 2: The children find and discuss objects for Number Eight. Numerous number aspects are displayed in the 'Number Garden' where Number Eight 'lives'.

In the garden for number four, for example, there are four of everything: The children may pick four counters, such as buttons or bricks, four pens or four beans, and place them where they choose in the garden. Thus, they experience all of these groupings in the same small place, seeing that it does not matter what a set consists of or how it is arranged.

The more advanced approach includes typical things: A horse may be placed in number four's garden due to its four legs. Yet it also has one tail, two eyes, two nostrils – and it's only one horse. The children discuss and negotiate where to finally put the horse – at

least this time. All day things are suddenly seen with different eyes and details become relevant.

There are opportunities for each teacher to address language and vocabulary – whether the language used is the children's first or second language. A particular advantage is that even children who do not yet have certain language skills can nevertheless participate, as they understand the principles. While participating, the child understands that "the two things on top of the cow, where my friend is pointing, are called 'horns'."

Specific stories address the magical thinking

of the children. For example, the sick Four is cured by drinking tea that has been prepared with four times four ingredients, left to brew for four minutes and sweetened with four spoons of honey. Alternatively, stories can be made up by the teacher (Figure 3).

Music and singing are of very valuable activities for children and are addressed with a refrain and special Numberland songs. Additional children's songs relating to specific numbers can also be integrated (e.g., "Three Blind Mice").
Two characters help children engage in magical thinking: Naughty Hodgeypodgey creates confusion in Numberland, moving objects

Fig. 3 : Children hear and play the story of how sick Number Four is being cured.

from one garden to another, swapping mats on Number Lane and so on. Children enjoy finding and correcting the mistakes which provides a boost to self-confidence. Forgetmenot, the numbers fairy, can be called to help make things right again.
Each number may trigger topics relevant to general knowledge: Honeycombs are always hexagonal, all beetles have six legs, all spiders eight. The topic spider can be explored with types of spiders, making or drawing spiders and the song "Eensy Weensy Spider." Games provide encouragement even to the shy, since they focus on beloved numbers.
In the "Book of Numbers" each child collects all kinds of work related to the project. It is also a tool to encourage children who are reluctant to draw or cut, enhancing their fine motor skills. It also documents their progress throughout.

Scientific and Field Approval
The research project ran from 2003 to 2005 in Germany (Friedrich and Munz 2006). The objective was to develop and evaluate a didactic, open concept based on the numbers zero to ten, considering both the children's view on the world as well as the educational work and needs in preschool/kindergarten. Children from ages four to six participated. Over 10 weeks, the project group went on a Numberland trip. Their weekly one-hour visits to the numbers were accompanied by appropriate activities during the week and free play with the materials. In parallel, the control group continued their normal curriculum. All children were given the same tasks to evaluate their learning progress, both before and after the 10 weeks. The results were striking: Project children of all age gained (on average) the mathematical competence and understanding they normally would have achieved only after one year (Figure 4).

The results for language competence were the same – a highly important finding since language is the key to education (Figure 5).
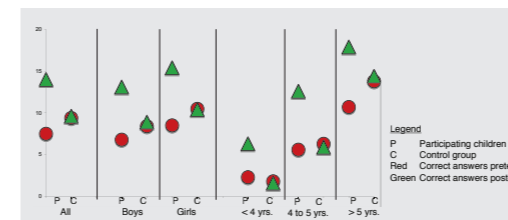
Fig. 4: In terms of perception-bound thinking, Numberland children of all age groups achieved at least the starting level of the one year older children within the ten weeks of the project.

The findings also held for underprivileged children with partly very poor understanding of the German language.

The participating teachers and educators were highly motivated because the approach values their skills. It was easy for them to incorporate Numberland into their schedule, to bring in their own ideas and combine topics.
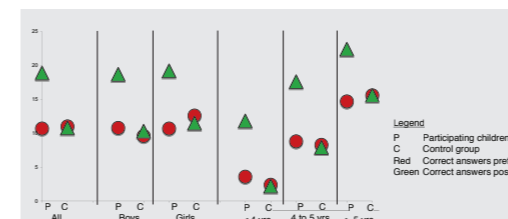
Fig. 5: In terms of both active and passive language skills, children of all age-groups gained more than one year within the ten weeks. The effects were the same for boys and girls. Prior to the project, a substantial part of the participating children had had major language deficits.

School teachers endorse the concept as excellent preparation for school. In areas with many underprivileged children, after using

the approach teachers have seen a higher base level of ability and more self-esteem, leading to more motivation and participation. Preschool and kindergarten teachers appreciate the comprehensive advancement children experience and how well this flexible concept can be individually combined with their specific schedule. Children usually get completely absorbed in a Numberland project and transfer it to their daily play.

Conclusion
At the heart of Let's visit Numberland are the ideas and principles that provide playful and comprehensive access to mathematical coherences and language. The focus is always on the children, noting their individual level of development, interest, needs and ideas. The framework, with its flexible options, serves as a guide to children and teachers, allowing individual, daily experiences to be systematically organized and related activities to be applied. This flexibility enables adaptation to other countries as proven by projects in the UK, Texas (USA), Estonia, Romania, Poland, Russia, Thailand, Turkey and the Middle East.

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Links

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Dr. habil. Gerhard Friedrich

Dr. habil. Gerhard Friedrich holds a PhD in pedagogics and teaches school pedagogics at the University of Bielefeld, Germany. He is currently deputy head of a secondary school near Lahr/Schwarzwald, Germany. In the context of his dissertation on neurodidactics and teaching math, he developed Let's visit Numberland. After the strong positive response in his son's kindergarten, he applied for and led a research project on Numberland. He has developed and documented various approaches relating to early childhood education.

Barbara Schindelhauer

Barbara Schindelhauer originally studied business administration and psychology at the University of Mannheim, Germany, and then received a Master of Science in communications from Stirling University, Scotland.
From 1993 to 1999, she worked in sales and marketing for an international consumer goods company, finally as a senior account manager. During parental leave, she began volunteering at her children's kindergarten. In 2004, when her children were three and five years of age, she came across the work of Dr. Gerhard Friedrich, who had developed Let's visit Numberland, a holistic approach to early math and language. Fascinated by the results and the impact on her children, she set up the Institut für vorschulisches Lernen (ifvl), with Dr. Gerhard Friedrich as its scientific advisor. The objective was to make the approach broadly available to teachers through hands-on training courses and publications. She was also involved in a second research project on Numberland through the University of Heidelberg. Her current focus is on promoting Numberland internationally.

Background Conditions and Factors Influencing Development Potential and Literacy Support

Lynn Stefano

Building Early Literacy Skills in Rural Communities in KwaZulu-Natal, South Africa

The Family Literacy Project (FLP) has been working since 2000 in remote villages in the southern Drakensberg region of KwaZulu-Natal. Our main aim is to make reading a shared pleasure and valuable skill amongst rural families, and our motto "Masifunde Njengomndeni" translated means "Families reading together". We believe that families are the first and most important teachers of young children, and our primary activity is to support adults who have low levels of literacy to help their young children develop their early literacy and learning skills.

The project was set up following the findings of an evaluation of a national ECD Pilot Project that ran for three years until the end of 1999. The Khulisa Management Services (KMS) evaluation team explored the question of whether or not children in community-based and formal preschools were receiving quality Reception Year education. One of the KMS findings was that there was a "decline in the early literacy and early numeracy assessment results over the three-year period for the Grade 1 and Grade R classes" (Khulisa Management Services 2000). This was in spite of the

intervention which provided training and resources to ECD centres.
Sadly, in the ensuing years young South African children continue to present very worrying levels of literacy and numeracy for their age, as the Progress in International Reading Literacy Study (PIRLS 2011) show. The report states that "South African Grade 4 learners, particularly those tested in African languages, achieved well below the international centre point despite having written an easier assessment" and "almost half of the Grade 4 learners came from schools in remote rural areas and achieved more than 100 points less than their urban peers".

Adapted to Rural Setting

Young rural children are particularly disadvantaged when it comes to education, due to generally poor-quality teaching and school management, inadequate infrastructure and service delivery, living in poverty which results in hunger and malnutrition, and having to face the devastating effects of HIV and AIDS in their communities. In addition, homes have few literacy resources, families mostly share stories and information orally rather than through the written word,

and generally rural environments are print poor. The founder of the FLP sought a new approach to addressing these educational challenges. She adapted family literacy approaches found in the United States and United Kingdom to suit the conditions present in our deep rural villages where the majority of young children are raised by illiterate or functionally illiterate grandmothers. Stats SA reports that women 40-59 years and 60 years and older – the mothers and grandmothers who are raising young children – are more likely than men and young women to have had no formal education or to have not completed seven years of schooling. Their rates of functional illiteracy are 30.6 percent and 51.3 percent respectively (Statistics South Africa 2010). These are the women that FLP targeted to support through our programme.

Initially, FLP worked in five villages, holding monthly meetings with parents/primary carers of preschool children to help them to strengthen their role in early literacy development. Within a year these women felt confident to support their young children and requested adult literacy sessions to improve their own literacy. Each group of parents selected a literacy facilitator from their own community, and these women underwent training arranged by the FLP. We now work in 15 villages, and our facilitators have been trained in adult literacy (mother tongue and English as a second language), early literacy and the *Reflect* (SA Reflect Network 2013) approach, and have attended many courses in early childhood development, psychosocial support, HIV and AIDS, library management and play therapy. Our facilitators, who join the project with grade 12 and no work experience, undertake tertia-

ry studies in adult education. Our approach is highly participatory, as we believe that local knowledge is important and new information provided through our programmes needs to build on what people already know.

We soon realized that people needed books in their mother tongue if they were going to learn to read. Each group received a box of books which they use in their literacy sessions and from which they borrow books to read to their children at home. Box libraries contain books in Zulu and English, for adults, teens and children, including fiction, non-fiction and reference books and house a variety of puzzles, toys and games that adults and children can play. Our reading campaigns have proven very successful in getting children and adults to develop the habit of borrowing books. We have built four libraries buildings which are used for literacy sessions and other community events. During school holidays children visit the libraries to engage in various fun activities and participate in sports. We recently

built playgrounds at the libraries which are a novelty as most villages do not have play equipment for children.

FLP introduced a home visiting programme in 2004 that combines early literacy and health messages, based on the community component of the Integrated Management of Childhood Illness strategy (c-IMCI, http://www.who.int/maternal_child_adolescent/documents/9241591951/en/). Adult literacy group members then started visiting homes of neighbours to play with and read to young children and talk to adults about measures they can take at home to ensure their children are developing and growing well, and are safe.

Over the years we have found that children whose parents attend our literacy sessions usually do well at school, are confident and enjoy books and reading. This encourages parents to continue to attend literacy sessions. The project is evaluated regularly and the reports are on the FLP website.

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Lynn Stefano

Lynn Stefano has a master's degree in agriculture (food security) and a post-graduate diploma in agriculture (rural resource management). She has been working in rural development NGOs since 1997 in South Africa. Her work and research interests have centred on rural people's knowledge and information systems, and how people with limited literacy skills access and use information from printed materials. She joined the Family Literacy Project in 2006 as project development manager, responsible for starting new family literacy groups, and was appointed director in January 2008.

Rammohan Khanapurkar

When Education Is More Important Than Reading

The title of this paper suggests that reading is not embedded in the educational process of India. The following text would peel away layers of educational perceptions prevalent in India, which would provide a kaleidoscopic view of the realities of reading in early education in India.

There is an Indian author who writes in English, Kiran Nagarkar, who is immensely popular in Germany. He has been awarded the Order of Merit (Bundesverdienstkreuz), Germany's highest civilian honour. German translations of Nagarkar's literary works are highly appreciated by both German critics and readers. Particularly his book *God's Little Soldier* is a bestseller in Germany. In one his interviews, he has showered praises upon Germans for attending his reading sessions. Hardly anyone fills half the hall for a similar event of his in India, his motherland. Certainly Nagarkar's Order of Merit should be hailed by Indian media, as a one-of-a-kind achievement. But there is hardly any reporting on it. So when adults, who are supposed to raise a toast for Nagarkar are either ignorant or don't find anything newsworthy in it, why blame children for not reading? Surely an adult is what childhood does to him. Unfortunately, reading as an exercise for cognitive pleasure and unalloyed joy is not encouraged in our society. Education is perceived as attaining higher grades and getting mastery over a particular skill, which does not require reading as an extra-curricular activity.

The Vyogotskian perspective says that inherent within an act of reading are issues of power and social identity. Apparently innocuous questions like what to read, whom to read, why to read assume unwarranted proportions due to control exercised by authorities. In India we often find that people park cars when it is written "No Parking"; people spit when it is written "Do Not Spit"; people stick posters when it is written "Stick No Bills". This mainly happens because of neo-literacy, i.e., many Indians are entering the literacy horizon as first generation learners. Text or print literacy is a relatively new phenomenon and will probably take some time to deepen its roots in order to transform the masses. One can also blame the school tradition of rote learning without meaning and parroting text material without comprehension.

Educational Policies and Early Literacy in India

Understanding the social context of public policies would give a satellite picture of what's happening on the ground. In India, government schools provide free education to underprivileged children. These are non-English medium schools catering to almost 80 per cent of children. The parental role ends when a child is admitted to school.
It's due to parental submission or a firm notion that "education happens in school only" that the learning process predominantly happens within the school or classroom environment. **It is only in the last decade that India has achieved near universalisation of elementary education.** In a way, many children are coming into the fold of education as a first generation.

Constitutional Obligation

Recently, India passed an epochal act called 'The Right of Children for Free and Compulsory Education', although the act guarantees compulsory education to children 6 to 14 years of age only. What about children from 2 to 5? The act is silent about toddlers getting ready for school in a few years. That leaves millions of children without vital pre-school education, a foundational exercise for elementary school preparedness. **India has the world's largest Integrated Child Development Scheme (ICDS).** A small brick-and-mortar structure in the form of a courtyard shelter takes care of child nutrition and health and arrests infant mortality rates. There are millions of such shelters catering to underprivileged children in far-flung areas. These shelters should ideally become hubs of early, especially emergent literacy through pre-school literacy activities. **But we have left early literacy out of ICD; as a result, children are entering elementary education without any pre-school foundation or school preparedness.**

Language of Reading

While most of the world is mono-lingual, **India is a remarkable exception with 22 official languages and more than 5,000 dialects.** The latest linguistic survey says that half of the dialects are on the verge of extinction. As they die, it would be a tragic end to the right of millions of children to early literacy development in their native tongue. It is nothing short of catastrophe.

There is a parental perception that extra attraction for languages will lead a child towards language courses in higher education. These courses are considered unproductive, unremunerative and unemployable and therefore discouraged. The entire school education is geared towards scoring maximum marks during the entrance test for medical or engineering school after the 12th standard examination, with aggressive focus on mathematics and science. Affection for languages and reading are considered to have harmful effects on scoring the high marks required for the entrance examinations. Tangible rewards are preferred in the form of a degree/job than intangible aspects like the role of a citizen in a democratic, secular, socialist republic and an egalitarian order. Thus, education is highly centralised with fixed notions of learning outcomes in the form of a formal degree. In this process, less focus is given on early literacy processes and more on output in the form of grades/progress reports. If children are encouraged to read at all, it's for better grades than for pleasure.

Multilayered School System

We've reached a stage where education is treated as a commodity and people can buy its different variants. This tendency breeds social inequality and injustice, where latest learning aids are available for those with purchasing capacity. India has no publically funded common neighbourhood school

system. As a result, elite private and English medium schools with high-cost models create an image of being quality education providers. This perception leads to inherent lack of trust in government schools and a child is perceived to have low learning outcomes if they attended government schools. This generates negative ecology and discourages social integration of children from divergent socioeconomic backgrounds. A multilayered school system undermines the educational ideology of promoting an equitable order and equal opportunities for all.

Transition from Oral Tradition to Print Tradition
For first generation learners, oral tradition at home is natural. Print tradition authorised by the school system in unnatural. This demands special skills in language teaching and creating various print reading activities. In the absence of early literacy training and academic orientation, teachers continue with assumptions of children's transition from the home setting to school. As long as teachers are not specially trained for early literacy in training institutes (for which institutes should be equipped with master trainers) little can be done to meet the expectation of print-based reading by children.

De-contextualised Ambience of Social Setup in Textbooks
Textbooks do not mirror the contextual reality of the rural setup. The textbook is the same for children in remote as well as urban areas. Words like "building" form different images for children from each social setup. Rigid and almost authoritarian textbooks are detrimental to early literacy processes, where there is more emphasis on standard written text and less flexibility for contextual individual creativity.

Government vs. Private, English vs. Regional
It is perceived in India that private education (mainly English medium schools) offers better quality than government schools. This has a direct bearing on the reading acquisition process at the cognitive level. English is a foreign language in the Indian culture. It's not in the neighbourhood eco-system. But since it is a symbol of vertical social mobility, it is perceived to provide access to modernity. This takes a heavy toll on young learners, who due to inept and pedagogically weak English teaching can neither learn English nor their mother tongue. Also, English medium schools flatten the social diversity in schools and make a homogenous environment, which is artificial and unnatural for early education. English medium school advocates English reading, which fails to inspire children if early literacy acquisition is flawed and erratic.

Parents as Bystanders
Generally schools become the ultimate authority, assuming the role of guardians in every aspect of education. As a result, parents play a lesser role in early reading. Many times, low literacy of parents turns them away from active participation in children's learning process. This leaves little scope for social life to play its vibrant role.
There is hardly any research happening on the early literacy acquisition in the Indian context. The field is highly under-researched. Experts in higher education or universities dealing with advanced linguistics or language policies are hardly concerned about the EL challenges. As a result, universities are hardly doing any research on these issues.
Prof. Krishna Kumar, Educationist and Ex-Director of the National Council of Educational Research and Training (NCERT), says, "**Within any culture, it is the purpose of education**

and the expectations of the society towards education that determine the importance given to reading. Usually the expectation from children is that once schooling is over, the activities of studying or reading need not continue. Therefore sustained and involved engagement with reading is not nurtured within our classrooms. **Reading as an activity requires 'solitude', however, in our culture solitude is not an accepted state of being.** This fact has a role to play in the fostering of reading as a habit. Most schools do not provide facilitating environments for reading. In fact books are not considered an essential part of life by those who are literate. People don't really have the expectation that a literate person should develop the capacity to relish reading as a sustained activity. Therefore, reading as an activity which has the potential to be enjoyed is not consciously encouraged in our education system."
As the *2005 National Curriculum Framework* has pointed out multilingualism "is a typical feature of the Indian linguistic landscape". India is one of the most linguistically diverse nations and the Constitution of India has guaranteed equal status to each state language. Due to its diverse multilingual setup, language teaching instruction varies in each state. As a corollary, early literacy in the Indian context becomes a complex subject when compared to other monolingual nations. Though there are some similarities in the Indian languages, many of them have different script, phonology, syntax and vocabulary. Despite these differences, there can be information sharing for instructional practices and Early Literacy activities. Such activities by non-state agencies are, however, sparse and scattered. Scaling up such activities in the larger system is the real challenge, which calls for collaborative academic activism. In the absence of a national focus on early literacy

initiatives and due to peculiar challenges in the Indian context, "Learning Reading and Writing IS STILL a Rocket Science in India". This fact has been highlighted in this chapter with a specific reference to the "education of tribal children".
A position paper of the National Focus Group on the Teaching of Indian Languages[1] recognises the failure of schools to address the linguistic diversity and multilingual competencies of young learners. This document recommends that the medium of instruction at the primary school level should be the child's mother tongue. However, the situation on the ground is complex, with diverse languages being clubbed under one regional language. For example, in the case of Hindi, about 20 languages which have been grouped under Hindi, in fact, had more than one million speakers each in 1991. These include Bhojpuri (23.1 million), Chhatisgarhi (10.6 million), Rajasthani (13.3 million), and so on. Many of these are written languages with an extensive literature. Within the classroom this translates into the reality of several children with "Hindi" as their mother tongue, in fact not being able to understand the "Hindi" of the curricular transaction[2].
In a language class, the teaching approaches adopted and the tasks undertaken should be such that they lead a child to go through the whole scientific process of collecting and observing data, classifying it according to its similarities and differences, making hypotheses, and so on[3].

Early Literacy of Tribal Children – A Special Challenge
A large number of young learners in India, especially children from marginalised communities, come from rich oral traditions or "non-literacy cultures". Although they enter schools with rich language resources and

life experiences, much of these resources are not adequately acknowledged within the spaces of the school and classroom. For these children their first active engagement with the written forms of language occurs only when they step into school. They do not have prior print exposure of any kind. Such children who do not have a print-based home environment in their early childhood years have been found to be at a major disadvantage when they enter school. They do not enter school with the same degree of preparedness as children who have already actively experienced various forms of reading and writing at home. This is compounded by the fact that many of these children come from social groups that are often viewed in disparaging terms and at times as being unfit for school learning. The situation gets further aggravated by the fact that most of these young children do not have any support for reading and writing at home. Many of them are, in fact, required to help with domestic chores, look after younger siblings, take the cows and goats to graze, or work to supplement the family income. Therefore, even if such children do get to school, they do not get time for homework or for reading and writing practice at home. All these factors affect their school performance, and they soon begin to fall behind[4].

Some related facts:
- Tribals constitute 8 per cent of India's population. In states like Jharkhand, Nagaland, Mizoram, Manipur, Arunachal, Chattisgarh and Tripura they constitute more than 30 per cent of the population.[5]
- Researchers of early literacy strongly advocate the use of the mother tongue or home language as the medium of instruction in early stages of education

This assumes greater significance in the context of tribal children because their mother tongue is often quite distinct from the prominent languages in their state or region. In fact, children are carriers of language, and language itself would die if avenues of early literacy decrease.
- Tribal children face problems wherever teachers do not speak their dialect at all. From the perspective of language, it is desirable to have a local teacher from the same tribal community.[6]

Proactively Promoting Early Literacy in India
1. Invest in Teachers
Although the interaction of linguistic theory and applied linguistics has produced a variety of teaching methods and materials, the language-teaching classroom has remained one of the most boring and unchallenging sites of education, dominated largely by the behaviourist paradigms[7].

Scant attention has been paid to the quality aspects of the teacher's training curriculum, which is not linked with the modern research in early literacy. These courses pay lip service in teaching early literacy as an important building block in the educational development of children. Once qualified, the ill-trained pre-service teachers from these colleges perform the complex task of early literacy in schools. Their classroom interaction lacks the correct instructional methods required in teaching beginning reading and writing. Therefore, it is essential to strengthen the component of early literacy in the D.Ed. education system after consultations with institutions or NGO's working in the field.

2. Anganwadi and Early Literacy
"Emergent literacy"[8] , a term first used by

Marie Clay to describe how young children interact with books and reading and writing, even before they read or write in the conventional sense, is an important concept in the early learning process. Emergent literacy is a gradual process that takes place from birth, until a child can read and write in the conventional manner.

Literacy learning begins very early in life. It develops through constant interactions with people and the environment. If the experiences of children are supported by adults through interactions (words), then new vocabulary is learnt by the child. It is therefore valuable to verbalise what the child is experiencing. This helps the child to pick up new words. The actual learning to read and write requires hard work and is also dependent on the child's motivation. Therefore, when the child observes adults participating in literacy, it is easier for the child to develop a positive attitude towards literacy. The thrust of the programme in pre-school needs to be on developing a positive attitude towards literacy in children rather than on just engaging them directly with print.[9]

As established by research in early literacy, the pre-school stage is crucial for the preparedness of early literacy in schools. In the small towns and villages of India, under the Integrated Child Development Scheme (ICDS) the government has established Anganwadi[10] as a child-care and mother-care centre. It caters to children in the age group of zero to six. Apart from health support they are also expected to provide non-formal pre-school education to children. There are 13,04,611 Anganwadi Centres operational in India[11]. Around 20 lakhs Anganwadi workers were employed in Anganwadi Centres as of September 30, 2009[12]. Inadvertently, Anganwadi workers become the first formal tutors of early literacy to children. As they play a

valuable role in emergent literacy, Anganwadi workers require professional training in conducting pre-school activities, especially related to emergent literacy. **With the help of experts, an emergent literacy component in Anganwadi training needs to be developed as an area of research.** Due to its vast national network, a replicable model could boost emergent literacy activities and help standardise context-specific instructional practices at the pre-school level, especially for rural and marginalised children.

3. Right to Early Literacy – Setting Up a National Early Literacy Panel
Setting up such a panel in every state will help build indigenous understanding of "learning languages" in the Indian context. The panel should initiate long-term and multifarious programmes for early reading and writing skills, as has the National Early Literacy Panel in the USA. Since the medium of instruction in each state varies, such a panel should not be centralised and must have state-wide activities. As part of its activities, the panel should identify best practices in early literacy and document them for wider dissemination.

4. Research and Knowledge Building
The education departments at the state level should have a Research Cell for Early Literacy. This cell along with the universities or recognised non-state agencies should undertake longitudinal research projects for serious understanding of the issues. This cell should encourage micro research projects in the areas of language-learning and language-teaching methods. The cell should also ensure that any report on the reading-writing abilities of children must be accompanied by error analysis, i.e. with a complete description of mistakes made by children as part

of their continuous learning programs. This alone will help mitigate challenges faced by learners, teachers and administrators in early literacy interventions.[13]

5. Children's Literature and Content Development

"Parag" or "Tulika" are two examples of non-state initiatives in content development of children's literature. We require a plethora of age-appropriate children's literature matching cultural and sociological needs of a variety of children. Content development for children's literature requires a finer understanding of childhood development. India does not have any course on "writing for children" and it generally springs from the interest of individuals. As a result, the market for children's literature is not built by writers with any formal orientation of the children's world. The state and non-state publishing houses need to identify age-specific reading needs of children from diverse backgrounds. It should be supported by writers, illustrators, multi-media artists or professionals having an understanding of the development needs of young children. Universities or educational institutes teaching mass media or creative writing can start courses on subjects such as "communication for young learners".

6. Easy Access to Relevant Reading Material

Success in early literacy, especially in improving reading comprehension, depends hugely on easy access to age and culturally appropriate reading material. Through inventive schemes such as door-step libraries and mobile libraries, easy and shared access should be provided to children in small towns and rural areas. In order to encourage reading habits, every school must have a well-equipped library, where every possible

effort should be made to engage children in recreational reading activities. The access should also be in a multi-media format to leverage the advantages of digital technology.

7. Children's Mother Tongue in Classroom Learning

Educationists across the world have approved the use of the mother tongue as a medium of instruction at the primary school level, building upon the rich linguistic vocabulary that children bring to schools. Bridges can be built by creating language resources (story books, lexicons) to switch over from local dialect to textbook language.
Availability of educational resources and learning tools in the mother tongue gives a natural learning advantage to children. Learning English and Learning in English are two different activities. While Learning English can be a concurrent activity with the mother tongue, Learning in English should also be inclusive of the mother tongue in the initial years.

8. Special Language Teaching Courses for Teachers

Since the role of language teaching in early literacy is being increasingly recognised, it would be important for all teachers to undergo a special orientation course, focussed on the nature, structure and function of language, which also evolves strategies that will help learners' development.

Notes

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[4]K Jayaram, Report of the Consultation on Early Literacy, viewed 25 September 2013, http://www.srtt.org/institutional_grants/pdf/report_consultation_early_literacy.pdf.

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[9]Jayaram, op. cit.

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[11]Government of India, Ministry of Women and Child Development, "Data Tables, Integrated Child Development Scheme (ICDS)", viewed on 25 May 2012, http://wcd.nic.in/icdsimg/ICDS-March%202012.pdf.

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[13]A Patwardhan, "Interview to ORF" (Sir Ratan Tata Trust, 29 March 2012).

Rammohan Khanapurkar

Rammohan Khanapurkar has a master's degree in communication and journalism from the University of Mumbai, India. He has considerable experience as a lecturer at various media colleges in Mumbai. The turning point came when he realized that school systems with an overt focus on marks and rote learning have a debilitating impact at the higher education level. Following this realization he started exploring early literacy, a much talked about but less researched field in India. He joined Observer Research Foundation Mumbai, a public policy think tank in June 2011 and has been working since then on the issues, ideas and challenges in elementary education. He published a primer, 'Why Can't Children Read or Write', highlighting issues of early literacy in the Indian context.
He is currently exploring the potential of cinema/short films as a visual communication tool for educational training of rural teachers.

Ivani Capelossa Nacked

Early Childhood Library: An Innovative Contribution to Language and Literacy Acquisition

Early Childhood Library – Reading is Knowing is a new pathway that contributes to the process of language acquisition and literacy in early childhood.

Brazil is a country with great cultural and social differences, where in the past reading and literacy were not recognized as a social value and have often been marginalized in public, social, cultural and educational policies. Basic education, despite a solid national guideline, is far from being achieved or practiced, and this deficiency contributes to the child and family not having access to their basic right of social development.

Within this context, Instituto Brasil Leitor (IBL) is committed to the development of social projects supported by larger institutions and to expanding the use and awareness of books, newspapers, magazines and computers among all members of the population.

Supported through its statutory principles and successful experiences with a variety of reading projects in the country, IBL developed the Library Project for Early Childhood. Our concept is to embrace the concept of

associating reading with playing, and acknowledging that the child's perception of the world precedes the written word (Freire 1993).

The project is supported by specially designed sustainable furniture (certified wood, recycled material), mainly handmade toys (supporting small family-based businesses) and national and internationally recognized books, CDs and DVDs. These resources were chosen for the suitability of children regarding the age and stage of development. The furniture also varies for each type of community (rural, urban, etc.). They were carefully selected to support the training of educators and families of children.

As a result of this concept and investment, we have created a holistic space where children, potentially from the first months of life, have the opportunity to learn to listen, interact, think, investigate, communicate and explore the world around them. Their personal experiences therefore arise from associating books and reading with self-directed play, which we believe supports the process of developing reading as an ongoing behavior in children's lives.

The Community Participates

The deployment of these library spaces required extensive study of the best ways to ensure both the family and educators understand the relevance of the process. They introduce a number of ideas including the importance of reading, how a child develops and learns from birth, the importance of play, and how all this can all be incorporated in a library. They also allow our professionals to encourage everyone in the school community to participate in the process of language acquisition and literacy for children by understanding their own contribution to the process.

This is a challenging task but one that is of fundamental importance to the process; it requires that we build a bridge on which everyone can meet, intertwining their know-ledge, challenging pre-conceptions and enhancing their own learning. This shared understanding begins to grow with these new discoveries, allowing the momentum of the group to foster even greater potential for the future, as a community and for the children.

The following steps form the strategy for implementing the Early Childhood Library concept:

1. The site is studied where the library will be installed, including social and cultural aspects.
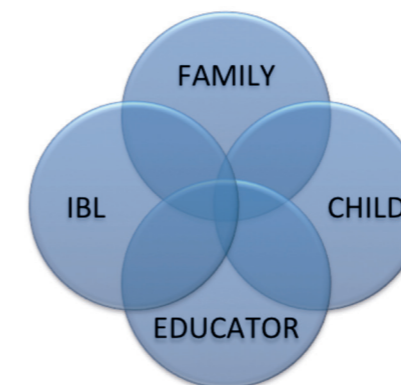
2. The facilities are verified including the building, lighting, ventilation and basic security.
3. The school/institution is researched, including number of children, age, standards and school history.
4. IBL, the project and its implementation stages are introduced to the Department of Education, school and families.
5. The library is delivered. Only the furniture is assembled; the toys and books remain boxed and separated by age group.
6. The school/educators receive instructions for the children to open the boxes and help organize the space. This is the most important stage! By opening the boxes, they begin to discover a bigger world and the bridge starts to be built. This bridge is language and literacy. The children are the constructors of their own world.
7. Educators are instructed to photograph and get a sense of this moment (both for themselves and the children).These photos are used to write a report which is sent to us before training. The school is instructed to invite at least 10 family members. Again, this is an important moment for our understanding of the group.
8. The initial training lasts eight hours and includes all educational professionals and families involved. Training is carried out in a playful way in which everyone has the opportunity to build and experience the concepts and methodologies that will be appropriate for the children in the school and their social spaces, including the family and the community.

Ongoing Research

We continue to provide training and maintain a dialogue via telephone and electronic media. Then 6 to 12 months later we return to the institution. As a result of this conti-

nued dialogue, we obtain evidence that demonstrates the valuable contribution being made by the Library Project for Early Childhood, especially in relation to social-cognitive learning processes and social reading actions. Our experience is based on eight years of study and the deployment of over 73 libraries in five different states. It has led to our initiating a research project examining how the interaction of reading and playing contributes to the social-cognitive aspects of the child's learning process.

The research is based on the assumption that children are active agents, researchers of their own life-learning context through interactions with people and with the environment, and the fact that the Library Project for Early Childhood promotes and intensifies these interactions. The IBL research focuses both on the actions and the ways in which those actions happen. The research currently in progress will be finalized in early 2014 and published later that year in three languages (Portuguese, English, Spanish) so it can be shared with an international audience.

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Ivani Capelossa Nacked

Ivani Capelossa Nacked is founder of the Brazil Reader Institute and has been its director since 2000. The institute develops education projects and encourages reading among readers of different ages, cultural backgrounds and profiles. She has been the developer and co-ordinator of the library project Early Childhood – Reading is Knowing since 2004 and developer and coordinator of the Youth Library Project since 2011. She is a member of the staff of teacher educators for the Early Childhood project. She has coordinated and managed 70 early childhood libraries, which serve approximately 30,000 children and involve more than 1,600 educators and families. Currently she is also coordinator of a research project on social-cognitive aspects of the interaction between reading and playing in children's learning processes.

Karin Taube

Talk, Listen and Read: Social Factors Impacting Literacy Acquisition

The following are **potential risk factors** in relation to students' reading performance: low socioeconomic background, parents' lack of language awareness, speaking a mother tongue other than the language of instruction, living in families with a single parent, attending a school with low-quality teaching, attending a school where the majority of students are of a low socioeconomic background and being a boy.

It is important to make sure that all parents, preschool teachers and other caregivers are aware of the extreme importance of:
1) **talking** to small children and **listening** attentively to their talk beginning at a very early age, 2) **reading aloud** to small children and continuing to do so even after the children have started to learn how to read, and 3) **fathers serving as role models** in relation to reading and writing activities.

Why Talk a Lot to Small Children?
Key findings from Hart and Risley's 1995 study give us the answers: The variation in children's IQ and language abilities is relative to the amount parents speak to their children. Children's academic successes at ages nine and ten are attributable to the amount of talk they hear from birth to age three. Parents of advanced children talk signifi-cantly more to their children than parents of children who are not as advanced. Families with little education living on social welfare used expressions for prohibition and criticism and often told their children that they were doing the wrong things or were stupid. Professional families used both business talk and other talk, like comments, encouragement and expressions of trust.

Why Read Aloud to Small Children?
Children will learn that one reads from left to right and from the top down, and they learn what letters and words are. Children get a clearer notion of how words are constructed since the persons who read aloud pronounce the words more clearly. Children hear new words that they would never have met in ordinary talk. They hear the special forms of written language (syntax and word expressions). They learn how stories are constructed and develop an interest in books and reading. Children practice being concentrated and calm during a longer period. They have the benefit of grown-ups who are important models for identification demonstrating the joy and value of reading.

Why are Fathers' and Other Male Caregivers' Input So Important for Children's (Especially Boys') Reading?

In general there are more female than male caretakers and teachers around small children. This means that small boys will not have the same access to role models of the same sex as girls have. Small boys will seldom meet male caretakers and teachers who read and show the joy of reading. Thus, boys might be at risk of developing the notion of reading as a female activity. This, in turn, might in the long run lead to less interest in reading among boys.

Thus, all parents and caretakers have to be aware of the importance of talking a lot to even very small children, reading aloud to them from the very beginning and continuing to do it even after school starts. They must also be aware of the importance of fathers and other male caretakers as role models for reading and writing activities.

How Can That Be Done?

This information can be transferred in oral or in written form (or even by multimedia) to all mothers and fathers when they become parents, during the child's health check-ups and/or at meetings for parents at their child's day-care center.

Having a mother tongue other than the language of instruction is also a risk factor in relation to reading acquisition.

How to Support Immigrant Students? The Case of Sweden.

All students with a foreign background who, according to the school, need extra support in Swedish are entitled to education in **Swedish as a second language**. The municipalities are bound to offer this kind of education.

Everyone who becomes a teacher of Swedish has to study Swedish as a second language as a part of their education. Many universities also offer shorter courses in Swedish as a second language for teachers already active in the education system.

Not all parents want their children to go to lessons in Swedish as a second language because they are afraid that 1) education in Swedish as a second language will not be as efficient as the ordinary education in Swedish and 2) that grades in Swedish as a second language will be less valuable for the student than grades in Swedish.

If the student and his/her parents want the child to have access to mother tongue education and 1) the child is using the mother tongue every day and 2) there are teachers available, then the child will have mother tongue education and he/she will get it outside of normal school hours.

In principle, it is mandatory that municipalities organize education in the mother tongue of foreign students. However, very often there are no teachers available in a

certain language or there are too few students with a certain mother tongue. A common problem is also that the demands on those who are employed as mother tongue teachers are too low.

Thus, in spite of Sweden's desire to support immigrant students as much as possible in their reading acquisition, there are problems fulfilling this goal in practice.

Prof. em. Karin Taube, PhD

Prof. em. Karin Taube, PhD, is professor emerita at Umeå University in Sweden. Previously she was a professor at Mid-Sweden University and at University College of Kalmar. She was the National Project Manager for PISA in Sweden from 1998 to 2005 and was the main person responsible for PISA-based reading literacy in Sweden for 11 years. Her main areas of research are reading with a focus on national and international comparisons; reading acquisition and self-concept; reading among immigrant students; differences in reading performances; and reading habits among boys and girls.
She is the author of numerous academic articles and reports, book chapters and books for teachers and teachers in training.

Miriam Westheimer

Beyond Language: Adapting to Cultural Contexts

Scaling up successful social programs is a powerful strategy to address ever growing societal needs with increasingly limited resources. One key component of this program replication strategy is the understanding of and adaptation to different contexts. Programs need to maintain their core operating principles and guidelines while also being flexible enough to adjust to different cultural norms and expectations. Cultural adaptation means more than just a change in language. When implementing early literacy programs in different countries, certainly language is a prime consideration, but there are other ways to adapt to different cultural settings as well. This presentation will present four such strategies used in over two decades of implementing one home-based, early literacy program (HIPPY) in over 10 countries:

1. Community-based, paraprofessional staff hired from within the local community can serve as cultural brokers. They are fully immersed in their own communities and they are trained by the professional program staff. By combining these dual perspectives, they become powerful agents of change.
2. Curricular changes, beyond language, are key. Games that rely on picture cues,

since cultural references that are common in one place yet may be unrecognizable in another. All need to be taken into consideration when implementing an existing program in a new cultural context.
3. Partnerships offer another strategy. By connecting with programs developed and designed within the community and by working collaboratively to form true partnerships, a new program being introduced into a new community will have a much great chance of successful acceptance.
4. And, while not the sole consideration, the selection of the program language must also be considered carefully.

The HIPPY (Home Instruction for Parents of Preschool Youngsters) program was created in 1969 by Prof. Avima Lombard in Israel at the NCJW Research Institute for Innovation in Education, The Hebrew University of Jerusalem to meet educational challenges facing Israeli society and its large immigrant population. Since then HIPPY has traveled far and wide, embracing tens of thousands of families, now operating in 10 countries around the world: Argentina, Australia, Austria, Canada, Germany, Israel, Italy, New Zealand, South Africa and the United States. HIPPY-inspired programs are also operating

in Denmark, the Netherlands and Turkey. HIPPY values and promotes the universal place of parents as the first and most significant nurturers of their children's education and well-being. The HIPPY program is therefore designed to build up parents' confidence and capabilities in encouraging their children's curiosity and love of learning. Enriching interactions between parent and child and an enriching home environment are the key and fundamental components in the child's readiness for kindergarten, school, community and life – and the child's motivation and capacity to realize his or her full potential.

While these are universally applicable principles, HIPPY has chosen to reach out to those families and communities, grappling daily with wide-ranging socioeconomic and educational challenges, and to support them in ensuring that their children have equal access to educational opportunities.

Behind this mission and its principles lie certain assumptions – the first is that parents everywhere want the best for their children. Parents from one part of the world, one society, one neighborhood – or even from under one roof – may well differ from another on what they mean by "best," but each definition is, nevertheless, an essential, guiding force of parenthood under that roof, in that neighborhood, society or part of the world. Secondly, and not unconnected, there's pure biology. Parents are "programmed" to teach their children just as children are innately "wired" to learn from their parents and the world around them. Children, notwithstanding their tremendous individual differences in pace and temperament, are all natural learners, who learn by "doing" – something we continue to do throughout our lives.

Ideally, no one is better positioned than the parent to lay the groundwork, introduce the child to language and concepts, and nurture skills the child needs for school and life. And within that process of discovery – and it is discovery for the parent, too, who learns how his or her child learns, what is of greater interest and what less – in that process, another goes on: the strengthening of the bond between parent and child. That bond is the source of the child's competence and confidence in his or her subsequent interactions with others and the wider environment.

HIPPY's role is to support parents in these interlinked, symbiotic processes. By providing knowledge, tools and materials, HIPPY builds up the parents' skills, experience, confidence and pleasure as effective guides in their child's learning.

This accumulation of confidence and involvement takes the same parents into their children's kindergartens and schools, into dialogue with educators, communication with other community agencies and participation in activities which serve the community and well-being of all its members.

One more assumption is inherent in HIPPY's philosophy: Parents, with training and support, can teach and help other parents. Thus, HIPPY trains parents to become home visitors, bringing HIPPY to new participant families. And this dimension further expands HIPPY's dynamic, grassroots, community-building role.

HIPPY helps families who want to move beyond barriers of risk. More often than not, risk means socioeconomic distress – poverty, which can have myriad causes and devastating consequences, such as malnourishment

inhibiting a child's normal mental and physical development.

Frequently, poverty is characterized by a perpetual and tragic generation-to-generation cycle, an inertia of hopelessness and depression, or desperation which can turn into alcoholism, drug addiction and crime. This cycle can be broken, however, by quality education, from preschool through further education, opening up employment and higher income opportunities. And yet, while there is no longer any question that investment in early childhood education is an imperative step in the long-term and multifaceted process of poverty alleviation, most countries have not got round to adequately allocating such resources.

Poverty is often the lot of native and immigrant ethnic communities, because past or present discriminatory policies, language and cultural differences impact on them, dragging them into the poverty cycle if appropriate support and guidance are not accessible. HIPPY works in many countries with native and immigrant communities: Aboriginal communities in Canada, Australia and New Zealand, where Maori communities are also served; in Israel, the Arab community – itself made up of diverse groups – and immigrant populations of Ethiopian and former Soviet Union origins; Hispanic and African-American communities in the US; and Turkish Muslim immigrant groups in Germany. In all these and other countries, HIPPY supports families who want to help their children break out of marginalizing constraints and succeed in the larger society in which they live.

Designed for parents and their children aged three to five years old, HIPPY program mate-

rials consist of weekly activity packets, which include storybooks, workbooks and "basic supplies" such as geometric shapes, scissors and crayons. The activities are set out like lesson plans for the parent, providing them with developmentally appropriate activities for their children with the objective of ensuring a successful and enjoyable learning experience for parent and child working together.

In the program, parents work with their children on language development and cognitive skills including problem solving, logical thinking, perceptual and other school-readiness skills. Reading together and talking about the storybooks help develop a love of literacy in the family, and constitute significant moments of parent-child interaction, of bonding, which remain in both children and parents' memories.

The activity packets build on the storybook content to expand a wide array of literacy skills – such as phonological and phonemic awareness, letter recognition, story sequencing and completion, creative storytelling and early writing experiences. Parents are encouraged to build on the information in the activities in all areas of their children's lives, nurturing all areas of their children's development.

Community-based Paraprofessionals

As a member of the community who knows the language and lives the culture of the families with whom she works, the paraprofessional home visitor is able to build trust and ensure HIPPY's cultural relevance for the families with whom she works. This relationship of trust is further reinforced by empathy on the part of the home visitor, born of her familiarity and often direct experience of

the social, cultural and economic challenges and difficult circumstances faced by the parents.

The HIPPY home visitor is both an equal and a role model delivering a peer-to-peer service, reaching parents and families where they feel – and are – at home, in the child's primary learning environment. The parent enjoys the one-to-one attention of the home visitor and is not inconvenienced by childcare or transport concerns.

Shown above are home visitors working with mothers in New Zealand (first) and El Salvador (second).

The home visitor is not only the link between the family and the program, but also brings

isolated families together with the community and marginalized communities with the larger social environment. The home visitor encourages the families' participation not only in HIPPY group activities and events, which involve community personalities and institutions, but also in community activities beyond the program; they are also encouraged to benefit from services offered to the community: the local health clinic, well-baby clinic, library, community center and so forth.

In these ways, the home visitor plays a critical role in the ensuring that the program is culturally appropriate and a good fit within each of the diverse community contexts within which the program operates. While absolutely critical, this task is not simple. The paraprofessional home visitor has to balance carefully between representing the professional culture and expectations of the organization that is sponsoring the program (and paying her salary) with the local culture of the families she serves. For example, conflicts related to time management often arise. Many organizations require careful documentation of time sheets and do not pay for work conducted after hours or on weekends. In some cultures, however, the concept of time is more fluid and so, in order to keep up with her work, the home visitor may need to visit in the evenings or on weekends and sometimes has to visit several times before she can actually find quiet time to work with a parent. Experience with HIPPY has shown that the women hired from the community to serve as cultural brokers are key to the success of the program.

Curricular Adaptations

Based on the themes and characters presented in a series of simple children's stories, HIPPY introduces skills and concepts in a

progressive manner, first using the physical body, then concrete objects and finally representation of objects in pictures, followed by opportunities for practice and learning. Wide-ranging, fun-learning HIPPY activities, including reading, writing, drawing, singing, rhyming, games, puzzles and cooking, are used to enrich skills and concepts a child will need in the formal educational framework. Many of these activities are based on universally accepted norms and expectations for school readiness, which form the core of the HIPPY curriculum.

Books written specifically for programs in Australia and New Zealand.

Still, constant reviewing and updating ensures that HIPPY materials are culturally relevant for families and reflect current educational research findings. The program is sufficiently flexible to facilitate initiatives for change, including additional materials and extension activities developed in different member countries. Thus, for example, Canada has created a parallel program track for Aboriginal families. In New Zealand new bi-lingual storybooks were written by local authors, and parents can read the same story in English and Maori. As a side benefit, this is also a way to reintroduce native languages into the largely English-

speaking society. In Australia several books with authentic Aboriginal customs were introduced. Importantly, these new books are used by all the Australian families, not only the Aboriginal ones. In Israel the program reached out to Ethiopian immigrants who were not literate in any language with new books in Amharic that relied more on pictures and the tradition of oral stories than on the written word. And to meet the needs of the growing ultra-orthodox community, they adjusted the pictures to reflect the code of modesty required within that community. In Argentina, while they adapted the Spanish curriculum from the US, they incorporated their own books, all written by well-known Argentinean children's-book authors.

Partnerships
Another strategy used to ensure a cultural fit within a new country or community is to partner with local organizations or with international organizations also sensitive to the importance of cultural adaptation and fit. The first example demonstrates a collaboration between HIPPY South Africa and a local AIDS awareness and education campaign. In this case, the HIPPY home visitor is both teaching the mother the educational activities for the week and also providing critical AIDS prevention information. Sesame Street has a heightened sense of the needs for cultural relevance and so, by partnering with them, HIPPY Israel was able to provide culturally relevant home-based activities to the Israeli Arab community.

These types of partnerships can enhance the work of each program and, when planned carefully and strategically, can ensure a deeper cultural rooting of a program that is being replicated in diverse settings.

This home visitor is doing HIPPY activities with the mother, which will be followed by an AIDS awareness activity from the booklet on the table.

(مسودد)
مرشد للمركزات والمرشدات

شارع سمسم
محبوب والحروف الضائعة

HIPPY International has partnered with Sesame Street to create home-based activities to accompany new Arabic programming.

Language
The basic principle behind a program like HIPPY is to provide parents with the support they need to engage in educational activities with their children at home. Such support is a complex matter and not a case of "one solution fits all." For example, some communities prefer preschool programs like HIPPY to be delivered in the country's official, first language. In Germany children must know German to enter first grade and parents from immigrant Turkish communities feel that HIPPY in German will provide a solid basis. At the same time, the program materials offer a means by which parents can learn the new language simultaneously with their child.

Other minority communities prefer some or all elements of HIPPY material in their native language because they feel more confident and in control of their role in the child's learning process, because it facilitates richer verbal interaction and greater spontaneity between parent and child, and because there is more room for inclusion of values, codes and references. The same parents, however, may well dismiss such culturally sensitive (and politically correct) practices on the part of state or school authorities once their child gets to school, because they believe that at this juncture, the child's potential to "swim in the mainstream" is best-served by schooling in the country's "first" language.

HIPPY relates sensitively to all the communities it serves, providing materials in the language preferred by the parents and community, and encourages the production and use in each country program of native-language and/or bilingual storybooks and CDs. The paraprofessional HIPPY home visitor is able to make the most comfortable link between

the curriculum materials and the families, because she or he is from their community. National programs are encouraged to work together with HIPPY International to adapt their materials to the local context. And strategic partnerships are formed whenever possible to make the best use of limited resources and to immerse the program in the local culture and context. For more information about HIPPY International, please visit www.hippy-international.org.

Dr. Miriam Westheimer

Dr. Miriam Westheimer has a master of arts in teaching English to speakers of other languages (TESOL). She has taught English as a foreign language to children and adults in Israel, and English as a second language to adults in the US. Upon completion of her doctorate in education at Teachers College, Columbia University, she began working to adapt and disseminate an innovative, home-based educational program developed in Israel called HIPPY (Home Instruction for Parents and Preschool Youngsters). Today, in addition to her work as an independent consultant, she serves as the director of the international network of HIPPY programs.

Her current interest lies in the development and dissemination of program models, service linkages and applied research methods that are designed to best support children, youth and families. Through the writing of a grammar book on English as a second language, articles on the ethnographic research method, dropout prevention strategies and research on HIPPY, and through her numerous speeches, workshops and panel presentations, she attempts to bridge the worlds of research, theory and practice.

Catrin Anderer

Family Literacy (FLY) in Hamburg, Germany: A Project to Improve the Literacy Skills of Children and Parents

What Is Family Literacy?
Family Literacy (FLY) is an intergenerational approach to enhance the literacy skills of families. It focuses on assisting parents to support their children in the process of acquiring written language skills at home. An additional objective is to intensify cooperation between home and the school or kindergarten the children attend. Family Literacy combines parents' education, preschool and primary school education as well as teacher training.
The intergenerational approach achieves a multiplier effect. Parents are motivated to improve their own literary skills and thus assist their children at the same time.

Why Is Family Literacy Important?
Hamburg is the second largest city in Germany with a culturally and ethnically diverse population of 1.8 million inhabitants. Of that population, 29.2 percent is of immigrant background and 48 percent of all children below the age of five are multilingual and of immigrant background.

A child's early years are essential for the development of written language skills and hence school performance. Many children fail at school because of a lack of support of home in their early years. Some of them never learn to read and write well enough to participate actively in society.

Establishing an everyday culture of reading in the family and introducing children to written language are elementary conditions for preventing functional illiteracy. But some families do not hold reading and education in high regard or cannot find the time to help their children, or they simply do not know how to do so.

How Does Family Literacy Work?
One of the hallmarks of the Family Literacy concept is that the two core sources of support (home and school) are closely integrated so that the child can benefit from the full impact of the support provided.

The work with parents takes place in school and is based essentially on three key elements:
1. Active participation of parents during their children's lessons
2. Work with parents (children excluded) parallel to teaching
3. Joint out-of-school activities

Afternoon or evening family literacy groups are particularly important in cases where parents are at work. If neither father nor mother is able to take part in the FLY session, the family may send another member, i.e., grandmother, grandfather, aunt. All lessons and additional activities are supported by a team consisting of a preschool teacher and a teacher with a special qualification in teaching reading and writing. The aim is to improve parents' and children's competencies in reading, writing, speaking and listening.

The FLY Pilot Project in Hamburg

The FLY pilot project in Hamburg, initiated by Dr. Gabriele Rabkin, started in 2004 and ran until 2009. It involved the participation of parents of preschool children aged five (continuing in grade 1). In cooperation with the UNESCO Institute of Lifelong Learning and the State Institute for Teacher Training and School Development, this Family Literacy pilot project involved eight schools and one kindergarten in socially deprived communities in Hamburg with a large migrant population.

Objectives of the project include:
- Promoting children's early literacy skills
- Improving parents' literacy skills
- Intensifying cooperation between home and school and cultivating parental involvement
- Enhancing the training of teachers and educators

The project was supported and funded for five years by Germany's Federal-State Commission for Educational Planning and Research Promotion as part of the program Promotion of Children and Young Adults of Migrant Background.

The FLY project is an example of a successful transfer of a pilot project that started as an initiative of individuals and grew into an institutionalized policy-integrated program. By 2013 it had been implemented in more than 70 schools with 260 FLY learning groups.

Other German states beyond Hamburg have started similar projects to improve family literacy (e.g., Berlin, Saarland, North Rhine-Westphalia).

In 2010, UNESCO awarded FLY Hamburg the King Sejong UNESCO Literacy Prize.

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Catrin Anderer

Catrin Anderer has been a qualified teacher for primary and secondary schools in Hamburg, Germany, since 1998. During her teaching year at various elementary schools she gained first-hand experience as a teacher in classrooms focusing on integrating socially disadvantaged and mentally challenged children.
In 2003 she became a lecturer at the Hamburg Institute for Teacher Training and School Development (Landesinstitut Hamburg) in the area of teaching German at elementary schools. She also serves there as a trainer for student teachers at primary and secondary schools.
She is one of the co-authors of the current German curriculum for elementary schools in Hamburg. She coordinated the Hamburg school initiative "Alles-könner" which developed various approaches to promoting specific competencies. She has also served as the school expert for PLUS – Project Lesen und Schreiben (PLUS – Project for Reading and Writing). Her special interests are family literacy, parental involvement, inclusion, literary learning and individualized learning.

Ira Gawlitzek

Multilingualism, Literacy and Their Natural and Cultural Prerequisites

Literacy is an essential factor in determining educational success and it also correlates with basic scientific and mathematical competences to a considerable degree. There are at least two prerequisites for literacy: successful oral language acquisition and ample experience with books and all sorts of texts. Oral language development and literacy are closely linked to each other. In keeping with the Matthew Effect, the literate learn more about language; those struggling with language will also struggle with literacy.

What role does multilingualism play in all this? The main point of this paper is to stress that from a linguistic point of view multilingualism is no obstacle to language acquisition and to literacy.

There is plenty of evidence that children can cope with acquiring several languages from birth or early on (cf. work by Bialystok, Gawlitzek, Genesee, Meisel, Müller, Paradis, Tracy). But why do so many children struggle nevertheless? They struggle because a greater number of acquisition contexts hinder or slow down language acquisition. This is especially the case in educationally distanced families and families with a migration background. Socioeconomic background

to a large extent determines educational success in the US (cf. Dickinson et al. 2006, 210) and also in Germany (Biedinger 2010, 19 ff). Children acquiring a language need rich input in face-to-face communication, which is most promising early in life rather than later. This holds especially for second language acquisition (cf. Meisel 2004, Thoma and Tracy 2006, Haider 2010). The input that children in migrant or socially distanced families receive might be good enough for basic interpersonal communicative skills (BICS), but often it is not good enough for the more challenging academic forms of language (CALP) (cf. Cummins 2008) needed in school, especially if reading is not a common activity in the family.

There are also cultural factors that play an important role in the school context (Hoff-Ginsberg 2000, van Kleeck 2006), as they might differ between the child's family background and the desired behavior in school. Thus they might influence a child's school success or failure. To name but a few: In Western societies, writing serves a multitude of functions and is basically omnipresent; an extreme counterexample is the Cree community in Canada where a writing system was invented and implemented to stay in touch with each other. This, however,

fell out of use as soon as the telephone was invented. In many Western countries, parents' engagement in education is favored and parents engage in literacy interactions with their children from six months onwards, while Hispanic families often start to do this only at age three.

The family, media, kindergarten, (pre)school, and peers are the major influences on a child's reading biography (Fritzsche 2004, Hurrelmann 2004, Rosebrock 2004). Each one of them might make the difference between a reader and a nonreader. Becoming a reader is particularly important as reading ability in first grade influences basic mathematical and science skills. It is influenced to a large extent by the child's language in the last year before school. Thus, everything must be done to enhance children's language development and competence before school starts. By consciously introducing texts and reading activities at a very early age much can be done to improve language competence and literacy development at the same time. As a kind of "side-effect," shared book-reading activities are an excellent way to get children to focus and concentrate on a single activity that is, again, needed in school.

Literacy is not a natural ability, as is oral language acquisition, but a cultural skill that needs to be learned and practised. If families do not support this cultural skill, kindergarten, preschool and school become all the more important. Kindergarten and preschool teachers need to know (more) about language(s), e.g., some crucial morpho-syntactic facts (cf. Tracy 2008) and how they are acquired (e.g., sequence of acquisition, word learning versus rule learning). They can then estimate children's linguistic

development more soundly and decide how to support the children. Books are one important factor in this process; unfortunately, not all kindergarten/preschool teachers are aware of this and know how to use them (Mehler and Weitkamp 2013).

We need to show families how children's books support language acquisition as well as literacy development. Families with a migration background need to know that reading with their children – in the home language or the educational language – will support the children. Watching TV without engaging into conversation about it, however, does not enhance language acquisition and literacy skills. Reading material should be made available to these families and could also include bilingual books, which would signal esteem for the home language. Apart from providing input in explicit language forms (Gawlitzek 2013), books open new worlds and they offer an excellent chance to observe how others cope with difficult situations and feelings, such as anger or fear. In other words they offer the children models for solving their problems.

It is often claimed that multilingualism and multiethnicity provide a chance for any society, but if society holds up the belief that they are monolingual and monoethnic, multilinguals will have a hard time – not because growing up with more than one language is a problem, but because it may be hard for the learners to receive enough rich and challenging input to figure out how the language works and to get access to academic language. If they miss out on this, they are at risk of becoming poor readers, unable to actively take part in modern society. We should do everything we can to prevent this.

What Do Children Need?
- Frequent face-to-face adult-child interaction, at best these should be dyadic
- Cognitively challenging exchanges, pursuing topics in depth
- Parents/teachers using rare words, a variety of vocabulary and syntactic structures
- Decontextualized talk about past events, future planning, pretend play
- Later in school: a combination of doing, talking, reading and meaningful writing, (cf. Dickinson et al. 2006, Webb 2010)

What Do Families Need?
- Knowledge about the interplay of language development and literacy and its determining influence on educational success
- Knowledge about the kind of interaction with children that is most helpful

What Do Teachers Need? Knowledge about a Number of Factors, Including:
- The structure of language(s)
- How languages are acquired
- That multilingualism does not overwhelm children
- How language development and literacy interact
- How they, the teachers, can support the children

There is also a political dimension to this. Elaborating on it, however, would go beyond the scope of this short paper. But it is time linguists and other specialists in language development inform politicians more thoroughly and more systematically about what research has discovered, so that these results can feed into a well-informed development of the educational system.

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Dr. Ira Gawlitzek

Dr. Ira Gawlitzek is currently a visiting professor at the Institute of Linguistics, Universitiy of Vienna, Austria, and she has been project leader of an evaluation study on the effects of supportive measures on educational achievements for children in kindergarten and primary schools, funded by the Dieter-Schwartz-Stiftung. She has been a senior lecturer at the English department at University of Mannheim, Germany. Her research interests: First and early second language acquisition, Multilinguism and Literacy.

Charles L. Mifsud

Multimodal and Digital Literacies in the Early Years

Young children are born immersed in a digital world and in practices relating to popular culture and media. As they are growing up they develop a wide range of skills, knowledge and understanding of this world. Parents and other family members scaffold this learning, either implicitly or explicitly. Children engage in family social and cultural practices which develop their understanding of the role of media and technology in society. Digital technologies have introduced an extensive range of multimodal dimensions into young children's learning of literacy. Young children are active users of digital technologies and engage in a wide range of multimodal experiences (Marsh et al 2005). This has implications for policy and practice affecting the early years. The professional development programmes of early childhood educators need to consider these dimensions.

Digital Technologies in the Home and at School

In the first instance, young children engage with digital technologies at home. The family context makes a difference to young children's engagement with these technologies. There seems to be the same repertoire of direct pedagogical actions across families when they support their children's use of digital technologies. However, the children's experiences are different because of the distinct family contexts in which they engage with the resources.

Young children are already in possession of digital knowledge and competences when they arrive in nursery classes, to some extent as a result of varying levels of parental intervention and modelling. They are also in the process of acquiring new knowledge, skills and attitudes. Parents' involvement with digital technologies is often characterized by conscious but sometimes uncertain efforts to limit opportunities and access to digital technologies in the perceived best interests of the children (Clarke 2006). The passive use of technology and screen media should not be a replacement for active play, play with concrete materials, engagement with other children, and meaningful interactions with adults.

There exists a discordance between technology use in the home and at school as digital technologies are used usually in a limited manner in classrooms in early years (Aubrey and Dahl 2008). The possibilities afforded by these early digital experiences are to be more fully exploited and accommodated within the classroom. Digital technologies

are to be implemented to support the development of essential early literacy skills, increase motivation and support children's engagement with literacy and learning.

The Role of Digital Technologies in the Development of Early Literacy

Literacy cannot be perceived solely as a print-based activity when children access text in a range of modes, e.g., on computers, television, tablets, smart phones, etc. Traditional notions of literacy have been challenged (Cope and Kalantzis 2000; Kress 1998; Kress 2003; Pahl 1999). "Emergent literacy" goes beyond print literacy and encompasses a range of multimodal practices (Makin et al 1999; Marsh 2003; Marsh and Thompson 2001; Pahl 1999). They are complete acts of literacy practices involving a complex range of skills, knowledge and understanding. We need to define emergent literacy practices in relation to wider definitions of literacy which incorporate digital technologies and multimodal ways of making meaning (Kress 1998).

Cairney and Ruge (1998) identified four distinct purposes for the use of literacy in the home: for establishing or maintaining relationships; for accessing or relaying information; for pleasure and/or self-expression; and for skills development. In their study, digital literacy practices were firmly embedded within each of these four areas. Some children watched as their parents read and responded to text-messages and were being sensitised to digital print mediated through mobile phones. Literacy as a means of pleasure and self-expression was strongly evident throughout children's engagement with digital technologies. This pleasure was recognized and celebrated by their parents. Literacy as skills development was embedded within children's digital literacy practices,

like reading text on the screens of computer games.

Digital technologies and multimodal texts offer the potential to support the development of early literacy skills and present multiple means of representation. They should complement oral/aural activities in the classroom. Children can listen to or re-read favourite classroom stories and other texts through online programmes or applications. They can also engage in more dynamic and interactive literacy activities.

The lack of focus on children's emergent digital literacy skills in classrooms is due to limited teacher knowledge as these are usually addressed in a limited manner in initial education courses for early childhood educators (Hart 2000). These educators generally express positive attitudes towards the role of popular culture, media and new technologies in children's lives, including demonstrating positive attitudes towards their use of digital games. However, they do have concerns about the perceived amount of time children spend on these activities. Some early childhood educators may hold negative views towards the role of media in young children's lives. Seiter (1999) suggests that there are two very different paradigms in which children are viewed either as active meaning-makers of a range of media or as passive victims who need to be protected from the influences of the media.

Understanding the role of digital technologies in the process of young children's literacy development is crucial to ensure that all children have equal access to opportunities to learn in schools. Some young children are already capable of navigating effectively around screens, connecting and taking

meanings from words, sounds and inter-related images. Others have more limited access to computers and use of the internet. Children need to become proficient in the uses of the new media in order to become full members of a society in which knowledge and communication are highly prized. It is essential for early childhood educators to be provided with the curriculum guidance and training they need to help them understand how this might be achieved most effectively. The observation of children's uses of computers at home might help to convince some early childhood educators of the pedagogical benefits for the development of young children's literacy in diverse modes and media.

Young children should engage with digital literacies in ways that encourage "playfulness, agency and creativity" (Burnett 2010). Digital technologies should build on the creativity of children and provide opportunities for engagement and response. They should encourage children to become authors and allow activities which involve the generation and construction of a story or message. Some applications allow children to create stories and comics and to share these with an audience outside the classroom walls. Such technologies should provide robust supports to meet the diverse needs of pupils in the classroom and through embedded supports they should reduce the barriers to text.

A close analysis of literacy practices and events allows us to explore the potential differences between the modalities of interaction and the affordances of traditional and new media. This should allow us to identify what early childhood educators need to know and do in order to support the developing literacy practices of all children across a

range of media. Au and Raphael (2000, 170) argue that "ensuring educational equity involves helping students become literate in all artefacts of literacy, not only those historically used and present in today's society, but those likely to become prominent in the future".

The nature of the learning environment, the persons around the child, the material resources available and the kinds of pedagogic interactions mediating those experiences are all crucial to young children's success in literacy learning. This applies also to multimodal means of communication. The availability of resources and a sustained focus on the nature and quality of relationships mediating children's experiences around different media and texts are crucial to the effectiveness and depth of learning for all children (Green and Hannon 2007; Neuman and Celano 2006; Yelland and Masters 2007).

The Educational Potential of Digital Games

There is increasingly widespread evidence of the positive effects of digital games on learning (Coller and Scott 2009; Echeverria et al 2011; Green and Bavelier 2003; Ke and Grabowski 2007; Klopfer and Squire 2008; Papastergiou 2009; Peterson 2010; Prensky 2006). Gamers are able to explore different identities and "inhabit" roles, which would normally be inaccessible to them (Akkerman et al 2009; Shaffer et al 2005; Winn 2002). They are able to alter various situations and environments, which in real life would be unalterable, view various phenomena which may be impossible to witness for real and observe the behaviour of particular environments in different periods of time and changing over time (Rickard and Oblinger 2004; Squire 2003; Squire 2008). For learning to be

successful, learners need to feel engaged, be aware of the value of their role within the whole process and feel that their investment in the task will bring about progress and goal achievement (Robertson and Howells 2008). Motivational features which contribute to effective learning are present in digital games (Barab et al 2005; Garris et al 2002). When carrying out tasks, immediate feedback, whether positive or negative, is given, which motivates the player to proceed or to keep trying. Explanations for incorrect responses are rarely given, therefore players need to reason and deduce a way forward. Players become familiar with and practise the game so as to improve and to be able to move on to higher levels. Digital games require high response rates and therefore increased levels of concentration and little distractibility for the player to be able to advance. The unlimited ceiling on performance in games provides gamers with new challenges and different ways to reinforce and practise their current skills and introduce new skills.

Digital Games and Literacy
There exists a "symbiotic" relationship between digital technologies and literacy (Andrews 2007). During game play, the learning of and exposure to words and symbols takes place while experiencing the actual reality of these words (Burnett 2010). Media-rich early literacy programmes, which include online games, have significant effects on children's literacy development (Penuel et al 2009). Children who participate in these literacy programmes have significantly better letter-naming and letter-sounding skills, demonstrate significant story and print concepts, and knowledge of letters in their names. Digital games, particularly those involving role-play, can have a similar func-

tion to books, in that they provide students with ideas for their creative writing (Harushimana 2008). Students may exhibit writing skills in plot development and description of main characters, which have been attained through the digital games. Children who use digital games show improvement in writing skills, higher level sentence and question construction, and basic literacy skills (Owston et al 2009). In some situations statistically significant gains in spelling and slight gains in reading comprehension were registered after the students played digital games (Rosas et al 2003). Parents and teachers can support what children are learning by having conversations about games they are interested in.

Collaborative Multimodal Dialogue
The quality of the relationships and interactions mediating children's activities is crucial for their literacy development. Neuman and Celano (2006) studied attempts to raise the achievement levels of children from low-income families by increasing the provision of print and technological resources in branch libraries (2006, 181). They found that despite transforming the provision of material resources, differences in "literacy habits" around print and electronic media appeared to widen between middle and low-income families. They suggest that for all children to gain maximum benefit from resources, librarians require training that focuses on "affect and attachment, informal instruction, guidance and informal monitoring very early on" (2006, 199).

The level of education of the child's main care-giver and home/school beliefs and practices around new technologies influence the kind of home and school interactions that children have. Some children in the

nursery engage with a range of human and material resources in more strategic ways than others. These either reflect or contrast with characteristics of their learning experiences at home. Children's levels of awareness are heightened through interactions with adults who explain and model processes through multiple modes in response to the children's goal-orientated actions and questions (French 2007).

Wegerif (2008) suggests that the quality of human relationships is an important precondition for effective learning and argues that: "As with infants' learning to point, a dialogic perspective argues that education more generally takes place within dialogic relationships in which students see things from at least two perspectives at once, their own point of view and that of their teacher" (Wegerif 2008, 352-353). These activities serve to heighten the children's awareness of the nature of the practices and discourses in which they participate and their ability to act strategically in the future. Children's learning with both new and traditional literacy-related technologies are supported through collaborative multimodal dialogue. However, there are profound differences in the ways that children draw on different verbal and embodied modes when interacting with different technologies.

Benefits of Digital Technologies for Dual Language Learners
In bilingual situations where children have a home language and English, digital technologies may facilitate active practice in the four language skills (speaking, listening, reading and writing) in both languages. However, this should not serve as a substitute for personal interactions with significant others. There are many online resources availa-

ble for English. Home languages may be supported also by using digital technologies to create stories and other resources when these are not readily available online.

Conclusion
It is essential that those who work with young children have the required digital literacy skills as digital technologies become increasingly pervasive throughout the lives of young children. They need to make informed decisions about how to make best use of technology to promote early learning. Digital literacy for early childhood educators involves thinking critically about how to select, analyse and use technology and making professional judgements about its impact on the development and learning of young children (NAEYC, 2012). Early childhood educators are to be provided with guidance through continuing professional development opportunities and the sharing of good practices. Parents and others who may have the care of young children in the home require guidance too. Digital literacy skills for children involve having a critical outlook on technology in order to be able to make wise choices in their use of technology.

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Christian Füller

The Book Is Dead, Long Live the Book

When Lynn Stefano showed the first picture from her case study, it became abundantly clear what we mean when we talk about promoting reading. Lynn, whom I call a "letter worker" from South Africa, projected the picture of a 13-year-old boy in the province of KwaZulu-Natal onto the screen. What you saw was the boy and, behind him, a few huts in a rolling landscape with high grass. You could also see the boy's mother; his father seems to have gotten lost along the way. A lovely landscape, a bright-eyed boy, a loving mother – and the last question that enters your mind in such a scene is: Where can you find a book to read? Or borrow? Where can you find letters that can be used to form words, sentences and, ultimately, a story?

The only thought that went through my head when I saw this picture from South Africa was: Where, for God's sake, is it possible to learn to read in such a place? And why would you?

That, of course, is the uncultivated, prejudice-laden first impression of a person who lives in a city in the Western Hemisphere. A city that is bursting with bookstores in which children are confronted everywhere with letters and things to read. Even the antiques dealer has two baskets of already-read books in front of his store. And wherever you go, people are reading, even if that means they are holding small screens in front of their faces, tapping away on them with their fingers. Perhaps in order to better recognize the letters contained there.

Doing What It Takes to Read

You could argue that the entire conference in Leipzig was a world-spanning competition to see how we can do a better job recognizing letters. In the Social Parameters workshop, participants looked at which social barriers prevent people from gaining access to books and literacy. Such as in India, as Rammohan Khanapurkar so impressively demonstrated, where there are 100 languages and 5,000 dialects – and thought-provoking conflicts such as which of the 57 words for water should be used in books, teaching plans and classroom instruction. Or in the UK, where Booktrust gives children a book even before they are born. Of course, StoryBump doesn't place a book on the stomachs of pregnant women, but instead motivates them to read out loud to their children before the youngsters have come into the world. And in Brazil, as Ivani Capelossa Nacked has shown, people are attempting to create libraries in new spaces and different con-

texts as a way of making them an everyday part of life. You will even find libraries with kitchens you can cook in.

What might cause traditional librarians in Germany to break out in a sweat – due to anger or fear, or both – becomes quite plausible in Leipzig: Reduce the distance between children and books; integrate reading into everyday activities; make reading incredibly fun for children. Ivani Nacked said that reading is play. Lynn Stefano said that reading and dancing are a particularly winning combination. And in a nearby room, speakers from Turkey and Malta described how they introduce reading into family settings. In yet another room, presenters from six locations around the world – including China, the Southern Tirol in Italy, and Mexico – were showing examples of how they had transformed libraries into very inviting spaces. And the most important goal in all of these efforts was: Do whatever it takes to read! Provide people, meaning children, unrestricted access to books. Long live the book!

But wait. Isn't everyone saying that books are doomed? Don't we hear day in and day out that books are being discarded, that the content that still sells the best – the only content – is material that can be combined with (meaning marketed using) television, women and, sorry, sex? That the Web 2.0 community, which is growing in leaps and bounds every day, is calling for everything to be made available online, or at least as an e-book. Even that there are people in this community who are seriously demanding we stop teaching children in school how to write by hand. "Cursive writing, how ridiculous!" they say (to exaggerate just a bit). "Soon everyone will have a tablet anyway!"

A Fundamental Change

In other words: Gutenberg and the letters he used to print his bibles are dead. Long live the literate cyborg with its digital glasses on its nose, a bonsai screen that makes it possible to be forever online and "on." The book is dead!

The book is alive. The book is dead. Which is it? No idea. No one knows. And anyone who says they do is a charlatan.

Although there are solid, rational arguments for both sides. We are living in a time of transition. The way in which we recognize letters and combine them in order to create sensible sentences is in the process of changing. That means something fundamental is changing: the culture of the only life form on the planet that uses symbols and their depiction to communicate with each other. The way in which we communicate, learn, ensure our past and future is mutating. In short, everything is changing.

There is a paradigm shift taking place in school, for example, which is still based on the culture of printing started by Gutenberg and which uses teaching plans, textbooks and handwritten x's on paper. More precisely: It seems to be the case. No: It's a fact. When a country such as Turkey signs a contract worth millions in order to provide each of its school students, from Istanbul to East Anatolia, with a tablet, then that is not just news for publicly listed global players such as Apple, Intel and Microsoft, it is also a signal that the Third World, bordering on Europe, is making the switch to computer screens even before books have fully arrived there. Furthermore, haven't children themselves long made the switch? The well-known Kim-and-Jim surveys on how children and

adolescents use media show that smartphones, meaning those handheld, Internet-compatible knowledge machines, are becoming increasingly prevalent: In 2010 only 8 percent of all schoolchildren used a mobile phone capable of connecting with the Net; in 2011 it was 22 percent; and in 2012 it was 40 percent. Rumor has it there are children's birthday parties at which six or seven of the 11-year-olds present have a smartphone in their pocket. Meaning 110 percent of their attention, or so it seems, is taken up by these devices.

Under Pressure, But Still Important

The challenge of the complex situation pertaining to books and reading is that it isn't a situation you can really steer in one direction or another. We don't really know where this journey involving books and letters is going. Are sensory elements really being transformed into tiny droplets, as very clever Martin Lindner never tires of repeating? (And he should know, since as a professor and researcher he is as much at

home in the literature as in the world of Web 2.0, whose first European conferences he organized.) Or isn't it true that it is the written narrative that continues to reveal the morsel of meaning that fundamentally holds the world together? Whether that narrative be hidden between the covers of a book or in the e-reader that bears the interesting, book-referencing name of Paperwhite.

What we certainly do know is that the book is under incredible pressure. And what we can say with equal certainty is that the book is incredibly important. Otherwise Rammohan Khanapurkar would not maintain that in India books and schools must remain the central location for learning – in order to hold his multifaceted country together culturally. Otherwise PISA researchers, who like to bandy about countless variables, would not always be able to point to one sole factor predicting solid prospects of a literate life: the number of books found at home.

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Simone C. Ehmig

Digital Media`s Potential for Reading Promotion

How Reading Aloud Can Advance Language and Reading Socialization

Reading aloud to children and spending time with them enjoying picture books is considered to have a major impact on early language development. After all, "in no other everyday communications situation with children … are objects named as frequently as when picture books are being looked at." (Groeben and Hurrelmann 2004, 174). By looking at books, listening to stories and being read to, not only do youngsters acquire vocabulary and knowledge of linguistic structures, they also discover which objects are identified using words and language. They discover worlds that exist or might conceivably exist outside of their immediate environment (Singer 1995).

A key factor ensuring that reading aloud and storytelling are successful is the proximity children experience to a trusted adult and the exchange they have with them (Böhme-Dürr 1990). From a neuroscientific point of view, a child learns "as soon as it can sit on the lap of a trusted adult, associating the act of reading with the feeling of being loved." (Wolf 2009, 98). In such situations, communicating with the adult during and after the encounter is key, since that is when the meaning of what is read can be referenced again and again and thereby consolidated (Groeben and Hurrel-

mann 2004, 177). In addition, reading aloud, storytelling and looking at picture books also offer children the opportunity to learn empathy, to develop the ability to put themselves in someone else's place and to discover what it means to engage emotionally in processes outside of themselves. Reading aloud and storytelling also play a key role in the development of the imagination, since they inspire children to create other possible worlds (ibid.; Singer 1995, 98 f.).

Children and adolescents who are read to get better grades in school, regardless of their parents' educational background. Parents who read to their children promote their children's long-term cognitive, emotional and social competencies, thereby contributing significantly to their holistic development. The more often parents take time to read aloud, the more their children benefit. Ideally, children young enough to be read to should have someone read aloud to them every day. One finding from data collected for the OECD's 2009 PISA study is that children who are given the opportunity at regular intervals to form thoughts and speak about their experiences learn how to express themselves while also feeling secure and respected. Children who enter into an exchange with their parents at regular intervals also enjoy reading more (OECD 2012b).

More Reading Aloud Is Needed

The way that families read aloud in Germany exhibits multiple shortcomings. For example, approximately one in three children in the relevant age group rarely or never has stories read to them by their parents. Above all, children with parents who have less education are particularly prone to missing out on the experience of being read to. The fact that fathers rarely read to their children is a particular problem in that it can have a negative influence on reading socialization, especially for boys. Children who come from families in which reading aloud rarely or never takes place must therefore come into contact with reading opportunities and reading media in other environments.

Topics and hobbies that parents and children enjoy with each other offer many reading-related opportunities and can therefore be used to promote reading together. Magazines and other publications are particularly useful here, since they offer information on specific subjects and do not overtax inexperienced readers (or prereaders) with lengthy texts.

Both fathers and sons often enjoy technical subjects and computers, including computer and video games. A representative survey in Germany of 686 parents with children 10 years or younger shows that 83 percent of fathers are interested in computers and 64 percent use them often in their free time (Kreibich and Ehmig 2010). Of boys between the ages of 6 and 13, 39 percent are interested in computers and the Internet. In addition, 76 percent of boys in this age group play some sort of video game at least once a week (Medienpädagogischer Forschungsverbund Südwest 2013). Does reading's increasing digitalization offer the chance to use technical topics to motivate fathers to start reading aloud, or to do so more often?

Study on Reading Aloud with Digital Media

A telephone survey of 250 fathers and 250 mothers with children aged two to eight carried out in mid-2012 focused on the increasing digitalization of reading. It also examined the degree to which families with children in this age group know, own and use reading-related digital media, along with the role digital media can play in reading aloud (Stiftung Lesen 2012). Prior to the survey, 23 reading-aloud situations involving parents and their children were observed. The parents were asked to look at a children's book with their child as well as at an equivalent digital app or e-book, and to read aloud from them. In follow-up interviews, the reading-aloud situations were compared, as were the experiences of reading from print and digital media.

In mid-2012, four out of five families (81 percent) in Germany owned at least one smartphone. One family in four with a child between the ages of two and eight owned a computer tablet. Purchasing a tablet is often a financial issue, even if tablets are becoming less expensive over time. In light of that, it is often assumed that families with less formal education, who often have lower household incomes, are less likely to own digital reading devices, especially tablets. Yet the 2012 study revealed little significant difference when it came to owning electronic media: At 74 percent, almost as many low-education families had at least one smartphone as did families with higher levels of education, at 82 percent. In addition, 27 percent of low-education families had a tablet, virtually the same level as high-education families (26 percent). The fact that electronic reading devices are just as prevalent among families with lower levels of education means significant potential exists there for

getting them to read aloud. Findings from a survey carried out in mid-2013 (Stiftung Lesen 2013) show that this potential has increased considerably, since almost twice as many low-education households said they own a tablet or want to acquire one compared to 2012.

Use of Picture Book and Children's Book Apps

Electronic apps that provide access to picture books and children's books are the primary tools allowing children between the ages of two and eight to read or be read to using smartphones and tablets. These apps combine various elements of the traditional picture book with integrated animation, as well as sounds, games and an automated voice that can be activated or deactivated as desired. Half of all parents (53 percent) have already heard of picture book and children's book apps, with that figure rising to 62 percent among tablet owners. That suggests that as tablets become more popular, more people will become familiar with such apps. In German households owning a tablet, 29 percent of parents have already looked more than once at reading-related apps with their child.

What is the appeal of these apps for parents? Overall, 84 percent of parents say they use children's book apps because their children like them, while 75 percent say it is easier to get youngsters excited about reading using these apps than it is using books. This is undoubtedly due to the animated elements, sounds and games that are integrated into the apps, the third most frequent reason cited by parents (73 percent) for their popularity. Of parents who use these apps regularly, 67 percent say they do so because they like the fact that the apps make it possible for their children

to view the stories or listen to them on their own.

Price plays a key role for 57 percent of the parents who make regular use of picture book and children's book apps, since many apps are relatively inexpensive, making them more attractive to lower-income families. A practical reason is also cited by 70 percent, namely that they always have a large selection of books at their disposal.

The findings also show that 16 percent of parents have used a children's book app once, and 14 percent do so regularly, making parents who use such apps a minority among all parents, 86 percent of whom do not yet make use of this possibility at all. Two-thirds (68 percent) of those queried who cannot imagine using such apps to read with their child say they prefer printed books; 59 percent say they are not at all interested in picture book and children's book apps. One-third of those who cannot imagine using these apps say they do not like to read aloud, and that this would not change if they had an app at their disposal. This group represents one-fifth of all parents with children in the read-aloud age group. It shows the limits that digital media face, namely the group of parents who generally resist reading to their children and who presumably cannot be convinced to do so using electronic apps, or who would require considerable persuasion to do so.

Read-Aloud Apps Have Potential for Fathers in Particular

Compared to mothers, fathers are more likely to see advantages in using digital media to read aloud to children. Of the fathers queried, 92 percent say that reading aloud with picture book or children's book apps promotes a child's language development, compared to 83 percent of mothers. This gender

gap persists for other qualities, including perseverance (88 percent vs. 81 percent), the ability to concentrate (86 percent vs. 79 percent) and imagination (91 percent vs. 85 percent). This difference becomes even more pronounced when emotional aspects are considered: 88 percent of fathers, but only 77 percent of mothers, believe that reading aloud using apps is pleasant. In addition, 75 percent of fathers say they are used to reading aloud using an electronic device, something only 59 percent of mothers say. This area offers a first possibility for encouraging fathers to read aloud using picture book and children's book apps.

Fathers who are already familiar with such digital apps use them more often than do mothers. They also prefer them to traditional printed books more than mothers do. But what about fathers who never or rarely read aloud to their children? Of that group, 18 percent say they can imagine using electronic media to view picture books with their children and to read aloud from them in the future. That represents potential that should not be underestimated, since it would be a significant gain if the one-fifth of all fathers who seldom or never read aloud to their children could be convinced to do so using a digital app.

Digital Media as a Complement to Printed Books

When it comes to the subject of reading, in Germany the public debate, and to some extent the academic debate, is characterized by two diametrically opposed positions. On the one hand, there are those who see only advantages in digitalization; others, conversely, are skeptical of digitization, seeing in it a cultural threat that brings nothing but risks and danger. Both sides, however, envision a future in which reading only happens

electronically, if it happens at all, a future in which printed books play no part. If these expectations are justified, however, then those families who already read aloud using digital media should be making little use of printed books in their day-to-day reading-aloud activities. Yet this is not the case: The vast majority of parents make a conscious decision about when they read from a printed book and when they do so using electronic media. For example, parents feel that printed books are better suited to reading in the evening, when putting children to bed, while tablets are more suitable for daytime reading and when the family is away from home.

According to the study, picture book and children's book apps are not replacing reading aloud from printed books, but merely complement and expand existing opportunities for reading aloud.

A third area of potential exists for parents with lower levels of education. When it comes to owning technical devices, they are on an equal footing with parents who have higher levels of education, since smartphones and, above all, tablets can be found just as often in low-education households with children in the read-aloud age group as in the equivalent high-education homes. In other words, parents with less education ideally have the same chance of using digital apps as parents with more education. In addition, parents with less education are more prone to believe that digital apps can enrich the reading-aloud experience (83 percent) than is the case with more educated parents (71 percent). At the same time, however, parents with less education are more skeptical of and unsettled by the fact that more and more read-aloud apps are being produced for smartphones and tablets than are parents with higher levels of education (36 percent vs. 24 percent).

Parents with less education thus often own electronic devices, but are frequently fearful of being overwhelmed by them and have concerns about falling behind or not knowing how to deal with the relevant offerings. Parents, especially those with less education, need help in finding the appropriate products, given the numerous picture book and children's book apps available. Providing them with tips and guidance could help reduce their reluctance to make use of these options for reading aloud. Only then will the various products on offer help parents with less education to read aloud as much as they potentially could.

Summary

- Reading aloud promotes children's early language development and their cognitive, emotional and social competencies.
- Reading aloud has a long-term impact as an educational investment.
- Not enough reading aloud takes place in families in Germany: Approximately one child in three never or only rarely hears and sees a story read aloud. Parents with lower levels of education seldom read aloud. Fathers are much less active in this area than mothers.
- Digital applications hold great potential for encouraging especially these groups to read aloud.
- Picture book and children's book apps complement printed books in a variety of reading-related situations, offering new opportunities for reading aloud and storytelling.
- Digital products can be used to encourage fathers in particular to read aloud.
- Children's book apps have significant potential for increasing reading aloud in families with less education, since those families frequently own digital media.

- Low-education families need guidance in using children's book apps.

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Actors Promoting Early Childhood Literacy

Irena Koźmińska

The Most Important Human Capacities Are Being Developed at Home

Language is the most important tool for thinking, learning and interpersonal communication. Other essential human features comprise empathy and moral values. The most productive time to learn language and thinking skills, to develop empathy and acquire values is early childhood.

The child observes, imitates and adopts the language and behaviors of the most important figures in his or her life – parents – and is also influenced by the home climate and the stimulation she or he receives. The experiences of the early weeks, months and years of life are the most formative and are deeply instilled in a young brain. Therefore, parents are the most powerful architects of a child's potential and thus of his or her future.

Yet many parents today are not aware of their influence on their child's development. They also do not know that a child's emotional and mental development starts from day one. Many of them wait for formal institutions to begin educating their children. They often lack this basic knowledge of their own role.

Were parents in olden times better prepared for their job? Yes. They lived in large,

multigenerational families, tribes or groups. Before becoming parents themselves, they observed how to care for infants and toddlers, and helped raise them. Moreover, in the past, four to five adults cared for one child, while today we consider it appropriate when one caregiver takes care of eight infants, to take Polish nurseries as an example, or about twenty children in a kindergarten and about thirty in a classroom. This adult-child ratio makes it harder not only to fulfill children's needs but also to pass on to them language, culture and values.

The Need for Real Adults
Children are the "products" of millions years of evolution and the young brain needs the same stimulation and developmental environment as in the past: the constant presence of parental figures (children are social creatures), early language exposure, many occasions to observe adults in their life and work activities, and interactions with them. In the past, children were involved in social life. Today, we have created ghettos for children and other age-groups. Youngsters are gathered separately in children's institutions, parents in their work places. Grandparents either still work or are alone in their own apartments, often far away

from their families and grandchildren. Moreover, instead of a real adult to guide them, today's children have to rely on electronic company: TV sets, computers and the Internet, which often attack their brains with harmful and demoralizing content.

It takes a village to raise a child! A caring village. Today's "global village" has the opposite traits; it tries to corrupt children, transform them into compulsive customers and make money off them.

As there are no widespread or accessible "classes" in Poland on how to be a wise parent, capable of instilling resources in a child and protecting him or her against the harmful influences of mass culture, in 1998 we started the ABCXXI-Emotional Health Program, later renamed ABCXXI – All of Poland Reads to Kids Foundation, to raise awareness of and deliver knowledge about children's emotional needs and the importance of early language education and reading.

Supporting Parents

We make parents aware that they should speak and read to their children as soon as the children are born. We explain that reading to children meets youngsters' emotional needs, teaches them better language skills and values, and develops a love for books, thus giving them access to wiser, better and happier lives. Inspiration for our program came from Jim Trelease, the American author of *The Read-Aloud Handbook*.

We also encourage kindergartens and schools to support parents in reading to children. Research conducted by our foundation shows that reading to children 20 minutes a day, every day, in kindergartens and schools increases their vocabulary, under-

standing, knowledge levels, language skills, imagination, motivation to read, humor, drawing and writing abilities, friendliness, willingness to cooperate and other social skills. Daily reading to children immensely supports the educational mission of the school!

We need to remember, however, that parents should be supported, not replaced.

Currently in Poland, over 7,700 reading campaign leaders and coordinators are working with parents and child-oriented institutions in some 3,000 cities and villages to instill the habit of daily reading in children.

The foundation conducts wide-spread media campaigns, offers lectures, workshops and educational materials and organizes e-learning courses for teachers and parents on the Internet University of Wise Education.

The foundation has inspired people in other countries to promote reading to children. A sister foundation, Every Czech Reads to Kids, was established in the Czech Republic in 2006, along with All of Slovakia Reads to Kids in Slovakia, and All of Lithuania Reads to Kids in Lithuania. Recently, a group of activists from Ukraine expressed their willingness to start an All of Ukraine Reads to Kids program there.

Irena Koźmińska

Irena Koźmińska is the founder and president of the ABCXXI - All of Poland Reads to Kids Foundation established in 1998. She has worked as a journalist in Polish radio and in business. From 1994 to 2000, while living in Washington, DC as the wife of the Polish Ambassador to the US, she started her charitable work as the chairperson of two foundations: Breast Cancer Awareness Program for Poland, and Child Awareness Program for Poland. From 2000 to 2010 she was a board member of the International Centre for Missing and Exploited Children. After returning to Poland in 2000, she began raising awarness of the topic of children's emotional health. In 2001 she initiated a national reading-to-children campaign. She is an initiator of educational programs for foundations, as well as a lecturer and co-author of two books: "Guiding the Child into the World of Values" and "Educating through Reading".

Sven Nickel

Family Literacy:
A Short Overview

Family literacy is a new concept that is still little known within educational research. Only recently have scholars gradually trained their sights on the family as a research subject. Unsurprisingly, initial examinations of family literacy programs (e.g., Purcell-Gates 2000; Wasik 2004; 2012) stressed that the level of research is still insufficient. In recent years, however, important insights have been gained through additional reviews and initial meta-studies.

The term "family literacy" is associated with a number of meanings. It was first used by Denny Taylor (1983) to describe the rich and diverse uses of literacy within homes and communities. Today, literacy within the home is referred to as "home literacy" and thus seen as separate from family literacy programs, which address educational activities for families.

Of all the locations where emergent literacy takes place, the family is the most important. The family is "the social group in which the parents' and the children's literacies meet, within which they use literacy, develop their literacy, and interact in literacy activities" (Hannon 1995, 103). "Literacy is a part of the very fabric of family life … [and is] deeply embedded in the social processes of family life" (Taylor 1983, 87). "Children

learn from exploring, observing and taking part in literacy activities at home" (Teale and Sulzby 1986).

Activities such as picture book reading, shared reading, storytelling, language games, children's rhymes and children's songs are oral and, at the same time, make children familiar using an oral form with a "new" language ("knowledge of written registers"). These home literacy activities are the expression of an atmosphere of emotional connection between a child and adult as they engage together playfully with language (cf. Hurrelmann 2004). Over the course of the mid-childhood years, i.e., during primary school, reading's social integration into daily family life takes on a key importance. This integration is characterized by shared reading situations in the family, joint visits to libraries and bookstores, the presence of a shared interest in books, and the time parents spend reading to their children. Empiric findings reveal a close correlation between the literacy environment and school achievement. At the same time, however, literacy activities at home can vary enormously in terms of frequency and quality, with this variability relating to socioeconomic status and ethnic or cultural background. The goal of family literacy programs is to expand home literacy activities.

Historically, programs in the United States that combined parent-child activities and parent training served as the basis for similar developments elsewhere around the world, above all in English-speaking countries. Family-oriented programs can thus be found today in Canada and South Africa as well as in Europe (the UK, Ireland, Malta). In general, these programs have three goals: expanding the frequency and diversity of literacy-related activities in the home environment; improving children's language and literacy competencies; and expanding parents' abilities to provide support. A relatively small number of programs also strives to improve parents' literacy competencies. Family literacy programs are also largely seen as an instrument for expanding social participation. In developed countries, they are therefore mostly found among people of lower socioeconomic status. In Africa and other parts of the world (cf. Desmond and Elfert 2008), family literacy programs are used to support participation in general education, although little evidence-based research exists in those regions.

The concept of family literacy is best understood as an educational strategy, an intergenerational concept that has the potential of playing a key strategic role in the development of literacy ("a bridge to literacy – from generation to generation"). Family literacy programs can serve as an effective gateway to longer-term educational measures and can stimulate other educational processes (Brooks et al. 1996).

Programs are carried out in preschools and schools, as well as in adult education centers, libraries, social centers, churches, synagogues and mosques. They are not subject to a standard definition, but operate within a general framework and can be further developed into a suitable curriculum based on the speci-

fic requirements of each situation. The programs are thus highly varied, in keeping with the notion that "one size does not fit all." In general, they can be grouped into programs that focus on children (and their parents, as intermediaries) and programs that take the entire family into account.

Effectiveness of Family Literacy Programs

In recent years, an increasing focus has been put on ensuring that family literacy programs are effective. Program descriptions and evaluations have become so numerous that it is now hard to assimilate them all. Although the programs emphasize the structural effectiveness of parent-child programs and present a theoretically convincing string of arguments, their empirical robustness leaves much to be desired given the lack of evaluation, or evaluations that are methodologically weak. In recent years three meta-analyses have attempted to systematically examine the various approaches' empiric robustness:

		Number of included intervention studies	Number of children involved (N)	Generalized effect
1	Sénéchal and Young (2008)	16	N = 1,340	Cohen's $d = 0.65$***
2	Manz et al. (2010)	14	N = n.a.	Cohen's $d = 0.33$***
3	van Steensel et al. (2011)	30	N = 4,326	Cohen's $d = 0.18$***
	Mol et al. 2010	geared toward a specific literacy format (dialogic reading) and thus not considered here		

In addition, numerous comprehensive individual studies (Anderson et al. 2004; Brooks et al. 1996; Camilleri 2004; Hannon, Morgen and Nutbrown 2006; Phillips, Hayden and Norris 2006; Saint-Laurent and Giasson 2005) exist that were not included in the meta-studies. They have been included in part in the following reviews:

1.	Brooks et al. (2008) Review (16 intervention studies)
2.	Carpentieri et al. (2011) Review (6 meta-studies)
3.	van Steensel et al. (2012) Review (8 meta-studies)

A first examination of the demonstrated effects of the meta-analyses shows that the data are uniformly positive and predominantly significant. It can therefore be asserted that family literacy programs support the development of childhood literacy to non-negligible degree. A more detailed look at the meta-studies shows that this is true for efforts that expand children's language and literacy competencies and those that help parents become better at providing support. The results make clear that family literacy programs have a greater impact than most educational interventions.

Something else that becomes clear, however, is the significant variation between the individual studies, which have generalized effect sizes of between d = 0.18 and d = 0.65. This is primarily ascribed to differences in the programs and their implementation quality (McElvany and van Steensel 2009), including the participating educators' qualifications.

Family Literacy in the Current Discussion
The following debates currently dominate the current discussion of family literacy:

- Family literacy programs stem from a series of assumptions. These include the assumption that no literacy practices exist at all in some families and that that such families perpetuate low literacy from generation to generation. This transmission effect has now been documented. It still remains necessary, however, to disprove the idea that there are families with no literacy practices. At the same time, home literacy practices vary considerably based on cultural and social factors.
- One aspect that must be viewed critically is that numerous family literacy programs declare as the norm a form of literacy found among the white middle class. Yet some programs do exist that very consciously address specific cultural conditions, such as programs for aboriginal peoples in Canada.
- Low literacy is a family affair. It affects the entire family and influences how family life takes shape. Intervention programs should therefore consider the whole family. Most intervention programs, however, are geared toward helping parents learn practices that will support their children as the children learn in school. These programs are primarily designed to compensate for deficiencies in children's language and reading development. To that extent, despite the best of intentions, they are focused on shortcomings (Auerbach 1995).
- Many programs do not focus on families' home literacy activities, but attempt to transplant in-school structures to the home environment (cf. Auerbach 1989). In contrast, for the relevant programs, Anderson et al. (2010) calls for considering an authentic literacy, one that is oriented toward each family's practical, everyday

life and that values and supports it. Pahl and Kelly (2005) describe family literacy as a "third space", one that serves as "a bridge between home and school."
- The image of literacy in the family is still characterized by the mother as the main caregiver and (also an element of middle-class life) by shared book reading. On the one hand, literacy takes on different forms in different economic and social environments. On the other, it is imperative that the image of family life be expanded to include men/fathers as well as siblings and grandparents (cf. Gregory 2002). Highly differentiated programs also take day-care providers into account as well as children, to the extent that children support their parents if the latter are low literate or have limited language skills.
- Reaching low-literacy parents is seen as particularly difficult. Many parents with low educational levels do not have a positive attitude toward school and literacy. They will hardly be willing to participate in programs that aim to test and identify their literacy level. It is therefore often better to avoid using terms such as "literacy" or "education." In contrast, informal approaches – such as organizing a coffee hour for parents, issuing a personal oral invitation, or holding joint activities for parents and children – are much more promising. Sometimes it also helps to use unconventional locations (playgrounds, shopping centers, etc.) for such activities. Home-based programs, moreover, might be an effective way to approach some parents.
- The idea that family literacy programs break the cycle of poverty, an idea particularly widespread in the United States, is highly problematic. There is no

empiric evidence to support this assertion. Above all, however, it tends to diminish efforts designed to address the causes of social inequalities. Poverty does not result from low literacy, but is the consequence of complex social conditions – which must be redressed.

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Johannes Theiner

The Neglected Role of Families in Modern Education

Education Systems in Competition
In recent decades the OECD has supplied the public with numerous international studies. Education became a headline topic whenever results of a new PISA survey were published. The media discussed tables ranking country results.

Now hardly any debate on school education is possible without referring to PISA results. European states have to compete. One of the dangerous side effects is the factory-like image of schools: They should guarantee educational outcome. Educational institutions have to "produce" skilled young people. They have to shape the un-educated child according to the catalogue of expected abilities that can be best used in the economy.

Some of the correlation effects in the performance of state systems under PISA test conditions have been critically questioned by experts. Nevertheless, numerous simple recommendations for reorganising national school systems are based on comparisons of PISA performance data. Learning outcomes and students' achievements are clearly less worthy if there is no appropriate way to measure them using PISA patterns.

The Role of Parents and Families
One of the most striking results of educational research is not even dealt with seriously: Parents and families are the most influential factor on academic success. A lot of statistical tricks are usually applied to analyse other factors in educational research, but very little is done to capitalise on the potential of parental and familial influence.

Social status and wealth correlate with the level of education. Thus OECD research uses the socioeconomic status of the family to indicate parental influence on academic success. It is not surprising that a clear correlation is proven by every survey and in every country. But no positive action can be derived from this kind of analysis as socioeconomic status is determined by life factors: parents. The real parental role stays hidden as long as no new perspective is taken. And thus no active conclusions are possible to empower parents to perform better.

"Let's Read Them a Story"
For the first time, in 2009 PISA tried to look into the family more closely. The parental role was investigated more concretely in several of the participating countries. The questions were chosen carefully and tried to create a snapshot of the pre-literal phase as

well as the discursive interaction between parents and the adolescent PISA candidate. Habits like story-telling, reading bedtime stories or discussing news at the family table may not show the intellectual status of a family, but they clearly reveal the intensity of personal interaction and the extent of language use. And it is hardly surprising to parents' representatives that parental involvement shows a much bigger correlation with reading skills than does social status.

The Early Years
Professional child care has been identified as a crucial segment of state education. References to James Heckman's famous curve provide good arguments for economic considerations: The earlier a euro is spent on education, the more it pays off. Kindergartens and crèches contribute in important ways to the development of children. But their role is complementary to the role parents play. They cannot replace what parents can do.

"Parents Are the Primary Educators of Their Children"
This sentence is one of the paradigms used by the European Parents' Association. It states the chronological priority of parental influence on a child's learning. Parents trigger early learning, even prenatally. Singing and talking to the unborn child triggers learning.

But the statement also relates to the research showing that parents are the most determining factor for children's overall academic achievements. Parents have the predominant impact on the learning and academic pathway of their child. They can thus be the best educators or block a child's will to learn.

What makes parents such effective educators? How can they overrule all the pro-

fessionalism of teachers? It is important to change one's perspective from a systemic view to the role of the learner. Learning is a very individual process. Motivation is one of the keys to overcoming obstacles. The role of a good educator is not simply "teaching". A good educator provides optimal support according to the learner's need. This may be instruction, explanation, challenge or strategic advice.

The emotional link between educator and learner provides the most stable ground for good learning. In a typical parent-child relation this emotional link can be labelled "love". Most probably this is the main reason for the superior influence of parents. Siblings, grandparents and the whole family environment together shape the home learning environment, which provides the most individualised ground for the learner.

The Potential of Symbols
Reading and writing are cultural techniques that are based on the invention of standardised symbols to shape and process information. It is fascinating to see how some children at the age of two to three years start to invent the concept of writing. Curiosity for the meaning of digits, letters and numbers opens the magic door to the cultural code of notation. Elder siblings can play a fascinating role in triggering interest in this pathway to invention. The fine motoric challenge of reproducing symbols complements the gain of identifying the different signs. It is a long way from knowing digits to reading a single word. Several steps are then required to deconstruct a single sentence, relate several sentences and enjoy a full story…

Paths to the Written World
"One out of five Europeans cannot read

properly." This alarming statement heads the study of a high-level European expert group looking at European literacy in 2012. It refers to a practical use of reading. To transform written text into spoken words is not enough. True literacy requires the intellectual potential to understand and relate sentences. Revealing conclusions and analysing discrepancies in a text are important tasks.

The basic step leading to skilled reading is the mastery of the language. Basic language acquisition takes place at home. The human mind is equipped to map complex language structures. Brain research has proven that even very small babies can identify their mother tongue and distinguish it from other languages. The mechanisms and learning strategies of infants acquiring several languages at an early age may never be fully understood, but the evidence proves there is an enormous capacity available for language acquisition.

The individual way children develop their speech becomes evident when one compares siblings growing up in the same environment. They may show extremely different strategies, speeds and potential, but they clearly mirror the "culture" of dialogue they experience at home. Their vocabulary, their development of grammar and their ability to express abstract things are limited by the richness of the family language.

Storytelling
The path to reading requires two parallel strands. The development of language needs to be connected to books linking visual information to language. Pictures can be seen as the first mediator between language and the hidden secrets of the story.

Reading stories to children activates several motivating processes. The content of a book becomes accessible. The cosiness of sitting on mother's or father's lap supports the imagination triggered by the words. New vocabulary is acquired. New phrases are learned. The pictures in the book assist the child's imagination in learning.

Who tells parents that their role is so unique? Who encourages them to spend time? How can a poorly educated mother or father believe that their involvement in language acquisition is so crucial for literacy and reading?

The educational disadvantages of children from migrant families are frequently discussed. But those parents receive hardly any positive signals helping them become involved in their children's early learning. The importance of being highly competent in the mother tongue has been pointed out by researchers. If a child is fluent in any language, then acquiring the language of the majority, the language of instruction in kindergarten, will be much easier.

Even if there is a lack of books in many migrant languages, the power of words can be unleashed by storytelling. Even without books parents should spend time with their children telling them stories. The language required to introduce the characters of a fairy tale goes far beyond the short "do and don't" commands necessary for daily life. But, in many cases, who cares?

Parents and Parents' Organisations
If parents do not know about their unique potential they will probably not make the effort. If children are not used to listening and understanding stories, combining sentences

and building imaginary stories, they will have a far longer and more challenging path from decoding letters to understanding the content of a chapter.

EPA has therefore been advancing the right of parents to be accepted and supported as the primary educators. This right should be given to every parent whether he or she is well educated or not. Educational systems must make it a priority to support parents in reaching their potential.

A lot of encouraging examples can be found in research and project documentation. Charles Deforges (Exeter University) has showed the incredible impact of parental involvement in school education. He maintains that every normal parent has the capability to get involved in and improve the learning of his or her child. Long-term projects in the USA introduced and coordinated by Joyce Epstein demonstrate the superior performance of children educated in a school community environment. Parents are accepted as playing an important role in these projects. They are introduced as educational partners and their potential and responsibility are thus increased.

Ramon Flecha (University of Catalunya/Barcelona) has developed an incredible European programme called Include-ed. He focused on families from marginalised groups. Education for illiterate parents was one strand. He has shown that even poorly educated parents can be involved in supporting their children's learning.

EPA and its member associations claim to be the voice of all parents. Though represented by well-educated middle-class people, they are open and concerned about every parent

from every background. Parents' representatives will always introduce a new perspective when discussing educational and school issues with teachers, school principals, educational experts or political representatives.

Summary
Development of literacy starts with or even before birth. The acquisition and development of language is the initial part of the learning pathway that is dominated by parents and the family environment.

Parents need to be empowered. In days of professionalisation, they do not trust the uniqueness of their role as trusted and loved "primary educators". Schools and children can benefit from a real partnership between parents and teachers.

Political steps are being demanded to unleash the potential of families to boost the learning potential of children. It is necessary to accept the diversity of family traditions and styles rather than to extend school to home. "Trust" is the magic word in realising partnerships. Parents' associations should thus be recognised as partners to school administrators and political representatives. Parents' representatives are the legitimate voice of active citizens who are making the most important contribution to the learning that affects the whole community.

Considerations should clearly go beyond the employability aspect. Reading opens doors into foreign spheres, leads to the unknown secrets of science and makes available the world of fantasy. It provides access to the opportunity of lifelong learning for professional development as well as for pleasure. Finally, reading skills should never be discussed without consideration of the cultural dimension.

Final Reflections

What is "education"? Talking about "education" requires reflection on a basic question: What are we really talking about? Is it the acquisition of basic life skills? Is it guidance towards the adaption of an individual's behaviour to socially accepted norms? The German language calls it "Erziehung"; English provides terms like "upbringing". These tasks are mainly addressed to parents and families.

Is education the acquisition of cultural techniques required to enter professional development? Is the main purpose of state institutions to provide adolescents with the prerequisites for future jobs? Reading, writing and mathematics are identified as key abilities. Traditionally, this part of education is assigned to professional educators, teachers, and institutions like schools.

In German the term "Ausbildung" is normally used to summarise these aspects. In English and international discussions the word "training" is frequently used to distinguish this kind of targeted development from general education.

Should education also provide higher development of understanding and cognition? Should it guide an individual to philosophical meta-cognition? Is this just a luxury for upper-class children? Is there a need to turn to the development of creative potential through music and art? The German "Bildung" is used here. Parents usually claim to devote a sufficient part of school time to these high-level subjects and goals. Explaining the concept to well-educated non-German speakers, "Bildung" is assigned to the late Enlightenment ideals of Humboldt and his peers.

The focus shifts among various aspects of education. All of them need to be part of a European concept of human education! To underline this seems important especially when reading is discussed. European Commissioner Androulla Vassiliou launched a European Literacy Campaign. All publications delivered through this initiative base their arguments on improved chances in the labour market and set the overall target of a more powerful European economy by raising the level of education of all Europeans and providing more employable graduates.

Parents will always enjoy the first learning steps their baby takes. They will use words of encouragement and praise achievements, even though the natural desire to improve is a powerful driving force inside the learning child. Whenever society controls learning, when schools are established and curricula designed, when assessment and grading are regulated by state systems, then the learner fades from sight. Many proverbs attest to the general acceptance of schools' rules and priorities.

The European Concept of Lifelong Learning

When the European Commission developed the general concept of lifelong learning (LLL), several innovative and fruitful ideas and terms were introduced. Learning outcome was marked as the crucial target. This should be seen as the competences acquired by the learner. The catalogue of eight key competences is still discussed, but it includes rather traditional items like reading and writing and extends to more process-orientated concepts like learning to learn.

The term "competence" is described as an overarching sum of knowledge, skills and

attitudes. This is an encouraging challenge to traditional school-based learning. Traditional assessment is mainly focused on knowledge. Questions are asked to verify that the student is able to reproduce content. This is hardly a system encouraging learners to apply learned content to answer new questions or to reflect critically. Knowledge is not replaced in such a system, but learning outcome is outlined in a more complex way.

Mag. Johannes Theiner

Mag. Johannes Theiner is the father of five grownup children. He was involved as a parents' representative at his children's secondary schools for 18 years. In 2006 he became the chairperson of the regional parents' umbrella association in Vienna, Austria, and was elected president of the European Parents' Association in 2009. As a volunteer he has been involved in many political debates in Austria on school education and school laws. In addition to formal education he has promoted non formal learning opportunities for parents. He has raised his voice at many international meetings on behalf of the unique contribution of parents make their children's learning. Gaining recognition and support for the informal learning provided by parents is one of the main goals.

He is member of the Association for Teacher Education in Europe and represents EPA in the European Commission's Thematic Working Group on Early School Leaving and at the platform EUCIS-LLL.

Louise Chadwick

Better Start with Bookstart: Evidence for the Ongoing Benefits of Early Literacy

Bookstart started in 1992 piloted in Birmingham with 300 children. Now in 2013, Bookstart reaches out to over two million children and their families every year. Bookstart has inspired nearly 30 similar book-gifting programmes around the world with the simple idea that an early introduction to stories, books and rhymes will offer every child the best possible start in life.

Bookstart aims to promote and encourage the sharing of books in the home. By working with key professionals who are trusted by parents and carers, we are able to ensure that high quality messages are given about the benefits of sharing books, appropriate to the family and their needs.

Many people recognise the pleasure that snuggling up and sharing a book together brings for both parents and children. However, for others this is something that they have not experienced in their own childhood and would find difficult to start with their own children. This theoretical framework sets out the evidence about the importance of sharing books, stories and rhymes for all children from birth and highlights the ongoing benefits that this can bring.

Benefits from Bookstart

1. Promotes Secure Attachment
Reading to and sharing books with babies helps emotional bonding. Sharing stories, books and rhymes promotes strong and loving relationships and secure attachment.

Evidence:
Many studies around the theory of attachment, including John Bowlby's theory, suggest that human beings have a universal need to form close emotional bonds with those who care for them. These bonds are key to developing the building blocks for positive emotional health and wellbeing in later life.

Parent-child attachment is related to the frequency of reading at home, according to a meta-analysis carried out by Bus et al (1995a). An experiment focusing on Dutch children aged three years old found that children who were read to frequently were more likely to be securely attached than children who were read to infrequently. Children who were read to frequently appeared to be more focused on the book (Bus et al 1995b).

One of the key outcomes of Bookstart is that it increases the quality time that children and parents/carers spend together. This was established in a Social Return on Investment study (Just Economics 2010) carried out for the programme.

2. Supports Development of Confidence and Self-esteem
Sharing books with children helps to develop a child's social skills and confidence, both of which are essential for emotional health and wellbeing.

Evidence:
Exposure to stories helps to enrich the imagination and provide knowledge of a range of experiences that a child can draw on to give them confidence in their daily encounters with the world. Research suggests that stories provide children with a framework within which "behaviours can be interpreted" and given meaning (Wells 2009).

3. Aids Cognitive Development
Linguistic, social, emotional and cognitive development are complementary processes that ultimately work together to shape a child's literacy growth. Sharing stories helps a child to develop across all the domains.

Evidence:
Sylva et al carried out a review of the Effective Provision of Pre-School Education (EPPE) Project, a major European longitudinal study of a national sample of 3,000 children between three and seven years old, which considered a wide range of information regarding their development. The study concluded: "For all children, the quality of the home learning environment is more important for intellectual and social development than parental occupation, education or income. What parents do is more important than who parents are" (2003,1; see also OECD 2002).

While the study did not look at Bookstart, we believe a programme such as Bookstart can successfully encourage the adoption of a learning-friendly environment in the home, helping children to develop and maintain strong language, literacy and numeracy skills.

4. Supports the Development of Speech and Language
Encouraging parents and carers to share stories, books and rhymes can radically improve a child's language and communication skills. Each Bookstart pack contains two books to help begin their reading journey as well as information on how speech and language can be incorporated into daily life.

Evidence:
A poll by speech therapy charity I CAN in 2004 found 96% of nursery staff had at least one child in their class with "communication difficulties" and 92% blamed lack of conversation between adults and children for this. Encouraging parents to share books, stories and rhymes with their children can ensure that children grow up in a communication-rich environment.

Bookstart's pedagogy has been reinforced by studies that identify the value of joint storybook reading between parent and child (Baker et al 1997; Justice and Ezell 2000; Moore and Wade 2000; Weinberger 1996). Bookstart puts into practice the insight made by these studies that storybook reading in the home enhances children's basic literacy skills.

5. Aids Socio-emotional Development, Good Mental Health and Wellbeing

Sharing books together in the home can provide a valuable platform for discussions, debate, play and fun activities. Stories and talking about books helps develop empathy and encourages children to recognise and talk about their feelings.

Evidence:
Research by Professor Yvonne Kelly et al (2011) suggests that if five-year-old children who are read to less than daily were instead read to on a daily basis there would be a substantial reduction in the proportion of five-year-olds with socio-emotional difficulties. Kelly recognises Bookstart as an important initiative that gets books into homes and encourages parents and carers to share books, stories and rhymes from birth.

6. Helps to Lay Foundations of Good Literacy Skills and Prepares the Way for School

To be ready for school, children need to have a good vocabulary, understand how books work and have the curiosity, imagination and eagerness to know about the world around them. Sharing books, stories and rhymes helps develop these skills, making the transition to school more successful.

Evidence:
The EPPE study found that several aspects of the home learning environment had a significant impact on children's attainment at school entry. These include: reading with the child, teaching songs and nursery rhymes, painting and drawing, playing with letters and numbers, visiting the library, and teaching the alphabet and numbers (Sylva et al 2003). Research has shown that those children who are better at detecting rhymes tend to be more successful at learning to read, a relationship that is independent of children's class backgrounds, intelligence and levels of memory ability (Bradley and Bryant 1983; MacLean et al 1987; Bradley 1988; Ellis and Large 1987).

Longitudinal studies have demonstrated that Bookstart has led to improvements in language and literacy performance when children who have received Bookstart begin school at the age of four (Wade and Moore 1993; Moore and Wade 1998). A follow up study in 2000 found that the children who had received Bookstart packs performed better in literacy and numeracy tests. By tracking children's performance up to their Key Stage 1 assessment at age seven, these studies show how Bookstart children maintained their advantage throughout their first five years of primary education (Moore and Wade 2000).

7. Supports the Development of Fine Motor Skills, Listening and Concentration

Sharing books from birth supports the development of physical coordination through page turning, lifting flaps and pointing at images. By regularly listening to a parent or carer share stories, a child will develop skills in listening and concentration.

Evidence:
Dwyer and Neuman (2008) suggest that babies like to physically explore books as objects or toys, using and developing their sensorimotor skills by sucking, patting, stroking or scratching books. Handling skills can be a challenge for young babies, but theses skills develop rapidly throughout a baby's first year.

Rule and Stewart (2002) note that while there is little quantitative research exploring interventions to promote fine motor skills, the evidence that is available suggests a correlation between fine motor ability in young children and early literacy performance, and indicates that interdigital dexterity is a strong predictor of reading achievement.

8. Breaking Cycles of Low Achievement and Poverty

Encouraging parents to start sharing books, stories and rhymes with their baby is the first step towards breaking intergeneration cycles of low achievement and poverty.

Evidence:
Jo Blanden (University of Surrey) analysed data from the British Cohort Study of children born in 1970, and found a strong link between parents' interest in educational attainment and the likelihood that their children will escape poverty; those who were poor at the age of 30 were significantly less likely to have been read to by their parents when surveyed at the age of 5.

A study carried out by the National Centre for Research in Children's Literature found that Bookstart families have better book-sharing skills, read more with babies and young children, are more likely to join the library, are more confident when reading to children and are more aware how reading can help speech and language development (National Centre for Research in Children's Literature 2001).

One of the guiding principles of the Bookstart programme is to increase the confidence of every parent and get them actively involved in their child's learning. All guidance material produced recognises the role of parents and carers as a child's first and most enduring educators. An independent Randomised Control Trial evaluation of Bookstart+ found that the programme has a significant positive effect on parent's attitudes to reading and books (O'Hare and Connolly 2010).

Opportunities When Gifting Bookstart
1. Offers Opportunity for Discussion about Developing Routines

Gifting a Bookstart pack offers an opportunity to reinforce information about routines with feeding, bathing and sleeping. For example, reading at bedtime can settle a child, or sharing a book on the bus or in the car can help pass the time.

Evidence:
For many families sharing a book or story at night is an ideal way to settle a child. Bookstart's Social Return on Investment in 2010 found that many parents reported that reading with their child had a calming effect. Having routines and a rhythm to the day helps children to gain confidence and independence. If a parent seems to be struggling with routines the Bookstart pack offers an ideal opportunity to strike up a conversation about introducing regular events into their baby's day.

2. Supports Family Access to Other Services

Gifting the pack provides an opportunity to talk to parents or carers about appropriate services available within a Children's Centre or the local library, to borrow books and take part in early-years activities. This helps with social cohesion and discourages social isolation.

Evidence:
Research by Wade and Moore (1996) shows that children and parents involved with

Bookstart visited the library more frequently than those who had not received Bookstart. In a survey of reading habits, Roehampton University found an increase in the number of KS1 children borrowing books from the library in 2005: 45% of the sample of children reported that they "very often or often" borrow books in 2005, compared to 32% in 1996. The authors of the study suggest the possible influence of Bookstart in encouraging use of the library.

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Louise Chadwick

Louise Chadwick is the director of Programmes at Booktrust, UK. She is responsible for Bookstart as well as the programmes aimed at children in school throughout England, Wales and Northern Ireland. She also previously developed a programme called Bookbite to inspire people over 60 to read and write more. Before working for Booktrust, she worked as a teacher in post-compulsory education, taking courses and education out to nontraditional learners. She has also developed a number of projects supported by the European Social Fund and aimed at breaking down barriers to educational participation.

María Beatriz Medina

Key Components of the Work of Volunteers in Early Literacy and Reading Projects

Baby's Corner is a project carried out by Banco del Libro (Book Bank), a non-profit institution devoted to the promotion of reading and children's literature in Venezuela. It aims to encourage reading-related activities among infants. It is based on the transformative possibilities that occur when children encounter emotional, playful and creatively cultural products that are linked to language. These possibilities are especially effective when combined with sustained reading-related efforts – and become the optimal path to human social development.

It should be emphasized that children aged zero to three are extremely sensitive and vulnerable to influences from the outside world. Early childhood is when basic emotional, cognitive and social patterns are formed, patterns that will serve as the basis for later attitudes, skills and, ultimately, actions.

The baby first bonds using language through its relationship to its immediate environment. As stated by Professor Evelyn Torres, the first reading of the world, which happens through bodily sensations associated with the word "love" and with friendship, precedes a reading of the written word. Training, here, is there-

fore critical and must include the parents, because they are the ones who facilitate between the child and the world most directly.

In terms of volunteers and the work they carry out, many elements must be kept in mind, since early childhood is such a crucial time for human development and since it poses many challenges. Certain basic factors should be considered when volunteers are being selected: awareness of the issue, motivation and ability to relate to children and parents.

The legal framework for this project has been very important, since in Venezuela it provides for a social work program of choice for college students. This freedom of choice ensures participants are truly volunteers. We seek to promote positive attitudes toward books. It is therefore important that the volunteers value the importance of reading and early childhood education.

Training also involves several key factors that must be stressed: the family, the community and education in general.

During training this project helps volunteers become aware that they are social actors and

agents of change. It must be stressed that the volunteers are agents of transformation and serve without pay to benefit the community by offering their time and knowledge.

Volunteers in the Baby's Corner project therefore:
- Strengthen the reading promotion work we carry out through the project
- Complement professional contributions to early literacy
- Speak and dialogue about activities and planning

Upon review, we have seen that the strengths of this intervention include:
- Promotion of early literacy needs and reader development
- Development of an area of social and educational participation
- Possibilities for obtaining additional knowledge
- An increase in social value and reward

The weaknesses identified include a lack of continuity that can slow individual literacy processes.

On balance, however, the results have been positive. Specifically, Baby's Corner volunteers:
- Acquire a methodology for working with early childhood reading
- Acquire knowledge of children's literature and related quality criteria
- Recognize the value of the word as a primary affective bond
- Internalize the principle that reading is a right
- Gain awareness of the importance of early childhood education and the situation in many countries

- Gain awareness of the importance of the role of the family

Using Baby's Corner tools, volunteers:
- Engage in a support process and monitoring sessions that involve storytelling, singing lullabies and reading children's books
- Participate actively in family formation
- Become promoters and agents of change and social transformation

The volunteers play a fundamental role in the development of projects like this:
- They make clear the importance of the interpersonal in achieving human development and the importance of relating to the world through the word.
- They help establish a meaningful relationship between the child and its environment while also helping the family.
- They facilitate the social development of the children, as well as both the families involved and their own.
- They articulate research and action, theory and practice, engaging with current realities.
- They understand the need for a multidisciplinary approach and help promote it.
- They acquire the appropriate substantive experience and tools that will enable replication of the project in other areas.
- They discover their potential to contribute to the training of early childhood readers and the formation of relevant attitudes among parents and other adults close to the child.

María Beatriz Medina

María Beatriz Medina holds a bachelor of arts from the Universidad Central de Venezuela and has done postgraduate studies at the University of Zurich. She has been the editor of several Venezuelan publications, such as the children's magazine *Parapara*, the literary culture magazine of the newspaper *El Nacional*, and the national cultural magazine. Since 1979 she has developed research and reading programs relating to children's literature at Banco del libro, an NGO dedicated to the promotion of reading and books for children and young adults. She has also served on the Evaluation Committee of Children's Books, helping select the best children's books. She is the executive director of Banco del Libro in Venezuela and teaches in the Integrated Training Program Promoters Book Bank Reading, Children's Literature Master of the Autonomous University of Barcelona (Spain and the Book Bank) and the Master of School Libraries of the Organization of Iberoamerican States. She is member of the reading expert group of that organization.

Abigail Moss

Literacy Champions: A Community Volunteering Programme

Research shows that early intervention is vital to improve the life chances of children in areas and situations of disadvantage. We also know that many less advantaged families feel more comfortable receiving advice about supporting their children's literacy from a friend or peer rather than a professional, and equally that many people are keen to support families in their local community with children's literacy.

Literacy Champions uses the unique power of volunteers to shift the attitudes and behaviours of families in their communities, giving them the confidence and knowledge to support their children's literacy development.

During 2012, over 450 volunteers helped reach more than 1,600 families across the British capital, providing them with focused and dedicated time within their often busy lives to engage with their child's communication and literacy.

Volunteers were active, engaged members of their own communities who were empowered to improve the lives of their friends, neighbours and peers. Nearly half (46%) had not volunteered previously. The project illustrated how the right volunteers can work alongside statutory provision and actively make a difference in their communities.

Volunteers finished their opportunity happy that it had made a difference to the families they supported and with increased skills and confidence. 88% were satisfied with their volunteering opportunity. Nearly three quarters (73%) told us they would volunteer again and 84% would recommend the opportunity to a friend.

"I gained some self-confidence back after a long time of not having much left – also a renewed belief that I can make a difference. I want to follow a slightly altered career path as a result."
Literacy Champion volunteer, Croydon

At the end of the project's first year, professionals and parents taking part reported a significant increase in children's basic literacy skills and behaviours. Whilst the project was designed to monitor families' shifts in attitudes, behaviours and engagement, with the support of five settings we were able to measure increases in attainment against the Early Years Foundation Stage framework (EYFS) for children participating in each centre or school. A practitioner review found that, two months after involvement in the project, 46% of participating children had improved their communication development in terms of speaking and listening from emergent levels to levels expected of their age. 52% improved their engagement with books and stories from emergent to expected levels, with 16% improving from expected levels to exceeding expectations for their age.
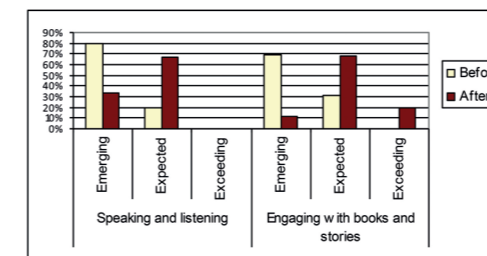

Fig. 1 – Child EYFS Assessment, before and after Project

While it is difficult to attribute positive change to any intervention alone without the necessary funding and evaluation methodology, 69% of project staff felt these gains to be directly related to the families' involvement with the London Literacy Champions project.

Families also reported significant changes in their children's literacy development and how they as parents could support it:

- 84% of parents felt that the project would have a positive long-term impact on their child's reading and communication skills.
- 83% of parents reported an increase in their confidence in sharing books with their child.
- 80% reported an increase in awareness of the importance of talking with their child about something they are interested in.

Through the project, families were introduced to the support available to them within their community by being invited to attend a family literacy activity at their local library or children's centre. Over half the families who attended these sessions reported that it was unlikely that they would have done so without the support of the volunteer. 100% of these families felt more confident about attending activities after the project, with 94% intending to go again.

"It has made a lot of difference because I now have a better understanding of how to support my child at home – I can be like his teacher! It has made a huge difference because I have learnt new skills. It has helped my child to understand new things."
Parent, Croydon

Project Learning
Reaching family targets was a challenge for all areas. Taking the programme forward,

we will consider the capacity of local authority partners in light of external pressures when setting targets. We will also look for strong links with early-years settings and libraries when building delivery partnerships and ensure project aims and deliverables are communicated early on.

Delivery timescales should be revised to account for complex set up, with consideration made for school holiday periods. Allowances should be made for low family retention rates, which can be mitigated by spreading the referral requirement across as many settings within an area as possible. Literacy Champion volunteers and families should also work one-to-one within groups in order to provide further peer support.

Programme Sustainability in London

Of the 12 local authorities involved in London Literacy Champions, 11 have expressed a wish to run the programme again, seven particularly strongly.

Many authorities report having built or developed stronger relationships with settings, volunteers and families in their communities as part of their involvement with the programme, alongside a concern that much of the progress made could be lost if they are unable to find funding to continue. Continued funding would allow them to sustain the momentum of the programme and to build on the achievements of the last project year.

"This is an incredibly worthwhile project that has allowed volunteers to access our children's centres who have not previously had any involvement with our services."
Brent

Programme Sustainability beyond London

Literacy Champions is now operating across children's centres and housing estates and in partnership with community organisations in Birmingham and Middlesbrough, in addition to 11 housing estates in London.

National Literacy Trust also has government funding to extend the support to 120 children's centres and 3,600 families, and will align the programme with the development of a new multi-agency identification framework based on updated Home Learning Environment indicators. We would also like to include adult literacy and English language support and extend the peer volunteering aspect to young people.

Abigail Moss

Abigail Moss is deputy director at the independent UK charity, the National Literacy Trust. Since 2010 she has led and developed the organisation's programmes that address low literacy in the poorest communities, all of which are based on extensive research and surveys.

The organizations programmes include a joint venture with the Premier League that uses the power of football to inspire young readers; a business volunteering programme helping teenagers improve their language and presentation skills; a book-gifting programme that has helped over 300,000 children develop as readers; and a community volunteering scheme helping parents improve their children's home learning environment. She initiated the charity's Oxfordshire Reading Campaign, which is set to significantly improve the reading levels of targeted Key Stage 1 pupils. She also developed a programme funded by the Department for Education that will engage families in literacy support in children's centres.

She also contributed to the new curriculum for schools in England and is a member of the expert advisory panel for the Welsh government's National Literacy Programme. She previously led cultural learning programmes at Arts Council England, worked in theatre education, and taught English and coordinated literacy provision in a London secondary school.

R. Malatesha Joshi

Education and Training of Professional Early Literacy Educators

Introduction

Literacy skills encompassing reading and writing skills are basic for survival, and lack of development of these literacy skills will have a serious and negative impact on the individual and society. According to the report of Partnership for Reading (2003), more than 3,000 students drop out of high school every school day in the United States; the main contributing factor provided is poor reading and writing skills. Speaking at a House of Representatives hearing on measuring success, Lyon (2001) called reading failure a national public health problem because of the approximately 15% of students who drop out of high school, over 75% report difficulties in reading and writing. Further, at least half of the adolescents with criminal records or histories of substance abuse reportedly have reading problems. Yet, in the United States, where the data are available, and in other parts of the world, where the data are not readily available, the number of individuals with poor reading and writing skills is overwhelming. In this paper, we will outline some of the basic reasons for the lack of development of literary skills and demonstrate that early identification and good teacher pre-

paration are the keys to solving the enigma of illiteracy.

In the United States, students' achievements in different subject areas have been evaluated by the Institute of Educational Sciences periodically since 1969. The report, generally referred to as the National Report Card, provides the results of performance of fourth and eighth graders in subjects like reading, writing and mathematics. The performance is evaluated at three levels: basic, proficient and advanced. Basic denotes partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at each grade. Proficient represents solid academic performance; students reaching this level have demonstrated competency over challenging subject matter. Advanced represents superior performance. According to the most recent report from 2011 (National Report Card), about one-third of the students do not have the mastery of basic skills in reading, which means that one in three students cannot function at the basic level. Illustrating the discrepancy between white and minority students, a National Center for Education Statistics report notes that more than one-third of all students and about two-thirds of

minority students cannot read with clarity and fluency.

Reasons for Literacy Problems

Although various reasons have been postulated for the literacy problems, Vellutino, Scanlon and Jaccard (2003) mentioned environment and instruction as the two basic reasons for literacy problems. Environmental reasons include poor oral language development, the number of books available at home, parental attitudes and parental models. In their seminal study, Hart and Risley (1995) recorded the receptive and expressive vocabulary of children aged three years from different socioeconomic classes for eight months. They found that children from welfare families were exposed to 10 million words during those eight months and by the end of eight months, these children had an expressive vocabulary of about 500 words; children from middle class families were exposed to 20 million words and had a vocabulary of 700 words; however, children from professional families were exposed to a total of 30 million words and had a total vocabulary of 1,100 words by the age of 3 years and 8 months. Vocabulary development among these three groups was not only quantitatively different but qualitatively as well; professional families used more reasoning words while welfare families used more words that were short and also more command words such as "don't do this" and "stop." As can be seen, children from poor families have poorer vocabulary than children from upper socioeconomic classes by approximately four years of age. According to Moats (2001), linguistically "poor" first graders knew 5,000 words; linguistically "rich" knew 20,000 words. Additionally, parents reading to children at a very young age also has a significant impact on literacy de-

velopment. In a large-scale study, Chiu and McBride-Chang (2006) analyzed the reading performance of fifth graders from 43 countries and found that in every country, girls outperformed boys and there was a positive relationship between family socioeconomic status, schoolmates' family socioeconomic status, number of books at home and enjoyment of reading.

Seymour, Aro and Erskine (2003) examined word reading and decoding (by means of non-word reading) in 13 different orthographies in Europe. The results showed that while it might take about one year of formal instruction in transparent orthographies like Finnish and Spanish to master the decoding skills, it may take two years for children learning to read in an opaque orthography like English.

Thus, various environmental factors such as oral language development, family socioeconomic status, number of books available at home and parents reading to children can influence literacy development. Additionally, instructional factors such as lack of a suitable literacy environment in schools, ineffective instructional methods and the lack of knowledge teachers have about English language and structure can also impact negatively literacy development of children. Various research studies have shown that reading and writing difficulties are due to inefficient and inaccurate language processing (Moats and Foorman 2003; Rayner, Foorman, Perfetti, Pesetsky, and Seidenberg 2001), and when children are identified early and instructed on the basis of the language structure of literacy, the results have been consistently positive (Blachman, Tangel, Ball, Black and McGraw 1999; Brown and Felton 1990; Foorman, Francis, Fletcher, Schatschneider

and Mehta 1998). According to Strag (1972), when the diagnosis of reading problems was made in the first two grades of school, nearly 82% of the students could be brought up to their normal classroom work, while only 46% of poor readers identified in the third grade were remediated and only 10% to 15% of those observed in grades 5 to 7 could be helped when the diagnosis of reading problems was made at those grades. In addition to the success rates of remediation, the amount of time spent in remediating literacy problems can also vary. For instance, if the problems are identified early, for example in kindergarten or grade 1, an additional 20 minutes of remedial instruction per day may be sufficient to remediate the reading problems. If the problem is not identified early and remediation has to start in upper elementary grades, like grades 3 and 4, remedial instruction may have to be extended to approximately two hours a day for four days a week.

Role of Professional Early Literacy Educators in Solving Literacy Problems

Even though various factors such as poor language development and socioeconomic status may be a contributing factor for poor literacy development, studies also have shown that with early identification and scientifically based systematic reading instruction, it is possible to help children with such a poor background to develop literacy skills commensurate with children who develop normal literacy skills (Blachman et al. 1999; Foorman et al. 1998). The National Research Council also concluded that "quality classroom instruction in kindergarten and the primary grades is the single best weapon against reading failure" (Snow, Burns and Griffin 1998, 343). In addition, recent national reports on effective reading

instruction have stressed the importance of teachers' knowledge in breaking the code (McCardle and Chhabra 2004; National Reading Panel 2000). However, a recent report by the National Council on Teacher Quality (Walsh, Glaser and Wilcox 2006) concluded that many schools of education may not be teaching their preservice teachers the basic knowledge required to teach literacy skills. One of the first studies to show that many classroom teachers do not have the adequate knowledge of linguistic concepts necessary to teach literacy skills was by Moats (1994), who administered a survey to 89 reading teachers, special education teachers and speech-language pathologists. Responses to the survey indicated an inadequate understanding of language concepts and persistent weaknesses related to the concepts of the very skills needed for direct, language-focused reading instruction, which led Moats to conclude that regarding spelling rules and conventions, "Ignorance was the norm" (p. 93). A later study (Moats and Lyon 1996) again revealed that teachers have "insufficiently developed concepts about language and pervasive conceptual weaknesses in the very skills that are needed for direct, systematic, language-focused reading instruction, such as the ability to count phonemes and to identify phonic relationships" (p. 79). Since the initial publication of Moats (1994), several studies have been published addressing the issue of teacher knowledge not only in the United States (Bos, Mather, Dickson, Podhajski and Chard 2001; Brady, Gillis, Smith, Lavalette, Liss-Bronstein, Lowe, et al. 2009; Cunningham, Perry, Stanovich and Stanovich 2004; Joshi, Binks, Hougen, Dean, Graham and Smith 2009a; Mather, Bos and Babur 2001; McCutchen, Green, Abbott and Sanders 2009; McCutchen, Abbott, Green, Beretvas, Cox, Potter et al. 2002; Piasta,

Connor McDonald, Fishman and Morrison 2009; Spear-Swerling and Brucker 2003 and 2004) but also in the United Kingdom and Australia (Coltheart and Prior 2007; Fielding-Barnsley and Purdie 2005).

Participants in the Moats (1994) study were educational professionals attending a workshop while studies by Bos et al. (2001), Mather et al. (2001) and Brady et al. (2009) included in-service and pre-service teachers. However, the findings were similar in the sense that the teachers did not have sufficient background in the linguistic knowledge necessary for teaching systematic instruction in early grade levels. However, as studies by McCutchen et al. (2002 and 2009) showed, when these in-service teachers were given a workshop relating to linguistic concepts during summer months, the knowledge of teachers increased; additionally, the performance of students who were taught by these teachers trained in linguistic concepts also increased. These studies clearly show that irrespective of the background of the students, well-informed teachers can improve literacy skills of students. In an interesting study, Cunningham et al. (2004) measured teachers' perception of their knowledge as well as their actual knowledge and found that teachers who rated themselves as knowing more performed less well on the knowledge test while those teachers who rated themselves as knowing less actually performed better on the test.

We have further explored teacher knowledge in order to find out the reasons for their lack of knowledge. To begin with, since most of the studies had administered the non-standardized survey, first we standardized the instrument using exploratory and confirmatory factor analyses and established

the validity and reliability of the instrument (Binks-Cantrell, Joshi and Washburn 2012). Using this standardized instrument, we next tried to replicate the previous findings of Moats (1994), Mather et al. (2001) and McCutchen et al. (2009) about the pre-service and in-service teacher knowledge of linguistic concepts as it relates to literacy instruction. Our results also corroborated the previous findings that both in-service and pre-service teachers did not have sufficient knowledge to deliver literacy instruction to help children who have difficulty mastering literacy skills (Joshi, Binks, Hougen, Dahlgren, Dean and Smith 2009b; Washburn, Joshi and Binks-Cantrell 2011a and 2011b). We further explored the reasons for the lack of knowledge among pre-service and in-service teachers and hypothesized that perhaps university professors of literacy education courses themselves may not have the knowledge to provide instruction to pre-service teachers, and the textbooks used in literacy education courses may not include content related to linguistic concepts necessary for teaching literacy skills. Termed the "Peter Effect" based on the biblical story of the Apostle Peter, who when asked for money by a beggar replied that he could not give what he himself did not have (Acts 3:5), we found that even the university professors lacked the necessary knowledge needed for teaching systematic literacy skills in early grade levels (Binks-Cantrell, Washburn, Joshi and Hougan 2012).

Naturally, teacher educators cannot give what they themselves do not possess. An additional reason for the poor knowledge of teachers was explored by examining the textbooks used in university literacy education classes. Such analyses found that many textbooks did not cover all the aspects ne-

cessary for systematic instruction either; the textbooks that we examined, most widely used in university classes, lacked the detailed information on how to provide good literacy instruction based on scientific research and sometimes provided wrong information (Joshi, Binks, Graham, Dean, Smith and Boulware-Gooden 2009c). These results point to the need for a better preparation of university faculty members involved in the preparation of pre-service literacy educators as well as better preparation of textbooks.

Conclusions

It has been shown that literacy development is a necessity to function well in our society and that literacy development in kindergarten and grade 1 can have a lasting impact on performance in future grades in all subject areas. Even though various factors, such as poor socioeconomic background and orthography, may be related to poor development of literacy skills, systematic explicit instruction can overcome these problems and children can still develop good literacy skills. However, several studies have shown that classroom teachers have not been provided with the skills needed by their university faculty members for them to provide systematic instruction. Additionally, textbooks used in university literacy education classes do not provide enough information to ensure systematic explicit literacy instruction in early grade levels. In order to improve the individual and society at large, professionals have to be prepared to deliver sound systematic literacy instruction based on scientific research.

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Pamela Oberhuemer

Early Literacy Learning: Some Education/Training Issues in Europe

The professional education and training of educators, pedagogues and teachers working with young children in the years prior to statutory schooling varies considerably across Europe, both at the formal level and in terms of content. In the SEEPRO study (Oberhuemer, Schreyer and Neuman 2010), six distinct professional profiles were found to exist in the 27 European Union countries. These include the *Early Childhood Professional* (e.g. in Finland, Sweden, Slovenia and the Baltic countries) with a training background in pedagogical work with children from birth up to compulsory school age; the *Pre-primary and Primary School Professional* (e.g. in France, Luxembourg, Italy), trained for work with three- to eleven-year-olds *within* the education system; the *Social Pedagogy Professional* (e.g. in Denmark, Germany), a broad-based training for work *outside* the education system both with young children, but also with older children or adults; and the *Health/Care Professional*, mainly children's nurses or social care workers in settings for the under-threes. Just these four examples indicate how varied the focus on *early* literacy learning is likely to be.

However, whatever the training profile, the providers of both initial preparation and continuing professional development are faced with increasing expectations regarding the language and literacy related competencies of early years educators. Many countries have introduced official early childhood curricular frameworks over the past decade or so.

In **Sweden**, for example, the 1998 preschool curriculum for one- to five-year-olds was revised in 2010. The new version includes more specified goals in four areas of learning: language/literacy, mathematics, science, and technology. The areas chosen for stronger goal specification relate clearly to the assessment priorities in international comparisons of educational achievement (e.g. the OECD-PISA studies). This shift is seen by experts as contributing towards elements of "schoolification" (Pramling Samuelsson and Sheridan 2010) or "readying for school" (Moss 2013) in early childhood settings, which in Sweden have traditionally had strong roots in a holistic, socio-pedagogical approach.

In **Germany**, it has been suggested that the traditional language enrichment activities in kindergartens were not carried out systematically enough or in an appropriately purposeful way (Fried 2009). Language and literacy were consequently foregrounded in the early childhood curricula introduced in all 16 federal states (Länder) and in the 2004 Common Framework for Early Education adopted by both the Youth Ministers and Education Ministers. Particular emphasis has been placed on the support of children from families with a background of migration. In a number of *Länder* it is now a requirement for children to participate in a language screening assessment prior to school entry. However, there are considerable regional variations in the types of assessment used, and also in the kinds of language support measures implemented. Some start when the children are two years old, whereas others do not begin until the last year in kindergarten. In Bavaria, for example, no language screening test is required, but since the Autumn of 2005, the language competence of children whose parents were both born outside Germany is assessed by practitioners with the help of a prescribed observation instrument; and since 2008, the language competence of *all* children is assessed towards the end of the year preceding the final year in kindergarten. Beyond this, an extensive network of language and literacy coaches was launched in 2008 with considerable government funding support (see the contribution by Inge Schreyer).

The revised Early Years Foundation Stage in **England** explicitly "promotes teaching and learning to ensure children's 'school readiness'" (Department for Education 2012, 2). Additionally, and controversially, the English government has prescribed certain reading methods (phonics) to be taught to children in nursery and reception classes and tested at the end of the first grade at age six. This "phonics check" includes children having to decode decontextualised "nonsense" words, i.e. words with no meaning – an approach sharply criticised by major professional organisations. Also, the early learning goals set for reading and writing at the end of the Reception Year (when children are mostly five years old) are both more specific and demanding than in most countries, e.g. "Children read and understand simple sentences. They use phonic knowledge to decode regular words and read them aloud accurately. They also read some common irregular words... Children use their phonic knowledge to write words in ways which match their spoken sounds. They write simple sentences which can be read by themselves and others. Some words are spelt correctly and others are phonetically plausible" (Department for Education 2013, 27).

A number of questions arise for those working with these very young children. What about the children whose home language is not English? What about the summer-born children, who have spent less time in early childhood settings and are thus less experienced in literacy knowledge and practices compared with their older peers? What about children from "disadvantaged" backgrounds, where parents may have little time to spend on literacy activities, or may not be able to afford books, or may not value books?

Early childhood educators need to be aware of social justice issues in literacy learning, to realise fully and with in-depth knowledge that some children come into early childhood settings with funds of literacy-related knowledge which others have not experienced. Thematic issues and challenges for initial and continuing professional development include the following: How to stimulate both individual literacy learning pathways *and* shared literacy experiences in

the group; how to engage with a wide *variety* of approaches to literacy; how to support meaning-making and literacy activities in child-initiated play; how to involve parents effectively in literacy learning practices.

Overall, we can conclude that policy concepts of language and literacy learning vary considerably, ranging from enrichment and enhancement approaches to discrete skills training. These policy frameworks are likely to influence the knowledge-and-application emphasis in professionalisation strategies. What will the emphasis be during the coming years: readying for school or readying for life?

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She has acted as a consultant to the OECD (on its *Startin Strong* reviews) and UNESCO (on early childhood indicators, among other topics) and has been a guest speaker in many countries, most recently Australia, the United Kingdom, South Korea and Turkey. She is a co-editor of *Early Years – An International Research Journal*. Throughout her career, she has published widely in national and international books and journals. Her book, co-authored with Dr. Michaela Ulich, on *Working with Young Children in Europe* was published in German, English and Japanese.

Inge Schreyer

Project 'Sprachberatung': Language Coaching for Pedagogical Staff Working in Children's Services in Bavaria

The project was funded by the Bavarian State Ministry of Labor and Social Welfare, Family Affairs and Women and conducted by the State Institute of Early Childhood Research in Munich. It started in 2008 with a three-week qualification program training of 221 people to coach pedagogical staff in children's services. Their task was to support teams in kindergartens, day nurseries and out-of-school services in Bavaria as they integrated literacy into the everyday life of the center; they also suggested innovative approaches.

All in all, nearly 2,000 children's centers – around 30% of them were centers operated by public providers and 40% by church-affiliated providers – participated for three years. Each center had a language coach who spent approximately 115 hours working with the center. She (nearly all the coaches were female) did not work directly with the children. Among other things, the coach provided the staff with information about integrating literacy into daily routines, cooperating with other services, using language screening measures, reflecting on their own use of language, and about the Bavarian Early Childhood Education Curriculum.

An evaluation took place to assess the outcomes of the project. Questionnaires were prepared for the staff at the centers, for parents and for the language coaches. Questionnaires were filled out by the directors of the participating centers and by a maximum of four members of the pedagogical staff at each center. Since the evaluation in many cases started after the coaching began, there were two different approaches: Participants at the centers were questioned before *and* after the coaching, or they were only questioned *after* completing the coaching. Afterwards, up to five parents per center also filled out a form. The language coaches were asked to complete a questionnaire after each coaching session. All in all, nearly 12,000 questionnaires were filled out.

Coaching Well Received

Besides structural information about the center, questions for the pedagogical staff focused on:
- Their overall perception of the area "language and literacy" at the center
- Their own perceived competence and skills regarding language and literacy
- The implementation of the Bavarian Early Childhood Education Curriculum

- Reflections about their own use of language
- The perceived changes attributed to the coaching and how they impacted the center, the team, themselves (the person providing answers), the children and the cooperation with parents
- Their overall assessment of the coaching and the coach

The evaluation revealed that most of the centers greatly appreciated the coaching: On average, both the coaches and the staff rated the coaching "good" and more than three-quarters of the centers would recommend participation in the project to another center.

Important findings included the following: After having completed the program, the staff reported the presence of more play materials and books for the children. The staff were also more able to attract the children's attention to language topics by installing literacy centers, by reorganizing the books in the group room or by buying new ones; they were also better able to emphasize literacy in general and to integrate children whose first language was not German into the community of the center. Furthermore, the staff felt they knew better how to detect specific aspects of the children's language and, following the coaching, felt more comfortable in talking to the parents concerning the language skills or language problems of their children. Especially non-German speaking parents profited from the coaching, since one of the project's key goals was the improvement of cooperation with the parents. The staff also paid more attention to their own behavior and use of language. Regarding the team, perceptions after completing the coaching were twofold: Around

half of the staff reported improvements in the team climate, whereas the other half did not. Only very few aspects concerning the children were found that were attributed to the coaching. It will probably take more time for measures to be implemented that have an impact on the children.

The evaluation also made clear that, if teamcoaching is to be successful, the coach needs to possess a number of qualities. Alongside knowledge about literacy and language in general, these include the appropriate advisory skills. A short-term workshop for imparting them would not be sufficient. Especially in the field of children's services it helps a great deal if the person who does the coaching has an outgoing personality, is flexible and is able to work under pressure. Furthermore, the coaching needs to be adapted to the particular children's center and its specific features and to the existing knowledge of the staff. In an effective coaching program, the staff should be willing to reflect on their own behavior and be open to changes and innovative measures. The evaluation also showed that follow-up dates after completing the coaching would have guaranteed better sustainability of the program's contents.

The project's final report is available (in German only) at: http://www.ifp.bayern.de/imperia/md/content/stmas/ifp/evalutionsbericht_projektsprachberatung.pdf.

Susanne Brandt

Prepare for Life – With Stories! Dialog, Imagination and Motion in Germany's Public Libraries

Dr. Inge Schreyer

Dr. Inge Schreyer studied psychology in Munich, Germany, and has been a senior researcher at the State Institute of Early Childhood Research (IFP) in Munich since 2000. As part of a national quality initiative from 2000 to 2006, she coordinated a project on provider quality and co-developed instruments for service providers for self-assessing and externally evaluating management quality in early childhood education and care. From 2006 to 2009 she collaborated with Pamela Oberhuemer on the project SEEPRO – Professionals in Early Childhood Education and Care Systems in Europe.
As coordinator of the project Sprachberatung – Language Coaching for Pedagogical Staff in Children's Services in Bavaria (2009-2012), her main research focus was the evaluation of the coaching process. Since 2011 she has been lead researcher for the project AQUA – Work Conditions and Job Satisfaction of Pedagogical Staff in the German System of Early Child Care.

Storytelling – why do we think and talk about it again and again? We do it because of the importance of storytelling for young children in a world of varied media, including digital media. Storytelling supplies words, sensations and impressions. It gets you to try to understand the adventure of your own life. You get an idea of poetry.

Young children's primary experiences, such as the sensory-based interaction with objects, stories and people, are the basis of all developing and learning processes during the first years of their lives. Today, learning processes involving digital media are doubtlessly part of that. But without direct experiences of the body and soul, without a feeling of poetry and imagination, digital media cannot be a meaningful component for gaining and developing knowledge. The mind needs emotions; information requires intuition. And vice versa. One won't work without the other.

Things are not always that well-balanced in daily life, however. There has been a tangible loss of real experiences – experiences that address all of the senses and provide opportunities to test oneself and to meet others socially, emotionally and creatively.

This is where children's libraries become essential. When children have fewer chances in their daily lives to experience things directly with their own bodies, with movement, with people, with nature and different materials, then open meeting places such as libraries can compensate for such deficits.

One of the essential responsibilities libraries have today is to make transparent the connections between digital processes, human actions and physical and social reality. Yet how may this be accomplished in practice? Here are four aspects that play a major part in children's libraries:
• Promoting dialog and motion
• Storytelling, also as an example of creating one's own stories
• Transforming information into knowledge
• Stimulating children's imagination

These four aspects are very important for the different forms of narrating and reading to children, especially those forms that make use of all the senses and of movement. Here are three examples of such forms.

1. Storytelling with Kamishibai

Not everyone is familiar with the lively methods of telling stories used in **Kamishibai narrative theater**. In the Japanese language, "Kamishibai" means "paper drama." It was a popular form of street storytelling from the late 1920s until the early 1950s. The Kamishibai man traveled from village to village by bicycle. His main occupation was selling candy. To entice children to buy candy, he entertained them with stories.

Today, children's libraries in the German state of Schleswig-Holstein apply this method deliberately to link narrating and reading to children more directly to the children's imagination and creativity. In comparison to pictures on monitors, Kamishibai appears rather old-fashioned, but it has been found to be a wonderful complement to digital media. Younger children in particular experience the "reading of pictures" with the Kamishibai method to match their needs in terms of pace, comprehensible movement, sensory experience and personal empathy.

In addition, they learn a number of things about their own abilities, such as:
• I can actively contribute to what is happening.
• I can envision my very own images.
• I can use those images to describe a course of action and to discover the power of imagination.
• I can invent and tell my own stories.

Storytelling with Kamishibai is more than just entertainment or an opportunity to learn about the art of pictures or literature. The four aspects of children's libraries mentioned above are essential for developing the competencies related to learning processes. Storytelling with Kamishibai – which child-ren can connect with directly – is a method of promoting these aspects using fantasy, dialogue, movement and joy.

It cannot be stressed enough that the core responsibility of children's libraries is promoting use of the imagination, something that results from encounters with stories. Imagination encompasses more than just creativity; it puts thinking and experiencing on the same level as creating. It lets mind and soul roam freely beyond the daily reality of life.

This helps imagination to remain an essential part of an individual's life regardless of their level of education or social or cultural background. It goes hand in hand with respecting other lifestyles, other people and other cultures, by consciously including feelings of belonging as well as those of opposition. Finally, imagination is important for the other types of storytelling that take place in public libraries.

2. Stories in Motion

Stories in Motion is an interdisciplinary cooperative project that develops new paths in the culture of storytelling. At first glance the connection is not self-evident. But a two-year project with libraries in the German state of Lower Saxony has produced exciting, interdisciplinary results that are leading to a change in the traditional culture of reading-aloud and storytelling. Books and motion have more in common than many participants in the project first realized. After some instructional and practical workshops, the librarians understood not only the theory of why this is, but also tried it out in a variety of ways and developed a multitude of creative ideas and applications. The project has thus put a lot into motion – literally – and will continue to do so. Motion in libraries is not unthinkable, but makes reading aloud and storytelling an enriching experience for children. Pleasure and enjoyment from "moving access" to the world of stories is not only available to children through such approaches, but also to the storytellers, who become enthusiastic and bring their own stories into motion.

3. EGON Project: Stories about Nature

EGON is the German abbreviation for "discover mysterious places in nature." And that is exactly what this project is about. The mysterious aspect of nature and landscapes is what evokes children's interest and imagination – and who could talk about this aspect better than people with experience of and stories about nature? Children who perceive their natural environment around the library as exciting and mysterious will usually develop a positive relationship to it – and therefore also the willingness to handle it with care.

The library project involves repeatedly inviting children to go outdoors. Children walk through the woods, smell, touch and taste their environment. They move and climb trees, and while doing all that, they learn things that can be supplemented wonderfully with information from books and the internet. That's how information can be transformed into knowledge – making storytelling a very important step on that path.

To summarize, young children need:
• Imagination as an experience of openness
• Social experiences as part of direct encounters and interactions with other people
• A sensory and emotional relationship to their environment so they not only understand it, but learn to sense and love it

Everything I have presented is about stories, so I will end with a story.

Just Enough (A Traditional Jewish Tale)

Long ago there was a tailor who made clothes for the people of his village. After many years of working, the tailor made himself a warm wool coat. Oh, how the tailor loved his new coat! He wore it everywhere. He wore it in town. He wore it on trips to the countryside. He wore it in winter and in spring. After many years, however, the coat began to wear out. The sleeves and bottom hem frayed. The tailor looked at his coat. It was worn, but it still had just enough good material left to make something else. So one night, he took out his needle and made himself a short jacket. Oh, how the tailor loved his jacket! He wore it everywhere. He wore it in town. He wore it on trips to the countryside. He wore it in winter and in spring. But after many years, the jacket began to wear out. The shoulder tore. The tailor looked at the jacket and saw there was just enough good material left to make something else. So one night, he took out his needle and made himself a vest. Oh, how the tailor loved his vest! He wore it everywhere. He wore it in town. He wore it on trips to the countryside. He wore it in winter and in spring. But after many years, the vest began to wear out. The tailor looked at the vest and saw there was just enough good material left to make something else. So one night, he took out his needle and made himself a cap. Oh, how the tailor loved his cap! He wore it everywhere. He wore it in town. He wore it on trips to the countryside. He wore it in winter and in spring. But after many years, the cap began to wear out. The tailor looked at the cap and saw there was just enough good material left to make something else. So one night, he took out his

needle and made himself a little button. Oh, how the tailor loved his little button! He sewed in on his new coat and wore his button everywhere! He wore it in town. He wore it on trips to the countryside. He wore it in winter and in spring. But after many years, the tailor looked down and realized that he had lost his little button. At first, the tailor felt sad – until he realized that he had just enough material left over to make ... this story! And he gave this story to someone he knew. And that person gave it to someone else, and now I have given it to you.

Can you imagine the pictures in this story? Can you imagine the motion in it? Can you imagine the feelings of the tailor? Can you feel the message, without explanation? Can you find variations of the story so you can tell your own version to children?

Now – just do it!

Links (in German)

Stories in Motion:
http://www.opus-bayern.de/bib-info/volltexte/2011/975/

Stories about Nature:
http://www.opus-bayern.de/bib-info/frontdoor.php?source_opus=525

Storytelling with Kamishibai:
http://www.opus-bayern.de/bib-info/volltexte/2012/1168/

Susanne Brandt

Susanne Brandt, born in 1964, studied library sciences in Hamburg and Stuttgart and cultural science in Hagen, Germany. She has also acquired special qualifications in rhythmics and literacy in the context of social and educational work for children. She has led various departments and public libraries in Cuxhaven and Westoverledingen and been a member of different commissions and project groups dedicated to the topics of children's libraries and literacy. She has been a lecturer at the Büchereizentrale Schleswig-Holstein in Flensburg since 2011. She is also author of numerous books and publications on reading and storytelling.

Dai Yingyuan

Promoting Early Literacy through Reading Programs: The Case of Shenzhen Children's Library

The role of the library in Early Literacy Education (ELE) is a broad topic, and this article mainly focuses on how libraries in China help promote ELE through reading programs, specifically taking Shenzhen Children's Library (SCL) as an example.

This article is divided into three parts. It starts with a general overview on ELE in China, then discusses the importance of children's libraries for ELE in China. Finally, by observing early reading programs at SCL, it examines how a children's library can promote early literacy through reading programs.

1. Early Literacy in China

There are tens of millions of children under the age of six in China. According to statistics from the Ministry of Education, there are more than 29 million children enrolled in kindergarten, aged three to six years old. Children under three are not included. It is therefore not difficult to image how large the population of children from birth to six in China is.

Education, including ELE, has always been seen as very valuable in China, even in anci-

ent times. It is a tradition. But the concept of "early reading" and "early literacy" was different then from how we understand it nowadays. Early reading was somewhat misunderstood until recent decades.

1.1. Early Literacy Equals Acquisition of Chinese Characters

In ancient times there were private schools for children aged from three or four years old to ten years or older. The traditional "early reading" activities were usually learning Chinese characters and reciting ancient Chinese classic works. Young children who were able to recite numerous ancient Chinese classic works were considered talents. With such a tradition, early literacy simply meant the acquisition of Chinese characters, and the traditional understanding of ELE was equivalent to teaching literacy, especially teaching how to read and write Chinese characters. Today there are still many parents and kindergartens focusing on the number of Chinese characters children learn, while they often ignore children's interest in reading and the development of other aspects of early literacy. For example, it is not surprising to find children being asked to recognize cards of Chinese characters or reci-

te ancient Chinese poems as performance at some family gatherings or parties.

1.2. Early Literacy Does Not Equal Acquisition of Chinese Characters

In recent decades, however, the understanding of early literacy has been somewhat rectified. Along with China's opening to the outside world beginning in the late 1970s, the different attitudes western countries have toward early education have become known in China. At the same time, along with new psychological and educational findings, people have started to realize that an interest in reading is fundamental to early literacy.
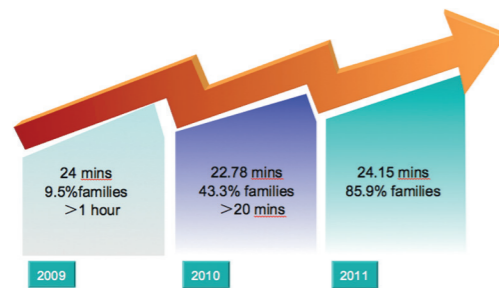

Fig. 1 – Time Families of Children 0 to 8 Years Spend on Parent-Child Reading Every Day (Source: National Reading Survey)

According to the data from the National Reading Surveys of 2009, 2010 and 2011 (Figure 1), the amount of time families of children zero to eight years spent on parent-child reading everyday increased gradually year by year. In 2009, families with children under eight years old spent 24 minutes on average on parent-child reading, and only 9.5% of families spent more than one hour on it. The 2011 survey indicated 85.9% of families were in the habit of parent-child reading, and the average reading time was 24.15 minutes. Yet the statistics are far from satisfying.

Findings from this survey also show the annual average number of books read by children under eight years old is less than 10, much lower than in many other countries. In addition, most children's first contact with books happens between the ages of one and three, a late start considering some countries suggest children have contact from birth. The cause of this phenomenon is partly due to the misunderstanding some parents have that newborn babies lack the perception and cognitive ability to "read" or understand the content of the voice, images and other reading materials (Ding 2011).

2. The Importance of Children's Libraries in Early Literacy in China

With such an unsatisfactory situation, library intervention is needed in the area of early literacy and to correct parents' misunderstandings. On the other hand, early reading is actually an inherent function of the public library. As a crucial place for reading, public libraries in China have in recent years put an increasing emphasis on early reading and early literacy. The Library Society of China designated the year of April 23, 2009 to April 23, 2010 as "National Children's Reading Year" and initiated numerous reading events. Local public libraries and children's libraries have also launched their own reading activities and research programs for children (Ding 2011).

2.1. The Children's Library and ELE: An Important Complement to Family and School Education

In the case of ELE, the children's library is a crucial supplement to school education and family education, especially due to the unique resources children's libraries have that schools and families do not (Figure 2). First, they have a large amount of informa-

tion and resources for children and their families. There are books, newspapers, magazines, audio and electronic-reading materials and toys – a selection suitable for children, parents and teachers. Second, children's libraries have the advantage of human resources. There are professionally trained librarians who are able to provide accurate reading guidance and help develop children's reading interest and good reading habits, which parents and school teachers may not be as good at. Third, there are activity resources. Children's libraries usually have comfortable spaces and the appropriate equipment; they also have the broader social networks and the planning and management ability to offer various information-related services, including reading activities for children that are both fun and that help children to read (Li 2007). Libraries also have an advantage in funding. In China, major public libraries are usually funded by the government.

These resources give children's libraries a great advantage in terms of early literacy promotion. Amongst the various services children's libraries provide, reading activities are one of the most popular and effective. As seen in the 2009-2010 National Reading Survey, 65.5% of the Chinese people expect local authorities to provide reading activities. Especially in the case of early literacy promotion, reading activity is seen as efficient. Highly disciplined classroom teaching for literacy is not appropriate for children six years or younger. Reading activities that are fun, rather than independent reading or literacy instruction given directly by adults, is more suitable for young children.
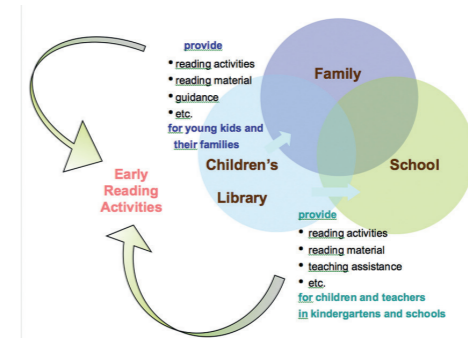

Fig. 2 – The Children's Library Is an Important Complement to Family and School Education

2.2. Two Types of Libraries for Children in China

Presently there are two types of libraries for children in China. One is the children's library, the other is the children's reading area in public libraries or schools. A children's library is an independent library in which children are the top priority. It is usually a detached building with several reading areas and activity spaces. Nowadays there is at least one such independent children's library in each big city in China, including Beijing, Shanghai and Guangzhou. A children's reading area is only an area within a public library that is for people of all ages, or it is located in a school or kindergarten. It is usually smaller in size and less functional than a children's library.

SCL is an independent library. It is one of the largest children's libraries in China and famous for its various reading programs for children. The following will discuss the reading programs at SCL.

3. Promoting Early Literacy with Reading Programs: SCL as an Example
3.1. Shenzhen Children's Library (SCL)

SCL is in the city of Shenzhen, which has approximately 10 million residents and is located in South China bordering on Hong

Kong. Shenzhen was also the country's first special economic zone. Its children's library is the only literature and information center for children, parents and educators in Shenzhen. After being rebuilt and expanded in 2008, SCL is now 22,000 square meters large and has over one million books. It organizes 1,100 reading activities per year on average. There are ten reading areas, two activity areas (a reading practice area and the Plane Tree Story House), one multifunctional lecture hall and one exhibition hall. The nine reading areas are the Reading Area for Preschool Children, the Happy Reading 365 Reading Area, the Classics Book Reading Area, the Hall of Chinese Classics, the Hall of International Education Resources (reference room for teachers), the Pictorial World (cartoons and traditional Chinese illustrated story books), the e-Reading Area, the Reading Area for Visually Impaired, the Newspaper and Periodical Reading Area and the Lending Area. Of

those, the Reading Area for Preschool and the Happy Reading 365 Reading Area mainly focus on early reading.

The objectives of SCL include providing information services to children, parents, practitioners and researchers; providing supportive reading programs to ensure all-round educational development; providing services relating to research on children and education; and cultural preservation. Providing early reading programs and promoting early literacy are therefore integral parts of SCL's objectives.

SCL is specialized in promoting reading through diverse reading activities. There are 12 reading projects and many other reading activities, as shown in Figure 3. Among these, the Happy Reading 365 and "Bud-Caring" early reading projects are the two activities dedicated specifically to early reading.

12 Reading Projects	Other Reading Activities
Carried out all year round and composed of several relevant reading activities	Carried out periodically
1. Happy Reading 365 Project 2. "Bud-Caring" Early Reading Project 3. "Bougainvillea" Classics Reading Project 4. "Red Peony" Chinese Classic Culture Inheritance Project 5. "Golden Rose" Love Passing on Project (for teachers) 6. "Carnation" Non-Differentiated Reading Project for Disadvantaged Children 7. "Dandelion" Immigration Children Reading Project 8. "Ivy" Information Resource Co-Development and Sharing Project (for school libraries and communities) 9. "Sunflower" Childhood Archiving Project 10. Membership Credit Project 11. e-Reading Station Electronic Resource Platform (for schools and communities) 12. Reading Practice Project (calligraphy, chess, handicrafts, embroidery, baking, etc.)	• Nursery Rhyme Festival (every March) • Funky Language • Birthday Party in SCL • Night in the Library (once a year on World Book and Copyright Day) • Read a Really Good Book This Summer (every summer break) • Book Donation & Exchange Fair (twice a month) • 4:30 PM "School" (every school day after school time) • Chinese Calligraphy Competition (once a year) • SCL Theater Night (on Sundays) • SCL Exhibition • SCL Lecture

Fig. 3 – Reading Programs at SCL

3.2. The "Bud-Caring" Early Reading Project

The "Bud-Caring" Early Reading Project is designed for children under six and their families. Based in the Reading Area for Preschool Children, it also provides reading activities and actively cooperates with kindergartens (Figure 4).

The "Bud-Caring" Early Reading Project For Children 0 to 6 and Their Families

• Reading Area for Preschool Children
• Sister Red Story Time
• Smart Baby Handicraft
• Booklist for Parent-Child Reading
• Cartoon Fun
• Cooperation with Kindergartens (Group Reading)

Fig. 4 – Elements of the "Bud-Caring" Early Reading Project

As a reading program for preschool children, both the interior design of the reading area and the planning of reading activities take into consideration the physiological and psychological needs of children at this age. The reading area has caves with shelves containing many picture books, a big artificial banyan tree surrounded by soft benches for children to sit and read, and a castle.

Twice a month on weekends there is a storytelling program in the reading area called Sister Red Story Time. It is for children aged three to six and their families. Since 2009, it has been held more than 80 times and more than 16,000 people have attended. At Sister Red Story Time, librarians not only tell stories and share classic picture books, but also "play" with children during a variety of extension activities which include small, fun experiments, games and cosplay ("role-

playing"), all of which relate to the story and help children experience the joy of reading.

Smart Baby Handicraft is another project program. About 20 families participate each time, and librarians teach parents and children to use readily available salvaged materials to make handicrafts. After the activity, the librarian will recommend relevant books as a reference. It helps to develop children's manipulative ability and improve child-parent relationships, and also attracts children who are interested in handicrafts to come to the library and start to read.

For many children, their kindergarten and kindergarten teacher will play an important role in ELE. Ensuring a close connection to kindergartens is therefore also a part of the "Bud-Caring" Project. SCL provides group reading services to kindergartens. Librarians first guide kindergarten children around the library and explain the library rules and the function of every part of the library, after which kindergarten students and teachers can join a storytelling session or read in the library. Family and parents are another important aspect of early literacy education. Librarians also give a recommended booklist for parent-child reading to parents and provide reading guidance.

The "Bud-Caring" Project can be seen as promoting ELE mainly in the library with librarians as the main driving force, while another project, the Happy Reading 365 Parent-Child Reading Project, uses volunteers and expands the scope of educators, readers and methods of promotion.

3.3. The Happy Reading 365 Parent-Child Reading Project

The Happy Reading 365 project is for child-

ren between four and twelve years of age, and creating early readers is the primary objective. It aims to enhance social awareness and participation in children's early reading. The project is composed of recommended booklists (in the form of a calendar), storytelling programs such as Storytelling Happy Hour, storytellers' workshops, training courses for early reading promoters, a microblog and a Happy Reading website (Figure 5).

**The Happy Reading 365 Parent-Child Reading Project
Begun in 2011 for Children 4 to 12 and Their Families**

- Happy Reading 365 Reading Area and The Plane Tree Story House
- Every day: recommended booklist and calendar
- Every Sunday: Storytelling Happy Hour
- The third Saturday of every month: Storyteller's Workshop
- Once a year: training courses for early reading promoters
- Microblog: http://t.sina.com.cn/szclib
- Website: www.i-read.net.cn

Fig. 5 – Elements of the Happy Reading 365 Parent-Child Reading Project

The Happy Reading 365 Recommended Book List is the foundation of the project. Every year the Reading Guidance Group of SCL selects 365 (or 364) children's books and books for parents and then turns them into a Happy Reading 365 Calendar, encouraging readers to read at least one book every day the whole year round. Most of the books in the list are picture books, and the rest are easy readers, books with text and parental guidance books. Books can also be classified by subject, corresponding to special dates in

the calendar. Examples include the Chinese New Year series, Mum's Love series (for Mother's Day) and other series dedicated to Life Education and Emotion Management.

Based on this book list, the Happy Reading 365 Project launches various reading activities. Every Sunday afternoon, for example, volunteers, parents and children gather at the Plane Tree Story House at SCL. Volunteers tell stories and read to others from the books in the Happy Reading 365 book list. People also enjoy the Storytelling Happy Hour together. And on the third Saturday of every month there is a free Storyteller's Workshop for parents, teachers, librarians and any volunteers who would like to promote children's reading habits during early childhood. The workshop covers topics such as how to choose a book for children, how to improve children's reading ability, the theory and practices of parent-child reading, interacting skills in parent-child reading, and what is required of storytelling volunteers. There is also a training course for early reading promoters every year. Finally, promoting early reading should not be separated from the surrounding network, so the Happy Reading 365 Project has a microblog to interact with readers online. It also has a Happy Reading website to make book recommendations, release information about upcoming reading activities at SCL and provide news about children's reading and education activities. It also allows parents and teachers to share and discuss their experiences of reading and parenting.

Using all of the above, this project tries to increase awareness among parents, teachers and society at large of the importance of children's reading. It also tries to get them involved in children's reading activities and

even train them as qualified early reading promoters and practitioners.

3.4. Other ELE-Relative Reading Programs

As shown in Figure 3, there are many other reading programs besides the "Bud-Caring" and Happy Reading 365 projects. Many of them, though not designed specifically for early literacy, complement these two early reading projects and also effectively support early literacy. For example, the Membership Credit Project is a basic program having a tremendous impact on all SCL readers including early readers. The core idea is "not managing readers but guiding readers." With this project, when a reader has overdue books they won't be fined, but points will be deducted from their reader's membership card instead. At a children's library, it may not be appropriate to fine readers because most of them don't have financial resources. Conversely, a reader can get credit in five ways including borrowing books, attending reading activities, doing volunteer services in SCL, donating (books, stationery, etc.) and winning awards. Each SCL reader originally gets 100 points in their membership card, which means four books can be borrowed for one month. Once the points increase to 300, six books can be borrowed each time, but when the points have been reduced to zero, books can no longer be borrowed. Through this project, readers who frequently go to the library and borrow books can be effectively rewarded and encouraged. On the other hand, readers who do not have the good habit of returning books on time can be "educated" by doing volunteer jobs for the library or attending reading activities in order to regain the deducted points. This way, they actually get more involved in the library and develop a sense of commit-

ment to it. Therefore, this project also helps to attract more readers – and more early readers – and their families and helps supply new volunteers to the Happy Reading 365 Project and other programs. Other reading programs such as the Nursery Rhyme Festival, Birthday Party in SCL and e-Reading Station Electronic Resource Platform are also helpful in promoting early literacy. Each is different, and detailed descriptions are omitted here for the sake of brevity.

With so many reading programs complementing each other at SCL, the "Bud-Caring" Project and the Happy Reading 365 Project are hardly alone in the area of early literacy promotion.

4. Conclusion: Promoting Early Literacy through Reading Programs – The SCL Experience

From the descriptions above, it is not difficult to see that the reading programs at SCL are not isolated, but relate to and complement each other. In other words, SCL has set up a system of reading promotion in which early literacy promotion plays a key part. Considering the observations above and other practice of the past four years since SCL was rebuilt and expanded, there are some thoughts and experiences worth sharing here.

First of all, it's important to expand the scope of early reading and early literacy and set up an internal system of early literacy promotion within the library. On the one hand, everything should be "readable" and fun to "read." Literacy is not acquired only by reading, but also by listening, talking, writing, even touching and playing with popup books or bathtub books, and the daily practice of early literacy promotion

can greatly help to expand the scope of "reading" and reading-related activities. For instance, the Smart Baby Handicraft Program of the "Bud-Caring" Project and the Nursery Rhyme Festival are not reading activities, but are about reading. And, more importantly, they increase interest in reading and literacy. In addition, a reading program should start by stimulating an interest in reading and promoting early literacy step by step. Stimulating interest is a starting point; activities should also make readers feel good and encourage them in order to make sure they continue reading. Step 2 is to "read" in all dimensions and give the experience and knowledge of literacy to readers. Step 3 is to interact with readers after "reading" in various ways, in order to get feedback about the program and reinforce readers' interest in and comprehension of what they have just experienced. More details about these three steps of early reading programs can be found in Figure 6.
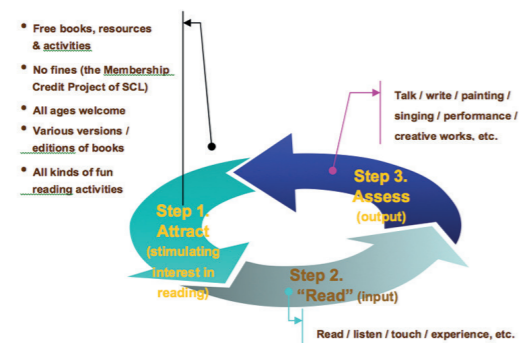

Fig. 6 – SCL's Three Steps to Early Reading Programs

Next, all of the community's resources should be integrated and new media and multimedia should be utilized (Figure 7). Although large public children's libraries like SCL are fully funded by the government in China, the funds are always limited, especially

when numerous reading programs for different ages have been launched. It is therefore important to get other participants involved such as kindergartens, schools, community groups, businesses, NGOs, etc. It is important not only for fundraising and gaining access to other resources such as volunteers and books, but it also helps others understand the library and helps develop more readers. For instance, the storytellers of the Storytelling Happy Hour of the Happy Reading 365 Project are all volunteers who are parents, teachers, etc. Similarly, SCL's "Ivy" Information Resource Co-Development and Sharing Project is a program for school libraries and communities to share information and resources with SCL. If a kindergarten or school takes part in this project, then its students can borrow books from SCL but return them to their school and vice versa. Geographically it expands the scope of library services. The utilization of new media and multimedia is another good way to expand the scope of library services to every community and family in the city. For example, SCL has launched the e-Reading Station Electronic Resource Platform. It is a touch-screen computer with access to all the electronic resources SCL has, so schools and communities that have
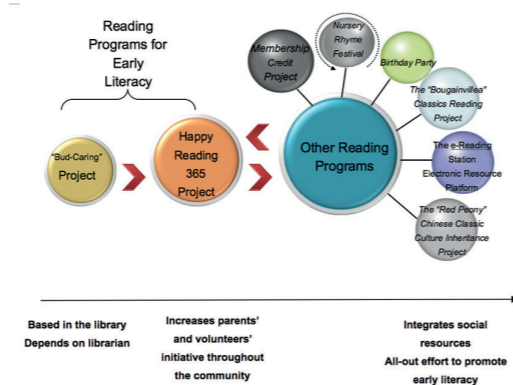

Fig. 7 – Integration of Social Resources

installed it can read all these resources easily. And the use of a microblog and website to interact with readers also helps promote the Happy Reading 365 Project.

To conclude, SCL's experiences in early reading promotion show the importance of stimulating an interest in reading and conducting early reading programs systematically while using all available resources and media.

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Helga Hofmann

Early Literacy in the
Public Libraries of South Tyrol

Introduction

The importance of reading from a very early age has been researched and documented by the American brain researcher Maryanne Wolf from Tufts University. She specializes in research on the reading brain and in her book *Proust and the Squid: The Story and Science of the Reading Brain*[1] she points out that human beings were never born to read. She maintains that the human brain is programmed to learn to speak, but not to read. "Reading is a human invention that reflects how the brain rearranges itself to learn something new," she claims. Learning to read is a challenging process that children have to go through; this challenge should not be underestimated. Apart from what teachers and professionals at preschools can provide to assist children, the promotion of reading should also play an important role in family life and be an institutional part of the program at all public libraries.

Geographical Oddities

South Tyrol is one of the most northern provinces of Italy; it borders Austria and Switzerland and has a population of about 500,000 people. South Tyrol used to be part of the Tyrol (in Austria) but was allotted to Italy after World War I. Most people are bilingual German/Italian and there is a small linguistic minority group in the Dolomites that speaks Ladin, an old Romance language. Linguistically, 70% of the population in South Tyrol have German as their native language, 26% have Italian and 4% speak Ladin. The importance of language as part of culture and, thus, as a means to defend a minority's interests has always been an important feature in local cultural politics. The public libraries have therefore played an important role in cultural life ever since South Tyrol became part of Italy.

Public Libraries as a Place
of Early Literacy Education

The public libraries in South Tyrol are competent partners for schools and offer leisure and cultural activities in urban and rural areas. In order to offer and to maintain a certain level of quality, the libraries (public and school libraries) are assisted by the team of experts at the Center for Libraries and Reading, run by the Department of Culture of the Provincial Government in Bozen/Bolzano. The center provides the libraries with expertise in the promotion of reading, offers assistance, designs large-scale projects and organizes training courses.

In what way can librarians and professionals help small children to discover their love of books and – as Wolf puts it – help the children's brains adapt to the challenge of learning to read at a very early stage?

To give more profound assistance to those families who need it the most so they can develop a love of stories and books, in 2007 the Provincial Government of South Tyrol decided to implement a Bookstart program, which has been running ever since. A group of experts was nominated and started designing the program with a German and an Italian version of the two Bookstart book packs, including the most important information in Ladin. The project is of a manageable size. Per year there are about 5,200 newborn babies. With the help of pediatricians, maternity units in hospitals and child-care centers it has been possible to provide 22,500 families in South Tyrol with two Bookstart packs for each newborn baby in the last five years.

The Bookstart program in more detail: The first book pack is handed over to the families when the baby is six months old. The families apply for the first pack and receive it via mail; they can choose whether they want to receive the book pack in Italian or in German. The public libraries join the program by handing out the second book pack when the baby is 18 months old. This is a very good chance for the libraries to get in touch with the families and to invite families who would not usually visit the library to join them. Over the years this has led to an increase in the number of library visitors. It has also led to a more diversified book inventory for very young readers.

The aim of the Center for Libraries and Reading was and still is to raise public awareness of early literacy, which is done by informing people by way of training courses, oral presentations by experts, information in the media, etc. It was clear from the beginning that this program needed lobbying. Therefore the centre has organized training courses for librarians to make them acquainted with the importance of early literacy and has taught them how to deal with small children in the library. At the beginning of the program the libraries were provided with a basic stock of picture books for children up to the age of three years. Courses and meetings have been offered from the start for parents who are keen on using the materials contained in the Bookstart packs and other recommended books in a more creative way.

Positive Survey Results

In the meantime toddlers and their parents have become regular customers at the libraries all over South Tyrol. Many libraries offer specially equipped areas to make small children and their parents feel at ease. These include cozy corners with cuddly toys or simply the chance to pop in and have a quiet moment by sharing a book with the baby.

Two years after the implementation of the Bookstart program, in 2009, the Bookstart team wanted to find out whether its efforts had been successful and therefore sent out a questionnaire to the first 2,000 families who had joined the initiative. The response rate was very high, 63%, and the outcome very positive. One of the questions was "Does your son/daughter show you of his or her own initiative that she or he wants to share a book with you?" Overall, 98% said yes. By then the children were one and a half to two years old.

Questions on parents' attitude towards books in general were part of the questionnaire. For example, 32% of the parents

said they now give books as presents more frequently, 24% maintained that they go to libraries more often, 20% said that they encourage others to share books and 43% replied that they have become aware of how important it is to talk to the child and to share books and have been doing this more frequently – due to our Bookstart program.

Here is some feedback from parents who have joined our program and who love sharing books with their babies: "Thank you for the extra help with education which you are providing with this program," and, "I would never have started sharing books with my son so early, but I now realize how important it is to do so!"

In the meantime, awareness and understanding of early literacy and the need to share books with small children have risen not only among parents but also among the people who work in public libraries. Some of them were reluctant at the beginning of the program but have now learned what it means to share books with small children. They know that with a small but recurrent effort they can contribute to inspiring a lifelong love of books and to preparing children for better school life and for more success in later life. Most public libraries now offer rhyme-time units and regularly invite parents and their toddlers to come to the library.

Last but not least, I would like to mention John Protzko, a scientist from New York University, who has recently published a research paper on "How to make a young child smarter." In his study on what can be done in the first five years of life to raise a child's intelligence, he has found out that, among other things, such as feeding young children omega-3 fatty acid supplements and sending them to nursery school, it is interactive reading with children under four that can boost their IQ by around six points.[3]

Notes

[1] Wolf, Maryanne. 2007. Proust and the squid: The story and science of the reading brain, p 3. New York.

[2] http://www.provinz.bz.it/kulturabteilung/jugendarbeit/bookstart_de.asp (in German)
http://www.provinz.bz.it/kulturabteilung/jugendarbeit/bookstart_it.asp (in Italian).

[3] http://www.west-info.eu/files/Perspectives-on-Psychological-Science-2013-Protzko-25-40.pdf.

Dr. Helga Hofmann

Dr. Helga Hofmann studied foreign languages (English, French and Italian) and translation sciences at the University of Innsbruck in Austria. She worked as a teacher of English as a foreign language at different secondary schools in South Tyrol, Italy. After receiving her qualification as a school library director, she became increasingly involved in projects for the promotion of reading. Since 2004 she has been working for the Centre for Libraries and Reading, which is part of the Provincial Government of South Tyrol. She develops and implements programs for children and young people and carries them out together with public libraries and school libraries in South Tyrol.

René Ponce Carrillo / Alma Carrasco Altamirano

Bebeteca Lee Antonia: Early Childhood and Literacy Experiences in Mexico

Introduction

"For centuries, libraries have been characterized as places of wisdom, meeting points for those who seek knowledge and institutions to open the doors to the world of art, culture and science. Today, they are far more than that. They offer classic literature next to entertainment media. They organize reading events with popular authors, theme nights and media activities for all age groups. Libraries can function as a key to interest children in books or reading in general. All around the world, libraries play a major role in Early Literacy Education. In many countries, they represent the only possible place for children to get in touch with books or magazines." (Stiftung Lesen 2013, 68). In Mexico, libraries and bebetecas – libraries for babies – function poorly and scarcely. Our Bebeteca Lee Antonia recently turned 5 and our experience with it has made evident the importance of providing adequate spaces for reading during early childhood. In Mexico, the challenge is as big as the size of the country's territory, but even more so given the complexity of its culture and the history behind it.

Ideal Conditions in a Reading Environment for Early Childhood: Spaces and Mediators

There is sufficient evidence, both from literature and from the experiences documented at Bebeteca Lee Antonia, that the presence of protective, stimulating and caring environments mean as much for children's development as the nutrients in their food. Children construct their identity – their personal, social and cultural reality – from the interaction and sharing of meanings with the people around them and their emotional ties. Attachments and relationships are the emotional bonds that children establish with their parents and other key caregivers; these ties are crucial to the welfare of children and their social and emotional development (Ramirez 2009, 66). We are convinced that by promoting reading in early childhood we are sure to attract all other members of society.

We see the bebetecas as necessary, socially constructed spaces providing a cultural possibility for children and their families: ludic, diverting reading environments that offer a "playful texture."
We speak about a playful texture as a sort of atmosphere that supports and particularizes all activities undertaken with children, giving them a characteristic image in different contexts and times. Perhaps because of this, when entering these spaces, they already "speak" of games, even when no children are present. As a theoretical category, playful texture is the result of a series of decisions, not always obvious to the teacher, that draw from each of the components of the situation (environment, materials, relationships, rules and regulations, content, etc.). In child-care spaces, the special provision associated with these materials and objects and the way in which interpersonal relationships are established and games are offered all make up this texture, which acts as a substructure in which proposals ensue (Sarlé and Vicenc 2009, 95).

In our bebetecas, four material resources are necessary for the construction of a stimulating environment that nurtures reading:
1. A collection of quality books consisting of at least 100 books covering different topics, categories and authors
2. Book Baskets, or containers used to transport and present books within the space
3. Non-slip mats to carpet the area where the Book Baskets are located
4. Cushions to sit, lie and relax while reading with young people

When thinking about reading in specific environments with babies and children, we ought to consider that the space should provide them with the opportunity to encounter many different good books. Babies and children should not only be able to explore the various materials out there to read, but to observe other people reading these materials, thus learning by watching what other people do with books. "What determines the quality of the exploration activities is the wealth of opportunities made possible by the diversity of materials, opportunities to find other resources and access to representation of lived experience" (Sarlé and Vicenc 2009, 94).

Experience has also shown that the exploratory activities proposed by adults are not always the better or most helpful ones. During the past five years, by observing children and their families growing as readers at Bebeteca Lee Antonia, we have come to understand that this observational and exploratory activity performed by children on objects progressively makes them more efficient in interacting with the environment, providing a verification of the various settings in which they must make an effort to adapt to the setting and modify it creatively. Participating in this type of interaction impels them to inquire about the laws that govern the world. This is how, from a few months, most of their actions and exchanges are formed: by the desire to know and understand (Sarlé and Arnaiz 2009, 94).

In a reading environment such as Mexico's, one that lacks a tradition but where people want to learn, the person that reads to others must certainly have personal talent, but, above all, they must respect the children's reactions, so they can be guided by the youngsters' interests and appetites without ever endangering them. Thus, the children are their guides: both spectators and actors (Bonnafé 2008, 70).

The job of reading mediator does not require offering interpretations, reading exercises or questions to the listener, it simply means reading and, from there, possibilities will grow out of the encounters with books.

Why Do Babies Read When They Do Not Yet Talk? Children Four and Younger as Readers of Good Books

A library for babies is nothing simple and, as suggested by María Emilia López, "It is not a library of simple texts, there is transgression, there are challenges and aesthetic diversity… It is not a library of illustrations with flat color, nor is it of texts that 'teach' anything… It is not a library of 'easy' words but rather a library full of illustrations that are works of art, and we could say that in that sense such a library is also a gallery" (López 2007).

Part of the publishing industry has held misconceptions regarding babies and children and reading, such as the idea that baby books should not contain words or that they should be designed with bright colors. When you ask people who are in contact with young children what children do with these books, the unanimous answer is: They abandon them quickly. We are far from thinking so simplistically and, as suggested by López (2007), we are against offering young children "simple" books, scarce words, figurative or realistic images, because, contrary to common belief, children would not understand them, and neither would adults.

Not only must books be thoughtfully created, but children must be accompanied as they read them. Adult voices provide the sounds through which the books and their images spring to life as a meaningful experience in which the child, the adult and the book become the practice and the message.

"It is very sad that books for babies have become good-conduct manuals for the early age… The child thinks, dreams and relates to the universe of stories in order to understand the world, in its own way and according to his own taste" (Bonnafé 2008, 166).

Why We Must Address Early Childhood Culturally

UNESCO states that special attention to early childhood is fundamental because the establishment of a solid foundation from early childhood – which includes good health, nutrition and a protective environment – can contribute to a smooth transition to primary school and offer more opportunities to complete primary education and get out of poverty. The organization also says unequivocally that early interventions are essential, and that compensating for educational and social development deficits of older children and adults is much more difficult and expensive than taking proper precautions and providing necessary support in early childhood (UNESCO 2010, 11-12).

Reading to young children is not currently a widespread cultural experience in Mexico, even with its rich oral traditions in which there are of course many examples of literature for children. To encourage reading with children and make it widespread would pave the way to ensuring that all children and their families are regularly in contact with quality books and that, through the books, the quality of affective, social, linguistic and cognitive interactions among family members improves. Good books are an outstanding resource to efficiently face this challenge.

Cultural Possibilities from Books and Libraries

Children play with books and reading. They relate to them as cultural objects and learn from the practices around them that sum-

mon the participation of others. "The game as cognitive activity is associated with the development of abstract thinking, perseverance and concentration, divergent and creative thinking, and the development of analysis and synthesis processes that facilitate perceptual organization" (Johnson, Christie and Yawkey 1999; Sosoaga Lopez 2005). Regarding language proficiency, the very need to communicate with others to play consistently stimulates coherent language and the appearance of grammatically complex idioms (Bruner 1989; Manrique and Rosenberg 2000). As an instrument of socialization, playing stimulates the processes of communication and cooperation among peers, expands knowledge of the adult world and promotes social development by voluntary assimilation of moral rules of conduct that facilitate the development of personal conscience (Elkonin 1980; Garaigordoil 1995; Litwin 2008)" (in Sarlé and Vicenc 2009, 92).

We have also recognized and documented that children that come to bebetecas are naturally attracted to the books there and that when manipulating them they interiorize their existence and, by having different reading experiences, they build hypotheses about the functioning of books as cultural objects. The importance of having time to experiment with these objects is fundamental. Multiplying the opportunities of reading and interacting with quality books in early childhood ensures better reading trajectories. We agree with Bonnafé that "playful contact with the texts does not imply immediate acquisitions. It precedes and accompanies, for a long time, the moment of systematic learning of written language" (2008, 37).

Reading Is a Social Practice

We want to close this text by explicitly adopting the stance that reading is a social activity. What happens in the social environments of people affects their development. Literacy events in which the youngest play a part, particularly those reading activities that are directly intended for them, pave the way to new possibilities of finding quality books to read. The challenge is ensuring these encounters happen every day.

In a study of the state of knowledge of written culture, or literacy, in familiar contexts (Compton et al. 2012), the authors found that articles produced in the 1990s associated family literacy with social change, in the first half of the 2000s it was seen as an intellectual right, and the most recent studies document the multiplicity of literacy practices found in different families, or multiple literacies. This text has proposed some arguments about the first two viewpoints based on a variety of reading events offered by a public library and bebeteca in Mexico. Our purpose is to help visualize early childhood as a subject of cultural relevance that needs to be addressed both by policymakers and families.

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Prof. René Ponce Carrillo holds a master of management of educational institutions. His master's thesis is entitled "Epistemological Beliefs as a Resource for Understanding among College Students. Reading Multiple Texts in College: A Necessary Axis of Reflection for the Administrators of Education." He is also an academic advisor at Universidad Madero (UMAD) in Puebla and lecturer at the Universidad Veracruzana (UV) in Veracruz, Mexico. He has been collaborating in Consejo Puebla de Lectura (CPL) since January 2012, developing various projects aimed at fostering reading in early childhood. His research and academic interests are related to academic literacy of college students and teachers, as well as reading in early childhood. Additionally, he is interested in documenting and engaging in communitary learning related to literacy and vernacular literacy, dealing specifically with video games in education and learning. He recently organized the XII Latin American Congress for the Development of Reading and Writing and the IV Iberoamerican Forum of Literacy and Learning, which took place in Puebla, Mexico, in September 2013.
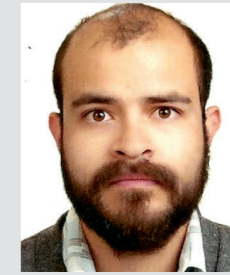
Prof. Alma Carrasco Altamirano

Prof. Alma Carrasco Altamirano has been a professor and researcher at Benemérita Universidad Autónoma de Puebla in Puebla, Mexico, since 2008, where she has participated in projects related to academic literacy. She is a Mexican researcher recognized by the National System of Ivestigators (SNI-Conacyt). The focus of her research and work is written culture.
In 2001 she developed and created a civil society organization, Consejo Puebla de Lectura AC (CPL). She was a president of CPL until December 2012. During her tenure there she pioneered work and research on reading in nonscholary environments and, in particular, on reading in early childhood, primarily in conjunction with the services and activities of the bebeteca Lee Antonia.

Maja Vestbirk

Bringing the Libraries to the Children: The Danish Approach to Early Literacy Learning within the Library Sector

An Early Start
Danish children start learning to read later than children in many other countries around the world. In the Nordic countries, children start school when they are six years old and for many years there has been a paradigm in the Danish welfare system that learning is the sole responsibility of the classroom. However, research shows that there is a great potential in introducing the written language earlier – not necessarily in an educational way, but rather through games (e.g. letter games).

Today's children have many options for different leisure activities. Subsequently, libraries must reach out to kids and meet them in their everyday lives. Libraries have a unique role in terms of providing informal settings for learning. However, to ensure that all children are exposed to libraries, it is important that all children have the option of gaining access to them. The majority of the non-users of libraries are those with little education and a low income. Libraries can play an important role in breaking this negative social inheritance. The question is how?

Bogstart – The Danish Bookstart Program (0 to 3 years)
Children who have had experience with books before starting formal education have been shown to develop literacy and language easier than those who haven't. The gap is thus created way before children start school. This has obvious implications for children's literacy development and underlines the importance of an early start.

Inspired by the British Bookstart program, a similar program was introduced in Denmark in 2008. Instead of cooperating with the healthcare sector as in many other countries, partnerships were formed between libraries and kindergartens. The purpose of the program is to give the youngest children in disadvantaged areas a solid beginning with books and reading. Librarians in disadvantaged areas visit families in their homes when the baby is six months old and again when it is one year old to introduce language-development strategies and good quality children's books to the families. The book packages contain leporellos (folded-paper books), songbooks, rhymes, picture books and fairytales. The families can collect the third package at the library when the child is one and a half, and the fourth is given out in the kindergarten when the child turns three. Alongside the home visits, the library hosts a range of language development activities, which take place in the library.

The most important message is that everybody can stimulate and motivate young children to develop their language, it doesn't take a professional. The crucial thing is that the children are willing and ready to experience the books, touch them, chew them and examine them. It is the being together and having a good time that gives infant literature its strength and opens up an opportunity to use the language, to describe things in words and to make noises.

The librarians' knowledge about books and reading strategies strengthens the presentation of the books and creates a stronger bond between the libraries and the families. The library is a good place to start becoming involved in the local community and, by starting early, the chances are much greater that children will have access to knowledge and books later in life. Research carried out in 2011 showed that 58% of families changed their reading habits after being part of the Danish Bookstart program.

The Center for Child Language at the University of Southern Denmark is now conducting a study and expects to publish results in 2016 on the impact of the program on children's language development.

Kindergarten Libraries (3 to 6 years)
Another example of libraries reaching out to families with young children is the Kindergarten Libraries project. In Denmark, 97% of all children are enrolled in a kindergarten, so the majority of all families with young children can be reached through this institution, making it an obvious starting point for a national reading program. The kindergarten can act as an informal setting where kids can familiarize themselves with books and written language.

The main purpose of kindergarten libraries is to give children access to daily experiences with books, and to encourage parents' interest in reading aloud. The kindergarten libraries contribute to providing democratic access to books and other materials, as they provide all children with equal access to books and reading. A national survey shows that people living in remote areas use libraries less often than those in the cities, so Kindergarten Libraries can compensate for the geographical and time-factor barriers that prevent people from visiting the library.

Stimulating Children's Literacy
The Kindergarten Library project ran for three years in Denmark. Evaluation of the program shows that the project has fortified the kindergartens' interest in using books and reading aloud every day and in their work of stimulating children's language development. Additionally, kindergartens have sharpened their focus on informal activities relating to written language.

The project gives preschool children experience with books that support their language skills, their personal development and their interest in learning to read. And more interestingly, 60% of the kindergartens claim that children use the material found in the books in their games and dialogues.

In both programs, dialogical reading and reading out loud produce good results and give the children and adults a shared foundation of stories. Some Kindergarten

Libraries offered books for parents as well, as an addendum. The obvious purpose was to support the parents in their reading, but indirectly the children gained from it as well, since the literature for adults fortified the adults' interest in the project and encouraged them to become role models for their children.

How Can We Continuously Support ELE?

Cooperation across sectors is crucial to ensure greater literacy among children. Both kindergartens and libraries have gained from the cooperation in the two projects, which have made it easier for them to work together towards a shared goal. In addition, there is a demand for an early, joint effort. The library can, for example, provide the parents with tools and inspiration to read to their children. To make sure that time and geography do not become a barrier to literacy, easy access for all must be created.

The two cases presented here focus only on printed books. To continuously create good reading projects, digital technology must play a bigger role in future reading programs.

Regarding the Danish Bookstart program, it would be advantageous to expand the program to all families with young children in Denmark, as all children could then gain from it.

Just as throwing a ball to a child is a natural way of developing the child's motor skills, early literacy programs can become a natural way of developing a child's language skills. Literacy must become a natural activity in the relationship between children and the adults in their lives. The infant might not catch the ball, but throwing it is an excellent and effective way of practicing. Talking and reading to children can have a similar effect.

Maja Vestbirk

Maja Vestbirk is a consultant in the Danish Agency for Culture and a project manager for the Danish language development program Bogstart. Her main focus areas are child culture and children's culture, early literacy, boys and reading, and children's libraries. She is also involved in reading projects such as Børnehavebiblioteker (Kindergarten Libraries), which provide children in day care easy access to positive experiences with books and stories - both in day care and at home; Drengelitteraturprisen (The Boys Literature Prize), a literary award given to authors writing novels with the purpose of inspiring young boys to read; Læselyst (Desire to Read) a national campaign supporting initiatives such as reading campaigns for school children and literary activities for youngsters; and a range of different early media literacy initiatives.

Shannon Riley-Ayers / Megan Carolan

The Policies of Early Literacy in the United States

Introduction

The federal government's definitive entry into public education in the United States was marked by the passing of the Elementary and Secondary Education Act (ESEA) in 1965. This provided federal funding for schools with a high percentage of students from low-income families. This increased funding for schools brought the need for more accountability. The National Assessment of Educational Progress (NAEP) was introduced for accountability and as a means to track student progress.

The most recent administration of NAEP in 2011 tested a nationally representative sample of 213,100 fourth-graders in reading. For this test, students responded to questions designed to measure their reading comprehension across two types of texts: literary and informational. These latest results show that 33% of students in grade 4 tested below basic level and 64% of grade 4 students tested below proficient (National Center for Education Statistics 2011). These results are only more grim for low-income students and do not differ from the results found in 2009. In 2010, Fiester writes, in response to analyses of the NAEP scores, "If current trends hold true, 6.6 million low-income children in the birth to age 8 group are at increased risk of failing to graduate from high school on time because they won't be able to meet NAEP's

proficient reading level by the end of third grade" (2010, 2).

In an attempt to influence the progress of students in US schools, Congress passed the reauthorization of ESEA as The No Child Left Behind Act (NCLB) in 2001. NCLB requires states to have a system of reporting student progress including annual testing and it further requires that all students demonstrate proficiency in math and reading on these measures by the school year 2013-2014. With this deadline nearly upon us, close to 40 states have applied for and received "flexibility" (waivers), which provides state leaders and educators flexibility regarding specific requirements of NCLB (USDOE 2013).

In this short article we provide a brief look into several of the policies states are implementing to reach this proficiency target. We end the piece with a few key recommendations to further the work to achieve proficiency for all in reading in the United States. We begin first with a brief summary of the research support highlighting the importance of proficiency in reading and the rationale for third grade as the target.

Research Background

It has long been recognized that early reading proficiency skills are linked to later academic success (Barth 2012). There is strong research support for key areas of literacy de-

velopment that have direct links to children's later success in early reading (Snow, Burns and Griffin 1998; Strickland and Riley-Ayers 2006; NELP 2008). Oral language, phonological awareness, alphabetic knowledge, print concepts and writing have all been shown to be correlated to and be predictive of later reading outcomes. Studies of the predictive power of third grade reading achievement, in particular, show that achievement at this level can predict later school reading levels (Lesnick, Goerge, Smithgall and Gwynne 2010). This longitudinal research also demonstrates that achievement in grade 3 reading is related to later learning opportunities. Students above grade level in reading at grade 3 were shown to both graduate high school and enroll in college at higher rates than their counterparts who perform at or below grade level in grade 3 (Lesnick, Goerge, Smithgall and Gwynne 2010). Coupling the relationship between grade 3 reading levels and future achievement with the notion that the move from grade 3 to grade 4 signals a change from learning to read to reading to learn (Feister 2010; Lesnick, Goerge, Smithgall and Gwynne 2010) leads many to believe that grade 3 could be a last chance to make a difference in children's reading ability. It is moving forward from here that the rich get richer and the poor get poorer (Stanovich 1986). Those with higher reading skills read with ease and will read more, thus continuing to increase their skills. On the flip side, those students who struggle with reading concepts such as decoding or comprehension find reading to be laborious and will engage less in reading, thus continuing through a cycle of little improvement.

The policies that are described here demonstrate a focus on early literacy with a special emphasis on proficiency in reading by grade 3,

using the research base outlined above as support for this critical legislation.

Policies in the United States
Reading First and Early Reading First
The No Child Left Behind Act (NCLB) of 2001 established two federal programs aimed at improving reading proficiency of students. Reading First provided states funding to apply research-based reading research and proven techniques aimed at increasing reading achievement. State education agencies, in turn, awarded competitive sub-grants to local education agencies that showed the most promise of implementing these practices effectively with the end goal of having all children reading at or above grade level by the end of third grade. The Early Reading First (ERF) program provided funding to preschools, particularly those that serve children from low-income families, to support the development of children's language and literacy skills.

The Reading First program ended by 2009 partly because of implied mismanagement of the program and perhaps because of the mixed research findings. The researchers found that Reading First had a positive, statistically significant impact on the amount of instructional time devoted to components of scientifically based reading instruction, the amount of professional development teachers received in reading, the extent to which schools used literacy coaches and the amount of highly explicit instruction provided (Gamse, Jacob, Horst, Boulay and Unlu 2008). However, there was no evidence that Reading First improved students' reading comprehension (Gamse, Jacob, Horst, Boulay and Unlu 2008). Early Reading First evaluations found similarly that professional development and mentoring as a form of training for teachers increased (Jackson et al. 2007). The

researchers also found a positive impact on classroom literacy environment and teacher practices (Jackson et al. 2007). Child outcomes demonstrated an increase in print and letter knowledge, but no impact on phonological awareness and oral language (Jackson et al. 2007).

Striving Readers
The Striving Readers Comprehensive Literacy Program (SRCLP) is a federal program that funds state-led initiatives aimed at advancing the literacy skills of students from birth to grade 12 (USDOE 2013). It was initially funded for $200 million in Fiscal Year 2010. SRCLP is comprised of two types of grants: formula and discretionary. In FY 2010, formula grants were awarded to 46 states, Puerto Rico and the District of Columbia; most states received grants of $150,000 (USDOE 2013). Formula grants are awarded to state education agencies to support or establish a State Literacy Team made of experts in literacy development and education who will help the state develop a comprehensive literacy plan (USDOE 2013). Discretionary grants through SRCLP are used to create comprehensive literacy programs for birth to grade 12 students. State Education Agencies (SEAs) must award 95% of funds to local education agencies and early childhood providers that serve high-needs children, including students with disabilities and limited English proficiency, with effective literacy services (USDOE 2013). Fifteen percent of sub-grants must be used to serve children from birth to age five; 40% for children in kindergarten through grade 5; and 40% for middle and high-school students (USDOE 2013). Discretionary grants were awarded to six states for Fiscal Years 2011 and 2012: Georgia, Louisiana, Montana, Nevada, Pennsylvania and Texas (USDOE 2013). The state plans submitted by each of these states highlight

how the SEAs will work to improve literacy efforts within early childhood settings, including both pre-K and Head Start programs, and also have a heavy focus on data-based decision making and improved use of technology (NCTE 2013). SRCLP is a relatively recent program and state-level efforts are ongoing, making it difficult to assess the program's effectiveness at this time.

Third-Grade Reading
State leaders have taken notice of the research on the importance of early reading proficiency, responding with state-level education laws designed to improve early literacy. According to the Education Commission of the States (ECS), as of August 2012, 32 of the 50 states plus the District of Columbia had laws aimed at improving third-grade reading proficiency (Rose 2012). Thirty-three of these states require reading assessments to identify at-risk readers, with 55% requiring an assessment be administered annually from kindergarten through grade 3, providing multiple opportunities to identify struggling readers and track child progress. An additional 6% expand assessments to pre-K programs as well (Rose 2012). However, 27% of states only require a reading assessment in grade 3, which leaves little time to provide interventions for a struggling reader before the end of the year. Thirty states have policies in place for interventions, though the timing of these interventions differs considerably among the 28 states that specify in policy when these interventions are administered (Rose 2012). The majority (68%) of these states provide interventions from kindergarten through grade 3, though the 21% only specify interventions in grade 3, once again raising the concern that students are receiving assistance too late. The most common "required" intervention for at-risk readers, as seen in Table 1, is supplemental

instruction during regular school hours, while the most common "recommended" intervention is instruction outside of regular school hours (including after school and Saturday school).

Fourteen states as well as the District of Columbia have third-grade retention policies requiring students to pass a literacy exam or otherwise demonstrate grade-level reading proficiency in order to move on to the fourth grade (Rose 2012). All of these programs provide exemptions, including for these students receiving special education services (67%) or students who are English Language Learners (ELLs, 40%) as well as allowing an alternative assessment (47%) to demonstrate proficiency (Rose 2012).

While many of these policies are too new to have been well studied, Florida has had a policy in place since 2002, providing lessons for implementation. Florida requires that students achieve a level 2 (of 5) on the Florida Comprehensive Achievement Test (FCAT) to be promoted to fourth grade, with six "good cause" exemptions, including those students with disabilities, students who are ELLs, or those who can provide proficiency on an alternate assessment or portfolio (Rose and Schimke 2012). A report from Florida's Office of Program Policy Analysis & Government Accountability (OPPAGA) found that the number of students who repeated third grade after scoring at level 1 did increase with the new policy, as did the number of students retained in kindergarten through grade 2, perhaps in an effort to intervene earlier (OPPAGA 2006). Students who repeated third grade were also found to perform better in the fourth grade than those students who also scored low on the FCAT but were promoted through a good cause exemption (OPPAGA 2006). OPPAGA conducted site visits at several schools to observe school-level efforts toward improving literacy and found that the most successful schools set high expectations and had stronger instructional leadership than those schools that had been less successful at improving student proficiency (OPPAGA 2006).

Recommendations

States that are focused on improving third-grade reading proficiency need to address this issue from multiple angles, and cannot wait until third grade to do so. States must draw attention to the importance of third-grade reading, framing it as an urgent education issue for students, parents and educators. A retention policy is only one way to do this (Rose and Schimke 2012).

1. Improving third-grade literacy is an effort that requires buy-in from the community, which means not only keeping the parents of individual students at-risk for retention informed but also creating public goals and resources for parents to use at home (Rose and Schimke 2012). Several recent studies have found a promising impact for parent engagement interventions on children's skills such as comprehension (Roberts 2013), vocabulary growth (Ackerman 2013), and general literacy skills (Kim and Quinn 2013).

2. High-quality pre-K and full-day kindergarten programs with a focus on early literacy skills also play an important role in putting students on track for grade-level reading (Rose and Schimke 2012). The brain develops rapidly in early childhood, creating a specific "window of opportunity" that is sensitive to experiences that establish certain capabilities. Genetic studies indicate that only approximately one-third of the variability in language and later reading is determined by genetic factors (Dickinson 2011). This leaves ample room for the effects of intervention, creating a moderate to large impact on early literacy skills and later achievement (NELP 2008). The flip side to this sensitive period where interventions have the potential to provide the most substantial impact is that it is also the time when the brain is most highly susceptible to the *absence* of these critical experiences. This absence or lack of experience can have lasting detrimental effects, thus making a strong case for high-quality early education.

3. Successful personnel play a key role at all grade levels in improving student literacy, so states must invest in professional development for both teachers and school administrators, as well as develop strategies to ensure the most successful literacy teachers are available to work with students most in need (Rose and Schimke 2012).

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Types of Intervention	Required	Recommended
Supplemental instruction during regular school hours	50%	10%
Academic improvement plans for struggling readers	37%	0%
Instruction tailored specifically to students' deficiencies/needs	27%	10%
Summer school	20%	40%
Instruction outside of regular school hours, including after school and Saturday school	17%	43%
Information, support, and/or strategies for parents to work with	17%	20%
Parent involvement in choosing an intervention strategy or developing an AIP	13%	3%
Assignment to a different teacher if retained	10%	7%
Involvement of a reading specialist	7%	7%
Individual or group tutoring	3%	37%
Online or computer-based instruction	3%	10%

Table 1: Required and Recommended Early Literacy Interventions (Rose 2012).

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Cay Corneliuson

Early Literacy Education – A Task for Politics?

The Swedish Arts Council is a government authority under the Ministry of Culture. The council's task is to implement national cultural policy as determined by the Swedish Parliament.

The Swedish Arts Council coordinates activities in the cultural field, and is responsible for the allocation of state cultural funding for different forms of art, as well as to public libraries. Cooperation between public libraries and children's healthcare providers has been the focus of the council's efforts for strengthening awareness of early literacy education.

A Statutory Role
Reading promotion and language development are areas that are well anchored in Swedish legislation for cultural politics. Public libraries shall, according to the Swedish Library Law, "pay special attention to children and youth by providing books, information technology and other media appropriate to their needs, in order to promote language development and stimulate reading."

New objectives for cultural policy were established in 2009 and they are based on freedom of expression. The new cultural policy is meant to strengthen culture's role in society and create better conditions for culture to influence society's development. New cultural policy goals have been formulated to include increased accessibility to culture for children and young people and a guarantee of their right to culture.

The Swedish Arts Council also has a strategy for working with children, based on the Convention on Children's Rights. Since 2009, children have been singled out as an especially important group among the country's cultural objectives. Cultural policy is therefore to "pay particular attention to the rights of children and young people to culture."

Special Task for Reading Promotion
The Swedish Arts Council has a special responsibility for reading promotion, and has been allocating grants in this area since 1996. The council uses the term "reading promotion" in a broad sense, with literature seen as an art form, corresponding to other forms of art. When the target groups are toddlers and preschool children, reading promotion is about reading aloud, singing, rhyming, talking, etc.

Public libraries are the main actors beside children's healthcare providers in society's efforts to address reading promotion and language development for very small children. Cooperation between them seems to be ideal for improving results. The council has given grants to several projects with this purpose, mostly led by different county libraries in cooperation with local public libraries and local healthcare. This field of cooperation has a long tradition in Sweden. Different joint programs for providing free books to newborn children started in the 1970s. From the beginning the state was involved in this activity and gave allocations, mostly to projects providing free books, but also to other projects and information campaigns.

Giving away books in cooperation with healthcare organizations is a wide-spread activity in Sweden. Overall, 86% of the municipalities do it and 60% have representatives meet with parents and speak about the importance of reading, singing, talking and listening to children to stimulate language development. But there is great need for quality development, and education would raise quality. Common education also creates common objectives between different types of staff.

Cooperation Is Necessary
Since we have an increasing problem with poor reading in our society it will be necessary to make alliances across sectors to address this and related problems. Children's early language development is a concern for many professional groups: teachers, librarians, nurses, etc. To get good results, it's necessary to make alliances across societal sectors. Both libraries and child-care organizations have children's language-development as a mission. Public libraries work closely together with healthcare providers on the local level in Sweden, but coordination is necessary on higher levels since the institutions lack a common infrastructure and common hierarchy.

Sustainability Is Weak
From the long-term perspective, local activities tend to be vulnerable. Ambitious and enthusiastic librarians and nurses talk to parents about language development and hand out books. If the activities are not documented in official plans or made visible in agreements, they tend to decline when there is turnover in staff. To be sustainable, the activities need to be established in official plans. In Sweden, the cooperation also needs to be reinforced on a national level if is to be durable over the long term.

The Swedish Arts Council has used grants to support projects with different focuses, such as:
- Reinforcing cooperation between librarians and nurses
- Offering common education
- Reaching children with dyslexia and other diagnoses
- Creating networks between different professional areas
- Producing written documents such as agreements and plans to strengthen sustainability
- Meeting with parents and children in the library and helping them while they are waiting for diagnosis and professional treatment

The Swedish Arts Council is about to get a new assignment for reading promotion, perhaps as early as next year. Early literacy is one of the topics identified as an important subject for its activities. The challenge for the future will be ensuring a good standard all over the country and seeing to it that every child can make his or her voice heard.

Cay Corneliuson

Cay Corneliuson studied literature and art at the University of Gothenburg, Sweden, and then library and information science, becoming a librarian 1975. She also studied culture for children at Stockholm University and has worked as a children's librarian for about 25 years. Between 1998 and 2003 she was a library consultant and project leader in Stockholm Public Library. She has written articles and book reviews for newspapers (*Svenska Dagbladet*) and the trade press since 1980. At present, she works as an administrative officer at the Swedish Arts Council. Her responsibilities are grants for libraries and reading promotion. Her focus is developing methods for reading promotion in a cultural context on the national level, based on the perception of literature as art. The goal is to create interest in reading for pleasure, mainly during leisure time, but also in schools and the educational system.

Thomas Feist

Educational Republic of Germany: Federal Support for Early Education Programs

Education is the key. Those four words describe my understanding of good policy. They explain why I am striving to make this country the "Educational Republic of Germany." At the same time, those four words express the justifiable expectation that mothers and fathers in Germany have of policymakers and their policies: that the country's political decision makers should do as much as they can to support the country's children in getting a solid education.

Education is the key to ensuring every individual can successfully determine his or her own life – from the very beginning. Since this goes without saying and since it is generally accepted that educational activities must start as early as possible, the Christian-neoliberal parties that make up Germany's current government have made early childhood education a high priority.

At the same time, ensuring our children are well educated requires parents and families to get involved and do their part. Basic learning competencies and skills are imparted to children in their family environment. Parents must stimulate their children's interest in learning by engaging in a variety of activities, including reading them stories, making music with them, having fun disco-

vering nature and encouraging them to do sports. They have to be responsible partners when it comes to promoting learning and serve as role models for acquiring knowledge.

Authorities at all levels – national, state and local – must create the conditions that will give rise to a robust educational infrastructure. Since many parents want to balance their professional and family responsibilities, Germany's current government is also ensuring there is a sufficient number of childcare providers offering early childhood education and care throughout the country. And even if Germany's Basic Law says that the country's states are responsible – financially and logistically – for ensuring that enough facilities are available to meet each child's right to attend a child-care center and, with that, each child's needs, Germany's federal government has made clear its willingness to provide major financial assistance and is contributing € 4 billion, one-third of the expected amount needed by 2013 to get the child-care facilities up and running. In 2012, the federal government also allocated an additional € 580.5 million to create another 30,000 child-care slots. In addition, state and local governments will be receiving € 845 million each year from the federal govern-

ment to help subsidize operating costs at childcare centers and other daycare facilities. With that, the federal government will be allocating a total of € 5.4 billion through 2014 to early childhood education and care on site.

In addition to assistance for infrastructure, the federal government is committed to achieving ongoing improvements in the quality of early childhood education. Programs for promoting reading and language development as early as possible play a key role here. For example, the initiative Offensive Frühe Chancen (Pushing for Early Opportunities) is allowing us to improve the prospects of children who need higher levels of reading and language support. A total of € 400 million alone will be invested by 2014 in 4,000 specially targeted child-care centers throughout Germany – 42 in my native city of Leipzig – to fund language- and integration-promotion programs. This financial support, provided by the federal government, will allow the centers to hire more staff specialized in language development. That means the centers can assist children to acquire individually-needed language skills based on the latest research; they will also be able to include more language-related activities in their daily curriculum.

Along with language promotion, reading promotion is a key factor ensuring our children's educational success. I am very pleased that Stiftung Lesen is carrying out such a range of outstanding projects to actively improve the language and reading competencies of youngsters in Germany. Campaigns to get parents and others reading aloud to children and to have adults serve as "reading buddies" for youngsters are just a few examples of the innovative ac-

tivities that Stiftung Lesen is using to draw attention to the importance of reading and active listening. The country's policymakers are supporting these efforts. For example, the program Lesestart – Drei Meilensteine für das Lesen (Lesestart –Three Milestones for Reading) is helping encourage families to actively include reading-development activities in their daily lives. A total of € 26 million has been earmarked for the program between 2011 and 2019.

Education is the key. And education is more than just knowledge. Those beliefs are what have motivated me personally to help achieve a better culture of reading by promoting cultural education. Germany's federal government supports a wide range of initiatives – from music and reading-development projects to activities focusing on film and electronic media – that promote cultural education on site. They are all based on the same premise: Each child has his or her own individual strengths that must be discovered and promoted in order to ensure educational success. The program Kultur macht stark. Bündnisse für Bildung (Thriving with Culture. Alliances for Education) is the federal government's largest individual initiative in the area of cultural education, and it will be investing € 230 million in the coming five years in cultural education. As one of the program's partners, Stiftung Lesen will be creating 200 reading clubs throughout the country.

Norbert Hocke

Germany's Child-Care Centers Tackle Today's Challenges

Germany's child-care centers are facing a number of challenges in the coming weeks and months. As of Aug. 1, 2013, all of the country's children will have a legal right to child care. At the same time, however, there is a shortage of specialized staff at the country's child-care facilities, making it very difficult for them to carry out their work. Since the country's new educational guidelines have been implemented, the standards child-care centers must meet have risen considerably.

Despite the challenges and expectations they face, the centers' educators have been participating in numerous education-related programs. One is an initiative for age-relevant language development, which is being supported by Germany's Education Ministry through the project Frühe Chancen (Early Opportunities). The initiative's goal is to integrate language-development activities in everyday situations, as opposed to having test procedures introduced into the centers by outside language specialists.

All of the challenges discussed above can only be overcome if fundamental aspects are addressed that guarantee early child education and care meets the desired standards. To ensure this is the case, the organizations

Diakonisches Werk, Paritätischer Wohlfahrtsverband und GEW have carried out a background study that makes clear how important certain factors are, specifically the time educators are given before and after child-care activities; the caregiver-child relationship; and training for child-care center staff. Policymakers must focus in coming years on these three elements to ensure childcare facilities can meet the challenges they face. In addition, the issue of compensation is a topic of key importance for attracting qualified personnel.

Child-care centers need well-trained educators if they are to meet all of the political, economic and family-related requirements they face. It is imperative that universities as well as technical colleges begin offering the appropriate programs, since that is the only way the child-care sector can overcome its image of being a dead-end street for professionals who work there and, as a result, begin making up for the shortage of qualified personnel.

Norbert Hocke

Norbert Hocke is head of the Department of Youth Welfare and Social Work and a member of the Federal Executive Board of the German Education Union (GEW), Germany. A trained educator, he worked as an education consultant at the Episcopal Youth Office in Berlin and the Federation of German Catholic Youth from 1974 to 1978. After acquiring an advanced technical certificate he studied social work and then education at the Technical University of Berlin. From 1983 to 1993 he was the head of a Protestant kindergarten in Berlin. In 1986 he was elected to the Federal Executive Board of GEW where he is responsible for the Department of Youth Welfare and Social Work. Other board duties include family policy. From September 1998 to April 2005 he held the office of vice-chairman of GEW.
From 2001 to 2012 he was spokesman for the Federal Family Forum. He is a member of the Association of Child and Youth Services (AGJ) and a member of the main committee and the panel of experts for social professions/volunteering at the German Association for Public and Private Welfare.

Good Practices

Viv Bird

Bookstart in England: A Worldwide Early Reading Programme

Pioneered by the UK reading charity Booktrust, Bookstart began over 20 years ago as a small pilot in Birmingham. Now in 2013, Bookstart reaches out to over 2 million children and their families every year, having inspired nearly 30 similar book-gifting programmes around the world with the simple idea that an early introduction to stories, books and rhymes will offer every child the best possible start in life.

In 2012, Booktrust celebrated 20 years of the Bookstart programme. How was it that in that period, a small initiative that started in one English city changed societal attitudes towards sharing books with babies, and became an international phenomenon and the first book-gifting programme across the world? To understand how this happened, we need to look back at the early beginnings of Bookstart, what enabled it to flourish and where it is today. We also need to understand the theoretical framework, developed over many years by Booktrust, that underpins Bookstart's simple aim: to bring the joy of stories to young children.

History of Bookstart
Twenty years ago, sharing books with babies was not common thinking. However, many were concerned that children were starting primary school at the age of five without ever having had contact with books. There was also growing awareness from research that identified the significance of reading with very young children. This led to Booktrust developing Bookstart in Birmingham in 1992, working with Birmingham Library Services, South Birmingham Health Authority and Birmingham University School of Education. The pilot project involved 300 babies. Booktrust commissioned Professor Barry Wade and Dr Maggie Moore to both promote and research the Bookstart project. The findings were impressive: Wade and Moore found that Bookstart children began school with significant advantages and with higher attainment in all aspects of the nine pre-school baseline assessments. For more information on Bookstart research evaluations, see http://www.booktrust.org.uk/programmes/early-years/research/.

With this early evidence showing that Bookstart children began school with significant advantages and with higher attainment, Booktrust was determined to develop Bookstart as the first books-for-babies programme across the UK, and worked tirelessly to encourage every local authority to take on the local administration of the

programme and to appoint a local "Bookstart Coordinator". Local Bookstart strategic advisory groups were set up, pioneering the concept of health, early-years and library professionals working together to ensure the Bookstart programme was resourced and supported locally, and that new networks developed, including family centres in prisons, so that no baby missed out on the opportunity to receive their free book pack.

While providing much-needed support for local authorities, Booktrust also developed a new model of partnership with children's publishers so that Bookstart packs could be produced at a nominal cost. In July 2004, we were delighted when the Government announced funding to extend Bookstart to become a national scheme, ensuring universal provision of free books at three ages: for babies, for toddlers and for 3-4 year olds before they started school.

Bookstart promotes and encourages book sharing in the home, but also recognises the valuable role of key professionals – who are trusted by parents and carers – to give parents high-quality messages about the benefits of sharing books, appropriate to the family and their needs.

Of course, many parents and carers recognise the pleasure that snuggling up and sharing a book together brings for both parents and children. But for others, this is difficult to start doing, especially when it is not something they experienced in their own childhood. To tackle the problem, Bookstart takes a multi-stranded approach in recognition that professionals, as well as parents, need help and advice about how to talk about reading and sharing books with very young children. Parents and carers need

regular opportunities to learn and grow in confidence about sharing books with their children, so they are empowered to do so on a daily basis.

Bookstart is therefore a programme that gives free books, supports professionals and runs public campaigns and promotions. These include the Bookstart Bear Club, which encourages library membership, and the annual National Bookstart Week, during which families are encouraged to attend exciting reading events in their local communities.

Conclusions

Bookstart has come a long way since its beginnings in 1992. Sharing books with babies in the early 1990s was not a common idea, and the Bookstart programme has undoubtedly meant that a baby today that has no experience of a book is an exception. Booktrust's partnerships with publishers remain strong and the industry continues to support Booktrust as it develops new models of delivery. Library services and health practitioners remain key partners. Special Bookstart packs for children that are deaf or visually impaired, and for children whose first language is not English, ensure that no child misses out. We are developing more targeted approaches working with Children's Centres to give more intensive support to those families that need it most.

Critically, the English Government's commitment to fund the programme has been sustained, recognising the significant contribution Bookstart makes to the promotion of literacy and early reading. Bookstart has grown into a UK-wide programme, with funding from the devolved governments in Wales and Northern Ireland; in Scotland, the government supports Bookbug, Bookstart's

sister programme. Across Europe, thanks to the work of EU Read, a consortium of reading promotion organisations, Bookstart programmes are widespread, including: Lesestart in Germany, Boek Babies in Flanders and the Art of Reading in the Netherlands. Indeed, Bookstart has 26 affiliates from countries across the world who have drawn from the UK experience, research evidence, resources for partens and practitioners, and promotionel ideas.

And the last word should, of course, go to a parent, who said of the programme, "Bookstart really encouraged me to read books to my child."

Viv Bird

Viv Bird is chief executive of Booktrust, the UK-wide charity that empowers people through reading and writing. Since her appointment in 2007, she has led Booktrust to become an influential voice for reading for pleasure.
A former adult literacy teacher, project director and a school governor for 25 years, she has wide experience in the education and literacy fields. She is the author of a number of influential policy papers on literacy and social inclusion and co-author of a chapter in an international family literacy textbook.
She is the current chair of EU Read and is regularly invited to speak at international events. In 2005, she was invited to become a fellow of the Royal Society of Arts.

Bettina Kümmerling-Meibauer

Bookstart: Bringing Books to Babies

In an ever increasing range of cultural settings, current research reveals the variety and importance of the preschool experiences and knowledge that children gain from an early acquaintance with stories and books. Studies in linguistics, cognitive psychology, educational theory and children's literature have shown that children's books are fundamental to language acquisition, visual literacy and literary literacy (Jones 1996; Rau 2009; Meibauer 2011; Kümmerling-Meibauer 2011). In this respect, word learning with the support of picture books plays a crucial role, since children's future success in school is dependent on their having a huge lexicon at their disposal (Bloom 2000; Kümmerling-Meibauer, Meibauer, Nachtigäller and Rohlfing, forthcoming). These findings on the impact of emergent literacy on small children's understanding of books, pictures and stories stress that the different literacy concepts connected with book sharing are not innate, but must be acquired in a long-term process. Case studies and experiments emphasize that small children definitely benefit from regular book-reading sessions (Jones 1996; Hall, Larson and Marsh 2003; Whitehead 2004; Neuman and Dickinson 2011). It is no wonder, then, that the idea arises of enabling as many children as possible to come into contact with books.

This was the start of a small project called Bookstart at the University of Birmingham in 1992, when a team of educators and university teachers decided to provide parents of preschool children with picture books. They investigated the influence of early joint book reading and were able to show that it improves children's language development and acquaintance with narratives, a crucial precondition for the understanding of complex stories. In addition, by means of long-term studies, they were able to demonstrate the connection between early book usage and later skills in reading and writing (Moore and Wade 2003).

Local and International Appeal
The success of the Birmingham project led to its extension to other British communities, after which Booktrust developed a Bookstart model for the entire United Kingdom. Today, all newborn children receive a book pack in order to support their encounter with books as early as possible. In order to continue this promising project, further book packs are distributed to children when they are three and six years of age. Partner networks, consisting of libraries, kindergartens, primary schools, and doctor's offices, have been established to promote the overarching idea that book sharing at an early age has a huge impact on children's linguistic, cognitive and social progress.

Since then, many similar projects have been set up in Australia, Belgium, Canada, Denmark, France, Germany, Ireland, Japan, New Zealand, Portugal, Sweden, the Netherlands, the United States and other countries worldwide. Although a thorough glance at the world map reveals that most of the Bookstart projects are situated in Europe and the Northern Hemisphere, the establishment of comparable projects in Argentina, Colombia, Japan, South Korea and Thailand shows that the interest in promotional programs for very young children is increasing and that book sharing is regarded as a crucial step in fostering small children's language acquisition, narrative understanding and comprehension of symbolic languages.

Diverse Bookstart programs were on display in an exhibition shown at the Leipzig Book Fair as a complement to the international conference "Prepare for Life!" in March 2013. Visitors seeing the range of programs on display were apt to wonder what the commonalities and differences between them are. Most interestingly, despite their different cultural, social and economic backgrounds, all of the programs distribute their first book pack to infants younger than six months of age. Thus, they express the general idea that parents should be encouraged to begin shared book reading before the child's first birthday. So far, the majority of Bookstart programs allocate just one set, while others distribute between two to four sets, often at 18 months, 3 years and 6 years. This age scale is correlated with seminal steps in language acquisition on the one hand, and the entrance into educational institutions (nursery school, kindergarten and primary school) on the other hand.

Following the British model, all book packs include one to two picture books, a list of recommended books, reading guidelines for parents and caretakers, and an invitation to visit the nearest library. Some Bookstart sets also have additional contents, such as crayons, pencils, coloring books, CDs with children's songs, and posters. They are meant to promote activities that are closely linked to book sharing, that is, listening to and singing children's songs and drawing pictures.

Importance of Visual Literacy
Most importantly, almost all sets consider the fact that people have different linguistic backgrounds and that an increasing number of children grow up in a bilingual or even multilingual milieu. For this reason, the guidelines and book lists are translated into several languages. Besides major languages, such as English, French and Spanish, the sets increasingly show respect for native languages and languages spoken by minorities and by people with a migration background. Some sets even contain multilingual picture books, thus acknowledging the benefits of multilingualism in an increasingly global world (Gawlitzek and Kümmerling-Meibauer 2013).

According to recent studies in the realm of linguistics, developmental psychology, cognitive studies, literacy studies, children's literature research and literary didactics, the guidelines rightly point to the important contribution of children's books for language training, narrative competence, and intercultural learning. Although all sets include picture books because of the target group, a further aspect is often mentioned in passing: the impact of visual literacy. Visual literacy investigates the visual codes that determine images, whether in print or in audiovisual and interactive media. Since picture books are characterized by a close

relationship between text and pictures that often complement each other, the significance of the pictures for the understanding of the story and the acquisition of metalinguistic awareness is often underestimated. Even images in a picture book are determined by visual codes, although people are usually not conscious of these codifications, especially when they concern basic codes, such as the discrimination between fore- and background and the knowledge that a two-dimensional picture of an object presents a three-dimensional object. However, images cannot always be understood in an ad hoc fashion; their comprehension is based on codes that must be learned over the course of many years. This process usually starts when children are approximately nine months old and continues until, and even throughout, adolescence. This is particularly true in light of the development of new (digital) media and the emergence of hybrid works in the realms of picture books, comics and movies, which demand a lifetime acquisition and extension of new visual codes. In this respect, the early encounter with picture books presents a crucial step in young children's appreciation and understanding of pictures.

For anyone dealing with young children – parents, educationalists, caretakers and teachers – being able to comprehend the different stages of language acquisition and the codes and conventions of visual images and narrative strategies will help shed light on the actual developmental stages of children, enabling adults to provide learning experiences that can build upon children's current knowledge and skills. Given these facts, one might assume that any scholar interested in the impact of picture books and storybooks on children should certainly be keen to know how these books and the related child-adult

discussions have the potential to enhance children's understanding of how visual images and the accompanying text manifest meaning. Introducing books to young children and reading at an early age is a seminal experience that no child should miss, since the encounter with books stimulates the imagination, increases the child's lexicon and knowledge about dialogic interaction, and fosters the appreciation of visual codes and symbols, which is very important in our multimedial world.

Sharing picture books and story books definitely enhances children's learning processes in different cognitive domains, thus contributing to the child's increasing language acquisition, literary literacy and visual competence. Children who regularly have the opportunity to look at pictures in books at length and listen to stories read aloud benefit from this exceptional reading situation in different respects. Last but not least, book sharing contributes to a close and intimate relationship between children and adult mediators, and it encourages children to find pleasure and fun in reading books from very early on.

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Prof. Dr. Bettina Kümmerling-Meibauer

Prof. Dr. Bettina Kümmerling-Meibauer is a professor in the German Department at the University of Tübingen, Germany. In 2010 she held the guest professorship in memory of Astrid Lindgren at Linnaeus University, Kalmar/Växjö, Sweden, and in 2011 she was guest professor for children's literature at the University of Vienna. She is co-editor of the book series *Children's Literature, Culture, and Cognition* (John Benjamins, Amsterdam), and *Europäische Studien zur Kinder- und Jugendliteratur* (Winter, Heidelberg). She is also chair of the research project Children's Literature and European Avant-Garde, funded by the European Science Foundation. She has written five monographs and edited or co-edited twelve books, and was advisory editor of *The Oxford Encyclopedia of Children's Literature* (OUP, 2006). Her research interests are international children's literature, interfaces between children's and adult literature, canon formations in children's literature and the relationship between literacy studies, cognitive studies and children's literature.

Bookstart around the World: Background Information and International Adaptation of a Successful Early Literacy Program

Global Bookstart Programs and Their Impact

International comparative studies such as PISA and PIRLS show that a significant number of children and adolescents in most countries of the world have insufficient reading skills. Yet, good reading skills are necessary for developing an ability to learn and for social integration regardless of educational background or social status.

The sooner parents introduce reading to their children using interesting stories and in a playful way, the greater the chance that their children will enjoy reading and learn to read well. Such an opportunity is provided by the Bookstart programs found around the globe, which emphasize reading from very early on. The programs:

- allow even the very young to experience reading and story-telling in a familiar environment,
- provide parents with suggestions on how to convey "reading" to their children using all the senses, and
- make use of the experience gained through Bookstart, the program developed by Booktrust in the UK.

Sensitizing and Motivating Parents

Research from Bookstart UK shows that through the program:

- Parents are motivated and encouraged to read to their children.
- Children growing up with Bookstart develop better language and cognitive skills.
- Each pound of public investment in Bookstart produces £25 in "social return".

The accompanying research on Lesestart, the pilot project in Germany based on Bookstart (implemented from 2006 to 2009 in the Free State of Saxony) shows that:

- 10 % of the participating parents began reading to their children due to Lesestart.
- 23 % of the participating families borrowed or bought books more often.

- 25 % of the parents started talking to their children about stories more frequently.
- 30 % of the parents increased the time they spend reading.

Based on these findings, the nationwide initiative Lesestart – Three Milestones for Reading was launched in 2011, by the German Reading Foundation (Stiftung Lesen) and funded by the German Federal Ministry of Education and Research (BMBF).

Networking Is the Key to Success

Access to families through pediatricians, libraries, day-care centers and elementary schools often plays an important role. All reading promotion programs rely on an extensive network that includes various partners (libraries, schools, public institutions, social organizations, foundations, celebrities, etc.).

More information on the Bookstart exhibition is available on the website readingworldwide.com.

Bookstart Worldwide

Argentina – Comienzos Compartidos (Fundación Leer)
Australia – Better Beginnings Family Literacy Program (State Library of Western Australia)
Australia – Book Buzz (Indigenous Literacy Foundation)
Australia – Great Lakes Bookstart (Great Lakes Library Service - Forster Library)
Austria – Buchstart: mit Büchern wachsen (Österreichisches Bibliothekswerk, Forum katholischer Bibliotheken)
Austria – kinder lieben lesen (Vorarlberger Landesregierung, Fachbereich Jugend und Familie)
Austria – Buchstart - Kinder lieben Bücher (Büchereien Wien)
Belgium – Boekbaby's (Stichting Lezen Vlaanderen)
Belgium – Babys brauchen Bücher - Mit Büchern groß werden (Medienzentrum der Deutschsprachigen Gemeinde)

Canada – Ready to Read Baby Bag (Ottawa Public Library / Bibliothèque publique d`Ottawa)
Canada – Read to Me! (IWK Health Centre Halifax)
Colombia – Leer en Familia (Fundalectura)
Croatia – Knjige za bebe (Public Library "Fran Galovic" in Koprivnica)
Denmark – Bogstart (Børnehavebiblioteker c/o Kulturstyrelsen / Center for Bibliotek, Medier og Digitalisering)
France – Premières pages (Ministère de la Culture et de la Communication)
France – Les Bébés aiment les livres (Conseil général de l`Archéde)
France – Livre et petite enfance (Département Seine-Saint-Denis)
Germany – Buchstart - Kinder lieben Bücher, Hamburg (Buchstart - Seiteneinsteiger e. V., Hamburg)
Germany Lesestart - Drei Meilensteine für das Lesen (Stiftung Lesen, Mainz)
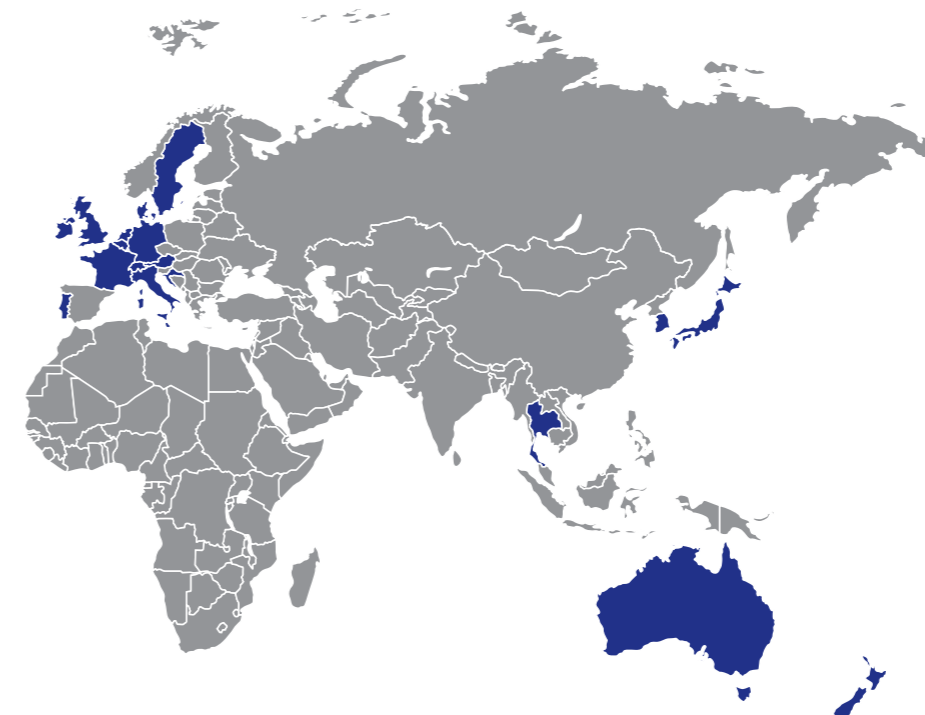
Great Britain – Bookstart (Booktrust)
Great Britain · Scotland – Bookbug (Scottish Book Trust)
Ireland – Preparing for Life (Preparing for Life, Darndale)
Italy · South Tyrol – Bookstart - Babys lieben Bücher; I bebè amano i libri; I pitli à gën i libri (Autonome Provinz Bozen, Südtirol)
Italy – Nati per Leggere (Centro per la Salute del Bambino ONLUS)
Japan – Bookstart (Bookstart Japan)
Malta – Il-Ktieb Tezor (Gharghur Local Council)
Netherlands – BoekStart (Stichting Lezen Amsterdam)
New Zealand – Books for Babies (Christchurch City Libraries)
Portugal – Crescer a ler (APEI - Associação de Profissionais de Educação de Infância)
South Korea – Bookstart (Book Culture Foundation)

Sweden – Läsglädje för livet (Ljusdal kommunbibliotek)
Switzerland – Buchstart - Né pour lire; Nati per leggere; Naschì per leger (Schweizerisches Institut für Kinder- und Jugendmedien SIKJM)
Thailand – Bookstart (Books for Children Foundation / National Institution of Brain-Based Learning)
USA, Canada, Great Britain – Dolly Parton's Imagination Library (The Dollywood Foundation)
USA – Books for Ownership (Reading is Fundamental, Inc.)
USA – Family Reading Partnership (Family Reading Partnership-Organization)
USA – Reach Out & Read (Reach Out and Read National Center)

Images from Our Bookstart Exhibition
Leipzig, Germany 2013

Long-Term Perspectives

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Wolfgang Tietze

Five Hundred Years of Learning: New Perspectives on Early Literacy in Germany

During this conference, we have learned a lot about early literacy and that literacy, itself, is a somewhat fuzzy term with many possible interpretations. We do not have a direct German translation for the term literacy. Thus, the early childhood community has adopted the English term.

1. Historic Perspective

Early literacy is deeply embedded in our culture. Literacy and early literacy are a central part of our Protestant culture: The Reformation, initiated by Martin Luther 500 years ago, created a change in religious thinking and started a revolution in literacy. God's word and will were no longer to be interpreted and explained, potentially deformed, by a hierarchically organized class of priests, but everybody, every man, every woman and every child, would have direct access to God's word and will.

Every individual was to have this opportunity. This basic concept had two implications. First, God's will, as depicted in the Bible, had to be made accessible in the language of the common people. This was done by Martin Luther's famous translation of the Bible, and all people were to be enabled to read it as early as possible. In that sense, the Protestant Reformation was the first – very comprehensive – early literacy program.

2. Access to the World

Access to the world, its secrets, its basics, its complexity continued to be the guiding principle when, in the mid-17th century, the famous pedagogue John Amos Comenius published his *Orbis Sensualium Pictus* describing the entire world, including heaven and earth. It dealt with the elements, plants, animals and humans, craftsmen and professions, wars and science, virtue and wickedness, policy and wars, religion and punishment up to Doomsday. This illustrated book was a very influential text for about 200 years. Access to the world remained the central issue when, in the 19th century, the big movement of children's books started. Picture books, story books and fairy tales became popular as educational media, providing access to everything that children should learn regarding humanity and nature.

3. Earlier Literacy: Reduction to a Decoding Technique

More recently, early literacy, in its restricted form of early reading, became an issue in the second half of the 1960s during the first postwar reform of the German education system. Stimulated by the German edition of Glenn Doman's 1966 book *How to Teach Your Baby to Read*, a strong movement of early reading developed in our country. Early

reading ("Frühlesen") was considered the entry gate to the world of cognition and knowledge. It was assumed that a child who could read early would have early learning opportunities, develop individual areas of interest and show accelerated cognitive development and more extended knowledge. There were big hopes for early reading, through, among other efforts, public campaigns like the one carried out by *Bild*, the German mass-circulation newspaper, which had "Mama" reading to youngsters one day and "Papa" the next. It also provided guidelines for parents on how to teach their baby to read. Various programs and pilot projects on early reading were implemented with three- and four-year-olds. However, evaluation results were disappointing and indicated that:

- We can drill children to make them read early.
- Children learn to read, but with no impact on general cognitive development.
- It is much easier for children to learn to read at a later age, e.g., as six-year-olds, in formal schooling.
- Effects of early reading fade rapidly.

Early literacy education, as a technique to acquire early technical reading skills, seems to be an ineffective and limited approach.

4. Today's Situation of Early Literacy in Germany

Early literacy is a big issue in the field of early education in Germany today. Due to past findings on the lack of positive outcomes resulting from the teaching of technical literacy skills, language development was emphasized as the basic underpinning for later literacy. German students scored relatively poorly on large-scale international tests measuring school achievement such as

the PISA exams. A relatively high percentage of children in school were found to have inadequate reading skills and underdeveloped language competencies, i.e., they were behind in areas impacting their school career and later life. This was especially the case for children from a migrant background and also for those who were socially disadvantaged.

Based on those and similar findings, all 16 states in Germany established corresponding policies in the last decade. Screening and diagnosis programs were implemented to identify children with language deficiencies. Depending on the diagnostic procedures, between 40% and 60% of the children were identified as being in need of language development support. All states developed and implemented language support programs, which have a number of things in common:

- They are specialized, targeted programs, focusing on children with underdeveloped language competencies.
- They start mainly in the last year before children enter formal schooling.
- Language support is carried out as a special course organized in addition to the normal curriculum at early child education (ECE) centers.
- Language development is carried out as special training by specialized teachers, separate from the daily routines and experiences that children are involved in. In some cases, the teachers come from outside the centers.
- As far as evaluation studies are available, the effects of these programs have been shown to be more or less insignificant, in both the short and the long run. We are facing disillusionment.

5. Re-conceptualization of Early Literacy Programs

Based on these experiences, a re-conceptualization of approaches to support the language competencies of young children is currently taking place in Germany. The magic formula is now "integrative language education and development" in the daily routines of early childhood providers (centers). In this context, some of the states revised their early childhood education policies with regard to fostering language competencies in children. The federal government has launched a huge program involving 4,000 ECE centers throughout the country and based on a political agreement between the federal government and all state governments. This program is based on various assumptions, including the following:

- Language is learned by immersion in a rich language environment, i.e., in the day to day context of children in their homes and in their ECE centers.
- It is unrealistic to expect that language competencies can be acquired in specialized contexts apart from the daily routines and experiences that children are involved in.
- Deliberate support for children to help them develop language competencies needs to start early in life.
- Children with a migrant background especially need early language-learning support in ECE centers.
- If children are to acquire good language competencies, teachers need to act as excellent language models.
- Teachers are asked to create a "language environment" in the ECE centers, in which children experience language, reading, stories, books and communication as a central part of their environment.
- Telling stories, "reading" books with

children, looking at picture books and story books and strengthening the communication among children and between children and adults are not just technical issues, but are loaded with values about what is considered important in our culture.

In a way, the development of early language competencies and early literacy is not technical language training, but is a comprehensive approach to understanding the world in a basic sense and to preparing children for meaningful communication in the world. In that sense, we are close to the very first, religion-based, early literacy program that appeared along with the Protestant Reformation. Today's programs are also designed to give children access to what society considers fundamentally important, even if this is no longer defined by religion. Early literacy is an early introduction to our culture. Early education is literacy education or it isn't education at all.

Eric A. Hanushek

The Economic Relevance of Early Childhood Development

Prof. Dr. Wolfgang Tietze

Prof. Dr. Wolfgang Tietze is professor emeritus at the Free University of Berlin, Germany. He is specialized in early childhood education. His research interests include assessment procedures and strategies for developing and assuring quality in early childhood environments and the effects on child outcomes in various domains, including language, communication, cognition and social competence.
Together with his team, he created a national catalogue of quality criteria for early childhood provisions, nationally acknowledged procedures for developing quality in provisions and a system applicable nationwide for assuring quality ("quality seal" for early childhood provisions). He has conducted various large-scale studies at the national level and has served as a leading researcher in cross-national studies (European Child Care and Education Study).
He acted as a member of the national panel, appointed by the German government, for preparing the 12th *National Report on Children and Youth in Germany* (report to the national parliament). He is also a consultant to various education agencies on a regular basis.

Considerable evidence has accumulated about the importance of earlier childhood education, particularly for disadvantaged students who have a less complete learning environment in their home. At the same time, simply knowing that early childhood education has valuable learning effects does not mean that they justify any particular policy interventions. The efficacy of such interventions would depend on the balance of the costs and benefits of any programs.

The literature on early childhood education is both broad and rapidly expanding. Importantly, it is the subject of research across a variety of disciplines, and the focus of this research varies widely. There are clearly many noneducational outcomes of early childhood programs, but this discussion will focus narrowly on the academic components and, within that, on the development of cognitive skills.

The existing research on early childhood programs provides some clear findings but also indicates a number of uncertainties. Overall, the economic impacts of early childhood programs depend on the size of the population affected by any program, the magnitude of any effect on learning and the lasting impacts of the program. These

matters clearly depend on the dimensions of any specific programs. There are some relevant research findings that are useful in projecting the impacts of any program, but there are also elements that are currently unknown.

The currently available research, much of which comes from programs in the United States, indicates that early childhood programs can have significant impacts on disadvantaged children, but there is little evidence of impacts on more advantaged students. As such, they offer a potentially powerful tool for dealing with achievement gaps across society and for leading to larger educational equity.

At the same time, the available evidence provides limited guidance about the structure of any programs. The clearest evidence on achievement impacts of programs comes from demonstration programs that are not viable models for larger on-going programs. Thus, new developments will necessarily have to incorporate a substantial research and evaluation component.

Additionally, one largely ignored aspect of early childhood programs is how they integrate with school policies in primary and

secondary schools. A primary value of early childhood programs comes from ensuring the adequate preparation of children for entry into formal schools. If the schools see an altered flow of entrants, they must necessarily modify their programs to some extent in order to make use of the earlier education.

Existing Preschool Programs
There is substantial coverage of early childhood programs for both three- and four-year olds across the OECD, and this coverage has been expanding in recent years. At the same time, there is considerable variation across countries in programs – reflecting both cultural differences and different willingness to provide fiscal support.

Figure 1 shows the country differences in enrollment for younger children, while Figure 2 shows the same for four-year-olds. The range is quite astounding. For three-year-olds, Switzerland, Turkey and Australia provide virtually no programs, contrasting sharply with France, Spain and Belgium, which have essentially universal coverage.

By age four, coverage increases noticeably, with only Turkey continuing with minimal coverage. But even for four-year-olds, the OECD average participation rate is just over three-quarters.

Program Effects
We know the most about a series of model programs that have been extensively studied. The Perry Preschool Program and the Abecedarian Program have rightfully received considerable attention.[1] These programs are small (less than 75 subjects), old (conducted in the 1960s) and expensive. At the same time, they have been evaluated using ran-

domized trials and the subjects have been followed over a long period of time. The resulting picture is one of significant effects and outcomes leading to large benefit-cost ratios. Many of the benefits have been noncognitive, seen through reduced criminality and other important social outcomes (e.g., Gramlich 1986; Belfield, Nores, Barnett and Schweinhart 2006). The measured cognitive effects in these programs have, however, been relatively small.

There is nonetheless a broader body of literature on the impacts of early childhood programs. While a little more difficult to summarize, the broad summary is that the programs considered are much larger in scale involving operational programs, they are less intensive (less expensive) than the model programs, and the evaluations are much more recent. The evaluations are less reliable, generally because of difficulties in finding an adequate control group. Moreover, the evaluations have been largely restricted to educational outcomes measured by standardized assessments.

Three overall results come from reviewing these programs. First, the effect sizes for cognitive outcomes average about 0.3 standard deviations (s.d.). Second, these cognitive differences tend to fade over time. Finally, the positive results apply just to disadvantaged children with little or no impact on more advantaged children.

These program impacts can be translated into impacts on later achievement. While the degree of fade out and the coverage depend on the specific program and country circumstance, it is possible to trace out ultimate impacts using plausible values for each. Figure 3 displays the impact, measured by a

PISA scale, for cases where ultimate fade out ranges none to 70% and where the population benefitting from the program ranges from 20% to 60%.

At the least impactful (70% fade out and 20% benefitting), the program would lead to two PISA points, or an effect size of 0.02 s.d. At the other end of the simulations in Figure 3, with no fade out and 60% benefitting, there would be an effect size of 0.17 s.d.

It is possible to translate these points into economic impacts. One approach is to look at the impact on individual earnings into the future. One standard deviation in achievement will increase individual lifetime earnings by an estimated 15%. Using this expected impact, the present value of gains from early childhood programs in the United States would range from $3,000 for an effect size of 0.02 s.d. to $30,600 for an effect of 0.17 s.d. The present value of an increase of slightly over five points of improvement would exceed the average spending on K-12 education of $10,000 per student.

An alternative way to value the improvements from early childhood comes from the aggregate impact on the national economy. Past research has also shown that the quality of a country's labor force as measured by cognitive skills is directly related to long-term growth rates (Hanushek and Woessmann 2012).

Table 1 projects the impact of differing numbers of PISA points on growth in GDP for the United States. These gains can be measured against what can be accomplished from early childhood programs (as seen in Figure 3). For example, a gain of 25 PISA

points would by past growth relationships add $45 trillion in present value. As we saw, early childhood programs have the possibility of providing 2 to 17 PISA points, which can cover a substantial portion of the 25 PISA points. Similarly, closing the US gap in black and Hispanic achievement would yield a $49 trillion gain in GDP. Early childhood programs, if aimed at black and Hispanic children, could close 12% to 40% of the gaps.

Some Discussion
The simple conclusion from the prior estimates is that the potential economic gains of expanded and improved early childhood programs are huge. Moreover, these gains come just from the increases in cognitive skills. Any improvements in noncognitive skills would be on top of these.

There do remain substantial questions that are not addressed here. These calculations build on an aggregate set of estimates from existing programs. The characteristics of these programs are not really well specified. Neither are the appropriate ways to introduce such programs or to pay for them.

They also do not consider that the fade out from these programs might be directly related to other policies. For example, improved K-12 schooling that built more appropriately on added skills from early childhood programs might reduce the amount of fade out.

In any event, the magnitude of potential gains is sufficient to justify expanded public actions to design and implement early childhood programs for disadvantaged youth.
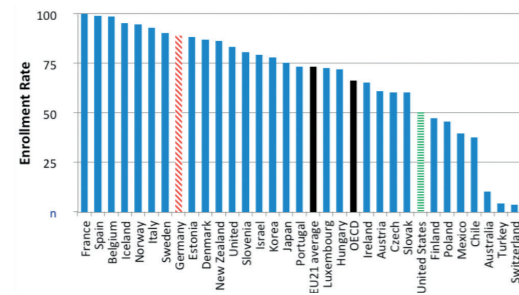
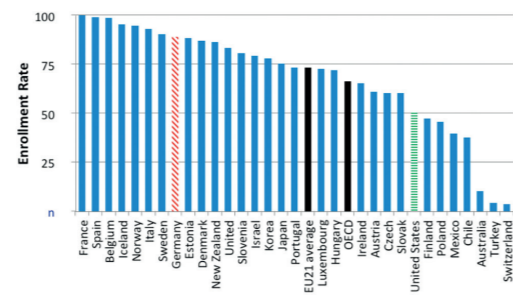Fig. 1 – Enrollment Rates of Three-Year-Olds in OECD, 2010

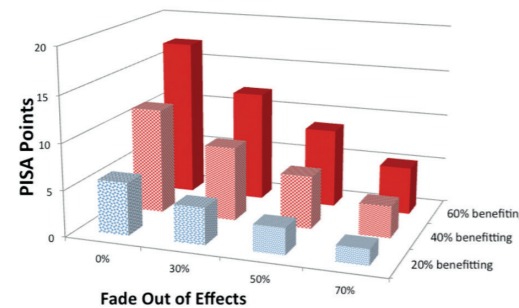Fig. 2 – Enrollment Rates of Four-Year-Olds in OECD, 2010

Fig. 3 – Plausible Impacts of Early Childhood Programs
by Fade Out and Coverage (PISA Scale)

Achievement Gain	Present Value ($ trillion)	Percent of Current GDP	Proportion Gains from Preschool
25 PISA point gain	$44	268%	10-65%
Close black/Hispanic gaps	$49	289%	12-40%

Table 1 – Impact of Achievement Gains on US GDP

Notes

[1]Both have been extensively analyzed. For the Perry Preschool Program, see, for example, Barnett (1992) and Schweinhart et al. (2005). For Abecedarian, see, for example, Campbell et al. (2001).

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Ulrike Hanemann

Early Literacy: A Stepping Stone for Lifelong Learning

Introduction

Leading experts from around 35 countries met in Leipzig, Germany, from 12 to 14 March 2013 at the International Expert Conference "Prepare for Life! Raising Awareness for Early Literacy Education". They gathered to share their experiences, research evidence and viewpoints on the relevance of early literacy in the first years of childhood, and to discuss how early reading can be best promoted among different target groups and implemented in a variety of contexts. The three days of intensive and inspiring debate on the trends, issues, success factors and enabling conditions of early literacy education resulted in a set of recommendations: the "Leipzig Recommendations on Early Literacy Education".

During the conference many aspects of the immense impact of early literacy education and learning on children's life prospects were discussed.
Far fewer of today's young people and adults would be affected by poor reading skills if the importance of early childhood for literacy had been recognised and taken seriously earlier. But even if good early childhood education programmes lay a strong foundation for a successful life path for the next generation, concentrating only on the first years would not break the intergenerational cycle that reproduces low levels of literacy.

This paper reflects on two crucial aspects: early literacy learning as a stepping stone for a lifelong learning process, and early literacy education as a building block within lifelong learning systems. The main point, however, is to present evidence that supports the need to promote effective learning families: Each child is a member of a family, and within a learning family every member is a lifelong learner in both their own right and in the intergenerational combination of encouragement and involvement that arises from all family members' learning activities. In the long run, such an integrated approach is more likely than individual measures to break the intergenerational cycle of illiteracy and develop a culture of learning in disadvantaged families and communities.

The first section discusses literacy as a right and a foundation of lifelong learning. Next, literacy challenges are analysed within the global context. The third section is an attempt to connect the dots to break the intergenerational cycle of illiteracy. The final section proposes some action as stepping stones to early literacy within the perspective of lifelong learning.

1. Literacy as a Right and Global Commitments

Literacy is an essential part of the basic right of every individual to education, as recognised in the Universal Declaration of Human Rights (UN 1948). As an intrinsic, inalienable and indivisible human right in and of itself,[1] literacy is instrumental in the pursuit of other human rights. As a social practice, literacy has the potential to enhance people's capability and agency as key elements in the pursuit of freedom (Amartya Sen)[2], and to empower them to interpret and transform their life realities (Paulo Freire)[3]. The question is not so much what literacy can do for people, but rather what people can do with literacy. The way in which literacy is acquired and how it is used determine its value for the learner.

Literate Individuals and Literate Societies

UNESCO's Education for All (EFA) goals and those United Nations Millennium Development Goals (MDGs) which are concerned with education (discussed below) are expressed in terms of individuals. However, education – and literacy as part of it – does not concern only individuals (as a rights framework alone might suggest). It also has a critical social dimension. The types of educational inputs (e.g., material and human resources), processes (e.g., curricula, teaching and learning strategies) and outcomes (e.g., reading, writing and numeracy skills) that are relevant to individuals are very much influenced by social context. Moreover, the degree to which a society enables, promotes and sustains educational outcomes has an overwhelming impact on the demand for, and the value of, these skills.

A "literate society", then, is more than a society with high literacy rates; rather, it is one in which important aspects of social, economic and cultural life are based on written communication and text. The acquisition and use of literacy skills should enable citizens to actively participate in society and its institutions. Those who lack the necessary reading and writing skills are left behind. Therefore, the creation of literate societies – a highly context-specific notion – involves enabling individuals, families and communities ("groups") to acquire, develop, sustain and use relevant literacy skills. Developing environments in which literacy can flourish and where its value is recognised by individuals, families, (pre)schools and communities is as important as enabling children, young people and adults to acquire and develop literacy skills through related programmes, learning opportunities or schooling.

Although the "eradication of illiteracy" seems to be a powerful slogan for raising the profile of literacy at policy level, it also potentially misleads decision makers in their efforts to choose the best way to address the literacy challenge. Declaring a country to be "illiteracy free" involves taking the risk of accepting that the skills level of a proportion of the population is too low to equip them for independent further learning; it also risks rendering invisible literacy challenges arising from new and changing demands over time. Consequently, the goal should not be to "eradicate illiteracy" but to ensure the continuous strengthening and upgrading of literacy abilities for all, in order to create more and better opportunities for families, communities and societies, ultimately "creating a fully literate world" (UIL 2010, 6).

International commitments: EFA and MDGs – time to deliver on promises and act!
In 2000, the international community met at the World Education Forum in Dakar, Senegal, to agree upon the Dakar Framework for Action – Education for All (UNESCO 2000). Six key measurable education goals were identified which aim to meet the learning needs of all children, young people and adults by 2015.

Education for All (EFA) is a comprehensive approach to basic education.[4] The necessity of developing literate societies provides a link between all six EFA goals. Literacy is simultaneously an outcome (e.g., reading, writing and numeracy), a process (e.g., taught and learned through formal schooling, nonformal programmes or informal networks and communication) and an input (paving the way to further cognitive skill development, participation in other learning opportunities throughout life, continuous education, etc.). All six EFA goals are interconnected and **literacy cuts across** all of them:

  EFA Goal 1: *Early childhood care and education* is laying strong foundations for later learning and addressing disadvantage through early reading and pre-literacy development programmes.
  EFA Goal 2: *Universal primary education* is providing children with the basic skills of reading, writing and numeracy.
  EFA Goal 3: *Youth and adult learning needs* are being met through equitable access to adequate programmes that include enhancing literacy, numeracy and life skills throughout adulthood and later life.
  EFA Goal 4: *Adult literacy levels* are being increased by scaling up and reaching out with relevant literacy provision to all

young people and adults who lack the basic skills.
  EFA Goal 5: *Gender parity and equality in education* is being addressed through measures to narrow existing gender gaps in literacy at all ages.
  EFA Goal 6: *All aspects of educational quality* are being improved to ensure that recognised and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills.

The six EFA goals contribute to the global pursuit of the United Nations' (UN 2000) eight **Millennium Development Goals (MDGs)**, especially MDG 2 on universal primary education and MDG 3 on gender equality in education, by 2015. The MDGs were officially adopted in 2000 by all 193 United Nations member states and at least 23 international organisations who have agreed to achieve these goals by the year 2015.
  MDG 1 Eradicating extreme poverty and hunger
  MDG 2 Achieving universal primary education
  MDG 3 Promoting gender equality and empowering women
  MDG 4 Reducing child mortality rates
  MDG 5 Improving maternal health
  MDG 6 Combating HIV/AIDS, malaria and other diseases
  MDG 7 Ensuring environmental sustainability
  MDG 8 Developing a global partnership for development

Existing evidence on the **benefits of literacy** shows that literacy education is contributing to the achievement of most, if not all MDGs, when linked to – or embedded in – other basic and life skills training. For example, a study carried out in 32 coun-

tries found that literate women were three times more likely than nonliterate women to know that a healthy-looking person can have HIV, and four times more likely to know the main ways how to avoid AIDS (UNESCO 2005, 101). A growing body of longitudinal research evaluating the health benefits of literacy programmes points to the same impact as that of education, and in some cases to an even greater impact. For example, infant mortality was lower, by a statistically significant amount, among Nicaraguan mothers who had participated in an adult literacy campaign. Bolivian women who attended literacy and basic education programmes displayed gains in health-related knowledge and behaviour, unlike women who had not participated in such programmes (ibid., 141-142). Improving literacy levels thus has potentially high social benefits, such as increased life expectancy, reduced child mortality, improved family health, changes in reproductive behaviour and gender equality.

The sparse evidence that exists on the economic benefits indicates that the returns to investment in adult literacy programmes are generally comparable to those from investments in primary education; it also shows a positive impact on individual earnings and economic growth (ibid., 143-145). The empowering potential of literacy can translate into increased political participation and thus contribute to democracy. Evidence from different countries shows that participants in adult literacy programmes are more likely to vote. They voice more tolerant attitudes and democratic values. Further, they demonstrate an increased participation in community action, trade unions and national political life (ibid., 139-140).

In conclusion, literacy is a right and confers distinct benefits, whether acquired through schooling or through participation in non-formal and adult literacy programmes. It is at the core of basic education (EFA), and essential for (human) development (MDGs).

Literacy as a Foundation of Lifelong Learning
As part of basic education, and within a lifelong learning perspective, literacy is the foundation for many further learning opportunities. Literacy learning is an age-independent and continuous activity. The acquisition and development of literacy takes place before, during and after primary school; it takes place in and out of school, through formal, nonformal and informal learning. Therefore, it covers the full spectrum of life-wide and lifelong learning.

The concept of lifelong learning rests on the integration of learning and living – horizontally in life-wide contexts across family, cultural and community settings, as well as study, work and leisure; and vertically over an individual's whole life, from birth to old age. Lifelong learning is thus more than just a linear progression of learning from early childhood education to higher and adult education. It encompasses all learning activities undertaken in formal, nonformal and informal settings, with the effect of changing behaviour, knowledge, understanding, attitudes, values and competences for personal growth, social and economic well-being, democratic citizenship, cultural identity and employability.

In addition to the life phases and the modalities of learning, a third dimension has been added to refer to the different learning domains including literacy and numeracy. An international Learning Metrics

Task Force, coordinated by the UNESCO Institute for Statistics (UIS) and the Center for Universal Education at Brookings, recently released their first report with a proposed Global Framework of Learning Domains. Seven domains were identified to measure learning outcomes: (1) physical well-being, (2) social and emotional, (3) culture and arts, (4) literacy and communication, (5) learning approaches and cognition, (6) numeracy and mathematics, and (7) science and technology (UIS and Center for Universal Education at Brookings 2013). This does not yet reflect the progression from simple to complex skills levels, but it does illustrate how complex the notion of literacy as a foundation of lifelong learning has become.
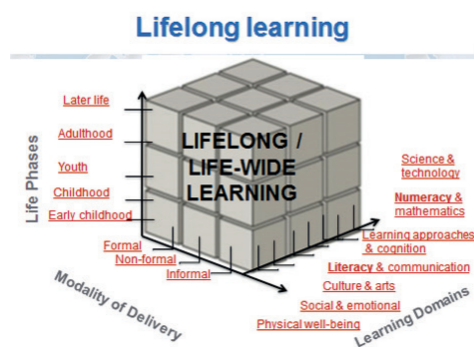
Source: Hanemann 2013

The ability to read, write and operate with numbers in a world that is increasingly dominated by the written word, both in print and in digital forms, has become an essential requirement for people to actively participate in society. Changes in the economy, the nature of work, the role of media and digitisation, and society as a whole have made literacy much more important than in past decades. Increasing amounts of information (including online material) and the

need to select and use knowledge from a range of sources particularly challenge those with poor foundational literacy skills. There are people at risk of being excluded from new and emerging possibilities of using information and communication technologies, and others, for different purposes. At a time of particular economic and social volatility, with patterns of living becoming more complex and less predictable, the ability to continuously acquire new knowledge and upgrade one's skills through independent learning has become critically important. Young people and adults struggling with reading, writing and operating with numbers are more vulnerable to poverty and social exclusion, unemployment, demographic changes, displacement and migration, and man-made and natural disasters. Literacy is crucial for adults' social and economic well-being – and for that of their children.

A shift can be observed towards teaching and learning reading, writing, language (written and spoken communication) and numeracy as part of a wider concept of key competencies, human resource development and lifelong learning. Therefore, literacy can no longer be perceived and dealt with as a stand-alone skill whose development is completed within a short time and is then over and done with. It should rather be seen as one component of a complex set of foundational skills (or basic competencies) which require sustained learning and updating in a continuous process.

**Increased Awareness
of the Literacy Challenge**
There are indications that the literacy challenge is receiving increased attention. The United Nations declared 2003-2012 as the UN Literacy Decade (UNLD). UNESCO then

launched the Literacy Initiative for Empowerment (LIFE, 2006-2015) in support of the objectives of the UNLD and with a focus on those 36 countries in the world that face the largest literacy challenge. In 2009, at the Sixth International Conference on Adult Education (CONFINTEA VI), 144 UNESCO Member States committed to redoubling efforts to achieve EFA Goal 4, "with the ultimate goal of preventing and breaking the cycle of low literacy and creating a fully literate world" (UIL 2010, 6). All these international initiatives and commitments are contributing to the achievement of EFA and the MDGs.
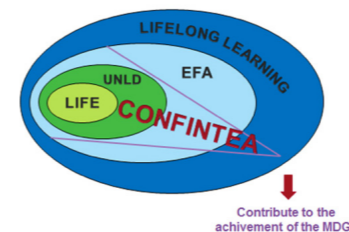
Source: Hanemann 2013

National and international surveys to determine levels of reading and numeracy skills of children, young people and adults have been causing concern,[5] and in addition to international organisations, some governments have recently begun to devote increasing attention to literacy.[6] In 2011, the European Commission – under the chairwomanship of Princess Laurentien of the Netherlands – established a high-level expert group to analyse the literacy challenge in Europe and come up with policy-relevant recommendations. The final report was launched last year in the context of the International Literacy Day in Cyprus (European Commission 2012). It offers a number of recommended actions. One of

these recommendations is to develop visions and strategies for literacy development with wide ownership across ages by adopting literacy strategies with a lifelong time-span, stretching from early childhood to adulthood.

**2. Global Context and the Literacy
Challenge: Where Does the World Stand?**
With just a few years to go until the deadline for the six EFA goals that were set in Dakar (2015), it is now urgent to ensure that the collective commitments made by 164 countries are met. On current trends – which are monitored by the EFA Global Monitoring Report team hosted by UNESCO – the promise made in Dakar will be broken for millions of children, young people and adults, unless governments act with greater urgency. Unfortunately, in 2012 the *EFA Global Monitoring Report* (UNESCO 2012) showed that progress towards many of the goals is slowing down, and that most EFA goals are unlikely to be met. The most neglected goals are EFA Goal 1 and EFA Goal 4.

The goal of early childhood care and education **(EFA Goal 1)** should be at the centre of EFA and broader development agendas. However, less than half the world's children receive preprimary education. Progress has been slowest in low-income countries, where only 15% of children received preprimary education in 2010. Participation in preprimary education is low and inequitable, with children from poor households least likely to attend. In other words, the groups that would benefit the most from preschool education are missing out the most (ibid.).

On current trends, the goal of universal primary education **(EFA Goal 2)** will be missed by a large margin. Among the world's 650

million children of primary-school age, around 61 million are out of school – with Nigeria heading the list, with one in six of the world's out-of-school children (in terms of absolute numbers, a total of 10.5 million). A further 71 million of lower-secondary school-age children or adolescents are not in school. In many countries lower-secondary education is now part of "basic education", the minimum education level to which each citizen is entitled according to many constitutions (compulsory education). 120 million children do not reach grade four, and an additional 130 million are in school but fail to learn the basics: reading, writing and numeracy (ibid.).

Twelve years after the EFA goals were established, the international community is only now coming closer to agreeing on a practical, coherent set of internationally comparable indicators to measure skills development of youth and adults **(EFA Goal 3)**. Therefore no data will be available in time to measure Goal 3 adequately before 2015.

Most countries will miss the goal to improve levels of adult literacy **(EFA Goal 4)**, some by a large margin. There were still around 775 million adults who were reported to be unable to read or write in 2010. Most of them are women and live in South and West Asia, and over one-fifth in sub-Saharan Africa. Almost three-quarters of adults who are nonliterate live in just ten countries (ibid.). An important question is whether these data present the full extent of the challenge. Adults are asked in household surveys whether they can read or write (giving "yes" or "no" as a response) rather than having their abilities put to the test. Direct approaches to assessing adult skills provide more reliable data and richer profiles of skills levels. Direct

assessments indicate that as many as one in five adults in high-income countries (around 160 million adults) are unable to use reading, writing and calculation effectively in their day-to-day lives (ibid.). For example, the Level One (leo.) study conducted in 2010 in Germany showed that 7.5 million adults aged 18 to 64 are affected by "functional illiteracy" (UHH 2010).

The achievement of gender parity and equality in education **(EFA Goal 5)** is being challenged by 68 countries that have not achieved gender parity in primary education, and girls are disadvantaged in 60 of them. International learning assessments indicate that girls perform better than boys in reading at both primary and secondary school level, and the gap is widening. Boys have an advantage in mathematics in most countries, although there is some evidence that this gap may be narrowing (UNESCO 2012).

Many children around the world attend school but do not learn anything there **(EFA Goal 6)**. According to estimates, at least 250 million primary school age children either do not reach grade four or, if they do, fail to attain minimum learning standards. Recent analysis of household surveys for the *EFA Global Monitoring Report 2012* (UNESCO 2012) shows that in low- and lower-middle-income countries, far more children than expected are completing primary school without becoming literate. In Ghana, for example, over half of women and over one-third of men aged 15 to 29 who had completed six years of school could not read a sentence at all in 2008 (ibid.).

The Intergenerational Cycle of Illiteracy
One of the key conclusions of the *EFA Global Monitoring Report 2012* was: "EFA will not

be achieved unless equal attention is paid to all goals. This requires particular attention to those considered the most neglected, including ECCE[7]and adult literacy. Breaking the intergenerational cycle of education deprivation by providing quality education to all children, including in their early life years, and to their parents, is key" (ibid., 8).

The intergenerational cycle of illiteracy is a subject of particular, wide-ranging and growing interest among researchers seeking to understand and delimit the home environment in the context of literacy. The concept of "functional illiteracy" is most often discussed in the context of workplace demands. However, adults who are parents need literacy skills to meet the needs of their children in terms of health, nutrition, safety and education. A parent with low literacy skills may be unable to read or respond to printed notices from a child's school or be unable to follow the instructions on a child's medication. Many parents with low literacy skills experienced such frustration and failure as children that as adults they deliberately avoid literacy-related activities. These parents often communicate their negative attitudes toward literacy and schooling to their children, and thus perpetuate an intergenerational cycle of illiteracy.

In summary, the vicious intergenerational cycle of illiteracy can be described as follows: Poorly educated children are the source of adult functional illiteracy, while functionally illiterate adults are the source of poorly educated children.

Unfortunately, policymakers sometimes ignore the dynamics of this vicious cycle. They opt to focus on childhood education only "to stop illiteracy at the source" at the

expense of funding for youth and adult education. Within this logic, adult literacy education is often characterised as "repair work after the fact". By focusing on children exclusively, the government claims the need to "get it right from the get-go … rather than doing it after the fact".[8]This mistaken understanding of the "source of illiteracy" leads to half-hearted strategies for improving levels of literacy for all. It focuses on each "new" child as the beginning of a new life cycle. However, this focus upon a single life cycle fails to recognise the key role that the education of adults plays in the transfer of literacy – learning, using and sustaining it – from one generation to the next. The potential for developing literacy skills begins before birth in the dispositions, knowledge, language, literacy and parenting skills of children's parents. Depending on how many children adults have, they are engaged in the literacy development not only in one life cycle but potentially in multiple life cycles. The term "adults" refers to different generations (parents of parents) and types of caregivers.

Misconceptions are Reinforcing this Vicious Cycle
In their findings on the current literacy situation in Europe, the European Commission's high-level expert group on literacy chaired by Princess Laurentien of the Netherlands came across some widely shared misconceptions about the nature, size and scope of different dimensions of illiteracy. These often prevent the identification of structural solutions to the literacy challenges. With the aim to dispel those misconceptions, the experts elucidated the existing facts. The following table provides some examples of misconceptions that contribute to the reinforcement of the intergenerational cycle of illiteracy.

MISCONCEPTIONS	THE FACTS
"Schools are responsible for teaching children to read and write."	Schools have an important role, but are not the only ones responsible. A broad range of actors shape literacy development, from parents and peers to health services and others.
"Improving struggling readers' skills is too time-consuming, too difficult and too expensive to be worth the effort."	Programmes aimed at improving struggling readers' skills have a high rate of success, and are extremely cost-effective.
"Parents have no influence on their children's literacy development after the early years."	Parents' attitudes and literacy practices have a very significant influence on their children's literacy development, all the way through secondary school. Interventions to improve parents' support skills have a large impact on child literacy.
"It's too late to do anything about literacy problems after children finish primary school."	Millions of children entering secondary school do not read well enough to do well in school. With specialised support, these young people can develop good or even excellent literacy skills.

Source: European Commission (2012, 30)

Evidence from Research

There is much evidence that indicates the strong relationship between parents' education levels and their children's achievement in literacy. More recent research studies have also confirmed the importance of the intergenerational transfer effects of this relationship. According to a research study from the UK (Feinstein et al. 2004), the intergenerational transmission of educational success is "a key driver of the persistence of social class differences and a barrier to equality of opportunity" (ibid., iii). Parental beliefs, values, aspirations, attitudes and well-being as well as parenting skills in terms of warmth, discipline and educational behaviour "are all major factors in the formation of school success" (ibid., iv). The researchers conclude that there are "substantial benefits of education that accrue to individuals and society in terms of what education enables parents to pass on to their children" (ibid., v).

It is not only parents' education levels that can have an intergenerational transfer of literacy effect. Their measured levels of basic skills also influence this transfer. Another research study conducted in the UK reported that the impact of parents' basic skills on children's cognitive outcomes is positive and highly significant. Even if other factors are influencing the child's development, such as parental qualification levels and parental ability, this positive impact of parents' basic skills on their children's cognitive skills dominates. The researchers conclude that the intergenerational transfer of basic skills is always significant and that it is particularly high for parents with low levels of qualifications (DeCoulon et al. 2008).

If language skills are maximised during the sensitive period of early childhood, children can be effective thinkers, talkers, readers and writers in their entire life. In particular, the research findings support that children whose preschool years have been spent maximising learning opportunities from parents and caregivers will be in the best position to succeed in their schools and families (Lybolt and Gottfred 2003).

Long-term studies conducted in the United States to determine the cost-beneficial effects of educating children in early childhood education programmes suggest that a significant percentage of the benefits produced by these preschool programmes might result from the effects of their parenting and literacy education activities for adults, since many of the evaluated early childhood education programmes also provide adult education and parenting classes (Lynch 2004). Further evidence from the US also strongly suggests that much, if not most, of the success of early childhood preschool programmes depends on adult education to improve parental skills and knowledge (Morrison et al. 2005).

In 2011, independent experts published a report of their study on parental support initiatives to improve literacy of children, which had been commissioned by the European Commission.[9] This study (Carpentieri et al. 2011) concludes that involving families in literacy programmes is essential for increasing the literacy levels of both children and adults. The report provides an overview of existing research and evaluates strategies, policies and initiatives in the field of family literacy, in particular those targeting disadvantaged families. One of the key findings is that family literacy programmes are highly cost-effective, both in improving child literacy and improving parental support skills. This conclusion is based on six recent meta-analyses of family literacy interventions, all of which found positive effects on child literacy development.

According to the study, four key factors shape the long-term success of family literacy programmes: funding, programme quality, partnerships and research-based evidence of success. Some analysed programmes also cited media support as a fifth factor of sustainability. On the other hand, in a number of countries many good programmes, which took considerable time and resources to develop, have suffered or disappeared because of their dependency on short-term grants which require frequent renewal and are subject to numerous external policy pressures (or changes).

The report also underlines the importance of comprehensive policies addressing all aspects of (early) childhood. Family literacy tends to be viewed in terms of projects, rather than as an integral part or complementary element in the education system. That is why there is a lack of consistent and sustainable family literacy policy (with one exception: the Netherlands) (Carpentieri et al. 2011).

In sum, research findings from around the world confirm the key role that the educa-

tion of adults plays in the transfer of – and learning, using and sustaining of – literacy from one generation to the next. There are many examples of how parental support initiatives have enhanced and improved the literacy skills of children.

3. Connecting the Dots to Break the Intergenerational Cycle of Illiteracy

From a policy perspective, illiteracy is often boxed as a school education issue, or an issue of young people leaving school without a certificate and without sufficiently mastering the basic reading, writing and numeracy skills, or as an adult education issue. This fragmented or reduced approach simply does not make sense when the individual is the starting point, the centre, of our thinking. Every adult once was a child, and a child will grow to become a young person and an adult. He or she will in turn have children. It is therefore more logical to work with the concept of the literacy chain and an intergenerational approach to addressing literacy challenges.

This means that policymakers need to consider a person's life and determine when, how and where that person is or should be in touch with reading and writing. A whole range of life circumstances provides opportunities to invest in literacy. **Policy has to establish the links and connect the dots**, joining up the literacy chain aiming to prevent and reduce illiteracy. Learning and education starts with birth and continues throughout life.

It is important that policymakers recognise the importance of early literacy and youth and adult education as solid foundations for lifelong learning by resourcing it adequately. Research shows that literacy is a

family matter and children absorb parents' values. If they grow up in homes where literacy is not practised, they believe that it is not important. It is the continued education at home, the modelling of parents themselves reading, and most importantly, their reading to children that influence a child's love of reading. Adults who strengthen their own skills serve as role models for literacy development in their children's lives. Given the important intergenerational effects of parents' education levels on the achievement of their children, and given the importance of the home environment in the acquisition of literacy skills and the role played by parents in this process, it is necessary to recognise that adult education should be valued as much as early childhood education. Both complement and reinforce each other. This will help to stop the vicious intergenerational cycle of functional illiteracy at both ends. In addition, evidence also points to the need of guaranteeing the fulfilment of a child's right to educated parents. This requires providing parents with learning opportunities that help them to better support their children's learning.

Adults often mention an inability to help their child with reading or homework as a reason for entering literacy programmes. Family or intergenerational literacy programmes, where parents and children develop their literacy skills together, take advantage of this drive. Such programmes have been shown to be effective in improving child literacy, the capacity of parents to support their children and parental motivation to engage in learning (Carpentieri et al. 2011).

Therefore, all national child literacy strategies should include a family literacy

component. A particular focus should be on families with multiple disadvantages, which require integrated strategies. Current institutional structures tend to encourage either child-focused, or school-focused, or youth-focused or adult-focused approaches. Therefore, it will be important to establish cross-departmental (ministerial) institutions or relatively autonomous organisations to connect the dots and support the full range of potentially valuable family literacy and learning interventions.

The achievement of literacy for all requires working simultaneously on at least five complementary fronts:
1. Laying **strong foundations** for later learning and addressing disadvantage through good-quality **early childhood** care and education programmes
2. Ensuring **universal good-quality basic education** for all **children** (in formal or nonformal settings)
3. Scaling up and reaching out with **relevant** literacy provision to all **young people** and **adults**
4. Developing **literacy-rich environments** and a **literate culture** at the local and national level
5. Dealing with the **root causes of illiteracy** (mainly poverty, societal injustice and all kind of disadvantages) in a deep **structural** manner

This integrated strategy reflects the interconnected nature of the six EFA goals. It also calls for sector-wide – and even cross-sectoral – approaches to promote literacy for all. The success of such literacy policies and strategies is directly contingent upon the development of literate environments that will sustain and support the further development of newly acquired skills.

The Importance of a Literate Environment

It is crucially important to create a literate environment involving various written elements that are present in the contexts where each individual conducts their everyday life activities, one that also takes into account related opportunities to use, sustain and further develop literacy skills.

Family literacy and learning is one possibility of pulling the different strings together, to work on all complementary fronts simultaneously, and connect the dots. Family literacy and learning should be situated within a lifelong and life-wide perspective:
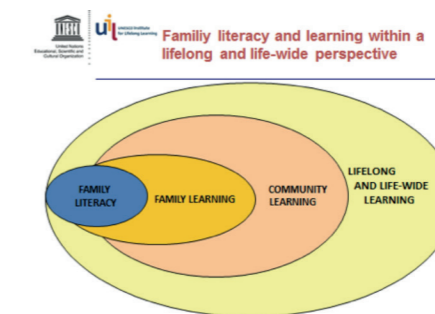
Source: Hanemann 2013

Developing a culture of learning in the family should be a major goal of national lifelong learning strategies. This involves learning activities addressing the child only (e.g., school learning), the child with parental involvement (e.g., parental engagement and involvement in early years and school learning), the adult and child together (e.g., learning through joint activities at home or in the neighbourhood, intergenerational family learning courses or cultural activities) and the adult only (e.g., adult-only family learning or parenting courses, adult education classes, apprenticeships, learning at the workplace or through volunteering).

In such a **learning family**, every member is a lifelong learner in their own right. However, it is much more than individuals engaged in learning activities: "The intergenerational combination of encouragement and involvement in each other's learning activities by all family members raises aspirations and creates a long-term change in the culture and patterns of learning" (Lamb 2009, 1). The impact of the combined factors of the children's and the adults' learning is far too important to be lost between policy areas and institutional responsibilities. Therefore, it is necessary to promote a greater understanding of the concept of the learning family as a core element of lifelong learning systems. And this understanding should lead to policy changes to ensure this happens.

4. Stepping Stones to Early Literacy

As already mentioned in the introductory section of this paper, I would like to focus on two crucial aspects: early literacy learning as a stepping stone for a lifelong learning process, and early literacy education as a building block within a lifelong learning system.

Achieving real improvement in literacy – both early literacy and literacy for all – requires policymakers to establish the necessary links and connect the dots to break the intergenerational cycle of illiteracy. Strong political will and a sense of ownership are necessary to develop coherent literacy strategies and forge cooperation across society and government.

The principles that should guide the development of visions and strategies for effective literacy include the following:
- **Pursuing a rights-based approach:** UNESCO promotes a rights-based ap

proach to literacy and education. Literacy is a core component of the right to education as recognised in the Universal Declaration of Human Rights. By emphasising the intergenerational chain of disadvantage, this was extended to the principle that each child has a right to have educated parents.
- **Addressing inequality:** Related literacy policies and strategies need to address the root causes of marginalisation in education. Inclusive strategies to get hold of difficult-to-reach, vulnerable and excluded children and families sometimes require approaches of "positive discrimination".
- **Flagging gender-sensitivity:** Taking into account existing gender disparities in literacy rates, related strategies need to aim to redress such disparities, among children and adults (boys and girls, and men and women). For example, to close the gender gap in reading, parents, teachers and policymakers should find creative ways to entice boys to read more, including harnessing their interest in digital text. Effective parenting programmes can also do something for women's empowerment.
- **Promoting holistic and integrated approaches:** Related strategies should not be limited to isolated interventions that address only one aspect of disadvantage. Rather they should be designed to meet the needs of children and families deprived of education in holistic and integrated ways.

In addition, early literacy should be placed within the broader frameworks of international commitments such as EFA and the MDGs, and related strategies should be conceived as building blocks of lifelong learning systems.

The following **action points** – or **stepping stones** – result from research evidence, good practice and lessons learnt from past experience:
- There is a need for continuous advocacy for policymakers at all levels to increase awareness of both the existing literacy challenge and the links that have to be established.
- Society as a whole needs to be mobilised to feel a shared responsibility for promoting literacy.
- In order to put early literacy to work, there is a need to design comprehensive policies, which address all aspects of childhood and include a family literacy component, or it should be part of a consistent and sustainable family literacy policy. In any case, early literacy education should be seen and dealt with as a b uilding block within a lifelong learning system.
- It is important to ensure the provision of accessible, relevant and high-quality literacy programmes. This also requires addressing diversity.
- Reading and learning must be natural and fun, but this is subject to a culture shift within countries. National programmes require flexibility to meet local and individual family needs.
- Parents, grandparents and other adult caregivers have an active role to play in supporting their children's learning and development. The home environment is crucial. This needs to be addressed by governments at national levels, but the involvement of key players at the local level is also essential.
- Multilingualism must be seen as a resource and harnessed intentionally to strengthen children's and adults' ability to communicate.

- Existing research on literacy should be used to distil lessons and effective practices as well as to identify gaps that need increased policy attention.
- All professionals working with children and families on learning and social care activities should have a shared understanding through initial and ongoing continuing professional development.
- Existing national agencies, organisations and networks – such as Stiftung Lesen in Germany[10] – should be strengthened. Effective coherence between existing activities and a long-term approach to changing the culture of learning needs to be ensured when introducing related policy reforms.

Hence, related policies and strategies should ensure a long-term approach to changing the culture of learning; be comprehensive and well-resourced to allow for sustainability; close social, gender and digital gaps; and reach across departments, ministries and institutions. They should encourage the creation of partnerships for literacy development and promote genuine cooperation and coordination between and among all stakeholders. Further, they should address all aspects of childhood ("childhood-wide") and focus on "multiple-life-cycles" education, in which children are guaranteed a right to educated parents. This means parents should be given an active role to play in supporting their children's learning and development, and at the same time they should be supported in improving their own literacy skills. Policies and strategies need to ensure that the learning needs of adult family members are considered alongside those of the children and that this approach recognises the role of parents as adult learners in their own right (family-related policy

initiatives or strategies). They should also mobilise support of other persons in the home environment and neighbourhood and involve local key-players such as childcare institutions, communities and schools. In sum, adequate policies and strategies are able to mobilise individuals, families and societies for the development of society-wide engagement in and for literacy.

Early Literacy in the Learning Family: A Shared Responsibility

The literacy challenge is too large and too complex an issue for one actor alone. Therefore, it is necessary to develop a sense of shared responsibility among all stakeholders involved. This calls for a coordination mechanism to ensure that accumulated experience is built on and existing expertise used to tackle the challenge simultaneously from different angles and by different stakeholders: child and adult learners, teachers, experts, researchers, governments, civil society, parents' and learners' organisations and the private sector. We need to reach out to new stakeholders and target groups to address the literacy challenge within their structures and day-to-day activities. It is unrealistic to see (pre)schools as the only solution. We need to involve families and communities as an integrated element of this strategy. We have no time to waste.

Notes

[1] "Literacy is not an end in itself. It is a fundamental human right" (UNESCO 1975, 2). (http://www.unesco.org/education/information/nfsunesco/pdf/PERSEP_E.PDF, p. 2).

[2] Amartya Sen is an Indian philosopher and economist whose particular interest is in the choices available to the poorest members of society. He has emphasized the value of literacy in the pursuit of options and opportunities tending to maximize human freedom.

[3] Paulo Freire (1921–1997) was a Brazilian educator and philosopher. His book *Pedagogy of the Oppressed* (1970) became a seminal text in the field of critical pedagogy.

[4] In most countries the term "basic education" refers to primary education or primary and lower secondary education in the national education systems.

[5] For example, the International Adult Literacy Survey (IALS), the Programme for International Student Assessment (PISA) and the Programme for the International Assessment of Adult Competencies (PIAAC), all run by the Organisation for Economic Co-operation and Development (OECD), as well as the National Adult Literacy Survey (NALS) run by the Institute of Education Sciences (IES) in the US, the Skills for Life Surveys commissioned by the government in the UK, the Information et Vie Quotidienne (IVQ) survey concerning information and daily life in France, and the Level One (leo.) study, carried out by the University of Hamburg, investigating adult literacy in Germany.

[6] For example, Brazil, South Africa, India, Indonesia, Bolivia, Venezuela, Morocco and Senegal.

[7] Early childhood care and education.

[8] *The Headline News* page of the National Adult Literacy Database (NALD), 4 October 2006. www.nald.ca

[9] This study was coordinated by the National Research and Development Centre for Adult Literacy and Numeracy (NRDC) at the University of London's Institute of Education, UK. The UNESCO Institute for Lifelong Learning (UIL) in Hamburg, Germany, was part of the research team.

[10] Stiftung Lesen: www.stiftunglesen.de

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Leipzig Recommendations on Early Literacy Education

"Prepare for Life! Raising Awareness for Early Literacy Education", the international conference of experts held from March 12 to 14, 2013 in Leipzig recognized the UNESCO definition on literacy as "the ability to identify, understand, interpret, create, communicate, compute and use printed and written materials associated with varying contexts. Literacy involves a continuum of learning in enabling individuals to achieve their goals, to develop their knowledge and potential, and to participate fully in their community and wider society." A total of 130 participants from over 35 countries developed a set of recommendations on how to improve Early Literacy Education (ELE). The recommendations were compiled during the conference and approved by all of the participants. Members of the editorial team included Wendy Cooling (Founder of Bookstart, UK), Jörg F. Maas (CEO of Stiftung Lesen, Germany), Umesh Malhotra (Co-founder and CEO of Hippocampus Learning Centres, India), Karin Taube (Umeå University, Sweden, and Member of the EU High Level Group of Experts on Literacy) and Duygu Yaşar (Coordinator of Early Childhood Education, Açev – Mother Child Education Foundation, Turkey). Based on the assumption that ELE is a prerequisite for any kind of skill acquisition, it is important to recognize that early literacy is much more than learning the alphabet. Having considered all aspects of ELE, the "Prepare for Life!" conference calls for the full involvement of all relevant partners:

Politicians and Policymakers

- Poor literacy skills lead to impoverished lives and have an economic impact on countries. There is a need to break the vicious circle that passes illiteracy from generation to generation. A central task for politicians and policy makers is to embed ELE programs into their education and social systems.
- Politicians must ensure appropriate and long lasting financial resources for all necessary partners, including, of course, libraries.
- ELE needs a cross-departmental approach, becoming part of the remit of several ministries such as those responsible for health, education and social issues.
- Those involved in ELE policy-making must be aware that many policies will need up to 20 years to embed and develop; thus ELE must be planned independently of legislation periods.

Donors and Fundraisers

- We must make the case to decision makers and funders that ELE is crucial for education and society and that investment will yield long-term returns.

- ELE work must be broadened by strengthening networks and gaining access to target groups through all, even non-educational institutions.
- The economic relevance of early childhood makes it a core interest of companies, corporations, employers' organizations and others in the private sector who may sponsor and support ELE and so invest in children and their education.

Professionals

- There is a need for cooperation and interaction between all involved in ELE whatever the gaps between social and educational levels.
- Early childhood teachers, librarians and other professionals have a huge responsibility; we expect from them the highest standards and in return they must be paid appropriately. Only then can we create, keep and cultivate motivation and quality.
- Libraries play a crucial role in ELE and should be welcoming places giving space and resources to families, including the very youngest children. The training of librarians must reflect their growing role in ELE.
- Training of professionals should adapt new technologies to the needs in early child hood education. This means including research and development of media literacy and digital literacy into training programs.

Volunteers

- Early literacy education is a task for the entire society. The responsibility cannot be passed on fully to families and educational institutions. This means strengthening the role of volunteers.
- The integration of volunteers should not be perceived as an economic substitute for professionals. Their work is complementary and supplementary to formal education.
- The value of volunteers lies in their ability to talk to target groups too often out of the reach of official channels. Honoraries should be trained and supported in their dealings with these hard-to-reach families.
- Volunteers bring personal commiment, and motivation to ELE. Training will strengthen their role and give impact to their work.

Families

- Parents and carers are a child's first teachers, thus their integration into ELE programs is central to their success. Outside institutions alone will not do the job.
- ELE has to begin as early as the birth of the child within the families. The popular understanding of "early" is not early enough. ELE within families should permanently focus on children's perspectives and development and take into account the needs, interests, and developmental level of the child.
- Empowering parents and carers must be a central task in improving literacy. This means raising awareness of themselves as role models in using language, communication and media, and encouraging them to be active in helping their children learn more about language and literacy by talking with their children and reading aloud to them every day.
- Parents should be empowered to provide a home rich in words and stories, and to inspire children to speak, to sing, to play, to move and to communicate. According to the cultural and social parameters in different countries, this should include all media used in the families and their surroundings.

Society

- Reading promotion needs awareness in all parts of society: politics, economy including campaigning at a large scale. Campaigning needs a wide range of partners and a defined benefit for all.
- Networks among health care institutions, social organizations, marginalized groups, churches etc. can provide multidimensional accesses to education, especially for disadvantaged environments.
- Multilingualism is an asset that should be encouraged and celebrated.
- There is a need to widen public knowledge and willingness to take the issues of ELE by using celebrities of stage, screen music and sport as role models.

Researchers

- ELE is an interdisciplinary issue, for which various scientific perspectives need to be cooperating to achieve a common goal: Economics, Neurosciences, Psychology, Linguistics, Educational and Social Sciences, Media Sciences including research on digital literacy.
- Stronger bonds and meaningful connections between research and programs are needed. Research must be applied to overcome the Knowing-Doing-Gap. With regards to intervention, this means that studies of effects have to be directly aimed at the optimization of programs. More evaluations need to be published and to be publicly discussed.
- Investigations of effects on literacy interventions have to be equipped with enough resources and must be implemented over a longer period of time, which then allows the measurement of long term effects. It is only then possible to also prove and to estimate the national economic return of the literacy promotion in this way.

- Research on ELE needs standards within and among countries. This is why studies should deal with comparable indicators. This needs an exchange as much as possible between researchers and practitioners involved in ELE programs.

In conclusion, ELE is everyone's responsibility. It has to start at the beginning of a child's life, to reach out to all children and to lead on to more advanced forms of literacy development. ELE is about our countries' futures.

- Everyone means families, professionals, governmental institutions as well as others without an obvious connection to ELE – such as celebrities, media, volunteers, and non-governmental organizations so as to align efforts of all groups in society. This is in accordance with the recommendations of the EU High Level Group of Experts on Literacy (2012).
- Successful ELE will eventually lead to economic prosperity, to an increase of GDP and more importantly will enrich individual lives. Political commitment is needed in terms of an inclusion in the rhetoric of societal debate, leading to sustainable financial and ideological support (public, private and academic).
- Awareness of ELE needs to be widely disseminated; in accordance with the theory and practice debated at the conference "Prepare for Life! Raising Awareness for Early Literacy Education".

More information about the "Prepare for Life!" conference are available on the website readingworldwide.com.

Appendix

List of Countries and Institutions Participating in the Conference

Argentina
Fundación Leer
www.leer.org.ar

Australia
University of Western Sidney
www.university-of-western-sydney.com

Austria
Büchereien Wien
www.buechereien.wien.at

European Parents' Association
http://euparents.eu

Österreichisches Bibliothekswerk
www.biblio.at

Österreichischer Buchklub der Jugend
www.buchklub.at

Universität Wien
www.univie.ac.at

Belgium
Stichting Lezen
www.stichtinglezen.be

Brazil
Goethe Institute São Paulo
www.goethe.de

Instituto Brasil Leitor (IBL)
www.brasilleitor.org.br

China
Shenzhen Library
www.szlib.gov.cn

Croatia
Public library „Fran Galovic" Koprivnica
www.sisterlibrariesnaple.wordpress.com

Czech Republic
Svět Knihy, Ltd.
www.svetknihy.cz

Denmark
Aarhus Universitet
www.au.dk

Børnehavebiblioteker c/o Kulturstyrelsen
www.kulturstyrelsen.dk

Suddansk Universitet
www.sdu.dk

Egypt
Goethe Institut Kairo
www.goethe.de

Estonia
Tallinna Tehnikaülikool
www.tlu.ee

Finland
Jyväskylan Yliopisto
www.jyu.fi

France
Lire et faire lire
www.lireetfairelire.org

Germany
Akademie für Leseförderung Niedersachsen
www.alf-hannover.de

Börsenverein des Deutschen Buchhandels
www.boersenverein.de

Borromäusverein e. V.
www.borromaeusverein.de

Brinck, Dr. Christine (Journalist and Author)

Büchereizentrale Schleswig-Holstein
www.bz-sh.de

Bundesministerium für Bildung
und Forschung
www.bmbf.de

Deutscher Bibliotheksverband e. V.
www.bibliotheksverband.de

Die Tageszeitung (taz) Berlin
www.taz.de

Eberhard Karls Universität Tübingen
www.uni-tuebingen.de

Dr. Thomas Feist (Politican)
www.thomasfeist.de

Freie Universität Berlin (FU Berlin)
www.fu-berlin.de

Gewerkschaft Erziehung
und Wissenschaft (GEW)
www.gew.de

Goethe Institut München
www.goethe.de

Hochschule der Medien Stuttgart
www.hdm-stuttgart.de

Institut für vorschulisches Lernen
www.ifvl.de

Landesinstitut für Lehrerbildung
und Schulentwicklung Hamburg
www.li.hamburg.de

LitCam
www.litcam.de

Literaturkontor Hamburg
www.literaturkontor-hamburg.de

Max Planck Institute for Brain Research /
Ernst Strüngmann Institute (ESI) for
Neuroscience in Cooperation with Max
Planck Society
www.esi-frankfurt.de

Max Planck Research Group - Reading
Education and Development
www.mpib-berlin.mpg.de

PädQUIS gGmbH
www.paedquis.de

Seiteneinsteiger e. V.
www.seiteneinsteiger-hamburg.de

Staatsinstitut für Frühpädagogik München
www.ifp.bayern.de

Stadtschulamt Frankfurt
www.frankfurt.de

Stiftung Lesen
www.stiftunglesen.de

UNESCO - Institute for Lifelong Learning
www.uil.unesco.org

Universität Bremen
www.uni-bremen.de

Universität Heidelberg
www.uni-heidelberg.de

Universität Mainz
www.uni-mainz.de

Universität Osnabrück
www.uni-osnabrueck.de

Verband Deutscher Zeitschriftenverleger (VDZ)
www.vdz.de

Great Britain
Booktrust UK
www.booktrust.org.uk

Cooling, Wendy (Author)

Dolly Parton´s Imagination Library
www.uk.imaginationlibrary.com

National Literacy Trust
www.literacytrust.org.uk

Scottish Booktrust
www.scottishbooktrust.com

Greece
Goethe Institut Athen
www.goethe.de

India
Goethe Institut Neu Delhi
www.goethe.de

Hippocampus
www.hrfindia.org

Observer Research Foundation
www.observerindia.com www.orfonline.org

Ireland
St Patrick's College
www.spd.dcu.ie

Italy
Centro per la Salute del Bambino
www.natiperleggere.it

Leseforum Südtirol
www.provinz.bz.it

Luxembourg
Initiativ Freed um Liesen a.s.b.l.
www.freed-um-liesen.lu

Malta
Foundation for Educational Services (FES)
www.fes.org.mt

University of Malta
www.um.edu.mt

Mexico
Consejo Puebla de Lectura, Benemérita
Universidad Autónoma de Puebla
www.buap.mx

Goethe Institut Mexiko
www.goethe.de

Poland
Fundacja ABCXXI - Cała Polska Czyta
Dzieciom
www.calapolskaczytadzieciom.pl

Instytut Książki
www.instytutksiazki.pl

Russia
Goethe Institut Moskau
www.goethe.de

Slovenia
Javna agencija za knjigo RS - Slovenian
Book Agency
www.jakrs.si

South Africa
Family Literacy Project
www.familyliteracyproject.co.za

Goethe Institut Johannisburg
www.goethe.de

South Korea
Goethe Institut Seoul
www.goethe.de

Spain
Fundación Germán Sanchez Ruipérez
www.fundaciongsr.com

Sweden
Kulturrådet - Department of Art and Culture
www.kulturradet.se

Umeå University
www.umu.se

Switzerland
Pädagogische Hochschule St. Gallen
www.phsg.ch

Schweizerisches Institut für Kinder- und
Jugendmedien
www.sikjm.ch

The Netherlands
Sectorinstituut Openbare Bibliotheken
www.siob.nl

Stichting Lezen
www.lezen.nl

University of Amsterdam - Kohnstamm
Instituut
www.sco-kohnstamminstituut.uva.nl

Turkey
Anne Çocuk Eğitim Vakfı (AÇEV)
www.acev.org

Koç University
www.ku.edu.tr

Turkish Radio and Television (TRT)
www.trt-world.com

Ukraine
Ukrainian Research Centre for Children's
and Young Adult Literature

USA
Florida State University
www.fsu.edu

Hippy International
www.hippy-international.org

International Reading Association (IRA)
www.reading.org

National Institute for Early Education Re-
search (nieer)
www.nieer.org

Stanford University
www.stanford.edu

Texas A & M University
www.tamu.edu

University of Michigan
www.umich.edu

Venezuela
Asociación Civil Banco del Libro
www.bancodellibro.org.ve

Goethe Institut Caracas
www.goethe.de