



William Caspar Graustein Memorial Fund

Early Literacy Framing

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Introduction

Early literacy is a vast and deep field addressed in overlapping domains such as early childhood, k-3, child development, and reading and writing. From discussions of brain development to debates about how literacy develops, (e.g. sequentially or holistically), to calls for specific interventions and policy actions, the literature can be approached and used in various ways. The purpose of this paper is not to review the literature on early literacy. Reviews are tools utilized by experts in the field to further bound and specify individual domains. Rather, the purpose here is to bring together pertinent information from multiple domains in a coherent framework to help in overall strategy development. As such, the purpose of this paper is to provide information that helps in the:

Identification of broad categories of literature related to early literacy;

Identification of the arenas, sometimes overlapping, within which early literacy programming is developed; and

Identification of some example models (some research driven and some evidence-based) that address early literacy development.

Identifying these and placing them in context will lead to stronger strategies that serve to build the literacy worlds of young children and assist those who support them.

Literature categories

An exploration of listings, from the years 2000 through 2008, from the Educational Information Resources Center (ERIC) and multiple social science research databases provided insight into the categories of research related to early literacy. These are broad categories into which an extensive collection of literature fits. Space and the limits of author expertise do not permit a full literature review in each category. Rather the following is meant to demonstrate a clustering of literature around the following categories as a precursor to possible deeper exploration and practical interventions.

Developmental health:

Here literature addresses the cognitive development and skills of the child and sometimes the special needs of at-risk students. Much of the literacy literature has focused on phonological awareness and formal instruction (Dickinson, Anastasopoulos, McCabe, Peisner, & Poe, 2003). “Phonological processing refers to the use of the sound structure of oral language in processing written and oral information” (Anthony, Williams, McDonald, & Francis, 2007, pp. 113-114). Although phonological awareness, and its own multiple components, is still considered crucial to literacy development, increasingly research has expanded to encompass the growing awareness of a range of contributors to early literacy development.

The literature first supports that the “foundations for literacy are established while children are preliterate” (Anthony et al., 2007, p. 115). This notion is supported by research in the cognitive sciences that point to brain “architecture” and the awareness that early life experiences influence the structure of the brain itself, forming a basis for later literacy development. Indications are that this basic structure begins to be “shaped by experience before and soon after birth, and [that] many fundamental aspects of that architecture are established well before a child enters school” (*The timing and quality of early experiences combine to shape brain architecture*, 2007, p. 1). This research points to the need for a child’s environment to be toxin free, with adequate nutrients and with the appropriate social interactions and experiences that promote healthy development along with being free of severe stress. It also points to the importance of timing in the types of experiences needed in relation to the phases of development of the brain and suggests that expecting young children to “master” skills inconsistent with their stage of brain development can produce stress that may have detrimental effects on brain development (*The timing and quality of early experiences combine to shape brain architecture*, 2007).

Even with the emphasis on early development, brain plasticity is thought to last throughout life (*The timing and quality of early experiences combine to shape brain architecture*, 2007). However, the emphasis on foundational skills and environments has led to the growing use of the term “emergent literacy” and to a more holistic understanding of the factors that contribute to literacy development especially in the early years. This shift opens up a variety of other research and practical concerns, including how and when to introduce various activities into a child’s life; the combinations of phonological development along with oral language, print awareness, reading, writing, and narrative discourse; and the importance of a literacy rich environment and culture in the developmental process. With this turn to holism, it is not surprising that one aspect of understanding early literacy development is an understanding of the home in a child’s life (Dickinson et al., 2003) as part of the developmental environment of early childhood.

Home:

A number of studies have examined the positive relationship between a child’s early literacy and specific home environment components such as the availability of books in the household. Researchers have indeed found “clear links from home experiences, through early literacy skills, to fluent reading” (Senechal & Lefevre, 2002, p. 455). One study even expanded the notion of availability of reading materials to print access at the community level. Researchers wrote about the study:

It documented how differences in economic circumstances translated into extraordinary differences in the availability of print resources for children who live in low-or middle-income communities. Inequity was reported in the number of resources, choice and quality of materials available, public spaces and places for reading, amount and quality of literacy materials in child-care center resources – even in public institutions, the schools, and local public libraries in the community. Long before formal schooling begins, considerable variations in

patterns of early literacy development are likely to be evident based on the ways in which print is organized in communities (Neuman & Celano, 2001, p. 24).

However, researchers have also found that exposure to books alone did not predict emergent literacy skills (Senechal & Lefevre, 2002, p. 456) making it important to expand the research and practice beyond just book provision or even print access, more generally treated, to broader understandings of parent literacy interactions.

In a quantitative meta-analysis of literacy studies, Senachal analyzed 13 articles about literacy development and concluded that training parents to *teach* their children to read had the most support for effectiveness, with encouraging parents to *listen* to their children read also having some support in the literature. She found limited intervention research conducted about parents reading to children although this may have been related to the specific criteria applied to the selection of articles to review (Senechal, 2006). Other researchers have found a positive relationship between being read to at home and early literacy development (Bracken & Fischel, 2008; Morgan, 2005; Yarosz & Barnett, 2001).

Another example of expansion is the emphasis on parental beliefs. Researchers have looked at the role that maternal literacy beliefs play in early literacy development and found a positive relation between maternal literacy beliefs and behaviors and a positive influence on the home literacy environment (Bingham, 2007). Bingham also found that a mother's literacy beliefs are not a "proxy" for a mother's socio-economic status (Bingham, 2007, p. 41), within the limitations of the study, indicating that changing beliefs may change behavior, independent of socio-economic status. In an interpretive study of three mother child dyads, Morgan documented the reading interactions between dyads within a disadvantaged community, highlighting a number of "sophisticated mother behaviors that are often associated with higher SES mothers" (Morgan, 2005, p. 297) with the term SES referring to socio-economic status. Although there was small sample size, two examples of behaviors included mothers making connections from books to their child's experiences and making references to abstract situations.

Unlike studies that focus on specific literacy activities and beliefs, other researchers have broadened the arena of home studies. Researchers have combined various aspects of home literacy practices to try to identify cumulative effects of practices at home through a global measure of literacy practice including items such as frequency of reading, enjoyment of reading, maternal sensitivity, and maternal book reading strategies (Roberts, Jurgens, & Burchinal, 2005). In a literature review, researchers also noted a number of specific parent-child interaction areas that impact a child's linguistic development. These include "responsivity/sensitivity" of parents, "emotional tone," "engagement," "parental talk," and "parental guidance" (Dodici, Draper, & Peterson, 2003). In studying parent-infant/toddler interactions and early literacy skills for children of low-income households, these researchers found similar results as others in that parent-infant/toddler interactions are indeed related to literacy development, specifically receptive vocabulary, symbolic representation, and phonemic analysis (Dodici et al., 2003, p. 132). In addition and unlike other short-term studies, their work demonstrated the influence of parent/child interactions on skill development longitudinally. Their study

showed that it is not just during explicit literacy activities that parents influence their children's literacy learning but also through everyday interactions (Dodici et al., 2003).

Another strand of research, shifts the focus from individual sets of behaviors to literacy as itself a cultural phenomenon. Cairney writes:

Like schools and classrooms, families can be understood as cultures in which participants (family members) construct particular ways of acting, believing and valuing through the interactions among family members. Thus, families construct particular views of literacy, and what it means to be literate (Cairney, 2002, p. 107)

and

While psychologists recognize that there are many forms of literacy, each with specific purposes and contexts in which they are used, such definitions often fail to recognize that literacy is a social practice as well as a psychological phenomenon. Literacy in all its forms, can only be understood when we also study the people who use it. Literacy is in essence a set of social practices situated in sociocultural contexts defined by members of a group through their actions with, through and about language (Cairney, 2002, p. 107).

Taking a sociocultural approach to literacy and literacy programming means asking questions related to family as context for learning literacy, various norms and meaning making activities, and how these may differ or be shared in the cultural context of learning literacy as a schooling process. The focus may be on informal or formal learning processes as they occur in the family or community. A sociocultural framework thus involves children as "apprentices alongside a more experienced member of the culture" (Gregory, Long, & Volk, 2004, p. 7) and views children as "active members of learning communities working and playing in the context of meaningful activities with others" (Gregory et al., 2004, p. 9).

Play:

Play is an important part of a child's learning. Parent interaction with their children through arts and crafts has been associated with children's literacy development (*Family involvement in early childhood education*, 2006). "Play is widely accepted as a developmentally appropriate way to communicate with young children. Children use play to learn about their world, practice roles, and work through emotional issues" (Draper, White, O'Shaughnessy, Flynt, & Jones, 2001, p. 3). However, due to current emphases on formal instruction and state and national standards for earlier and earlier age groups, studies related to the concept of play are increasingly limited (Oliver & Klugman, 2007). Still play deserves mention here due to the concept's common sense appeal and the studies that have spoken to its undeniable importance.

Play is a natural and very important part of a young child's world. Through play, children engage in representational and symbolic thoughts and actions...Using

one object or symbol to represent another is necessary for learning to read and write, because words that are used to read and write are symbols or representations of thoughts and objects (*Early literacy development: A focus on preschool*, 1998, p. 3).

Synthesizing the existing literature, Oliver and Klugman note that the link between play and literacy has been made and that “physical play shows positive correlations with children’s health, social development and learning and that play is strongly linked with the development of imagination and creativity” (Oliver & Klugman, 2007, p. 16). However, existing literature deals primarily with child play prior to the first and second grades leaving a need for questioning the benefit of play as a concept for literacy learning in early primary grades (Scully & Roberts, 2002). Scully and Roberts address this gap.

While some studies of play focus on freely chosen self-directed child activities, Scully and Roberts in thinking about play as “pleasurable” activity, focus on playful interactions *within* the formal learning environment. They write:

Curriculum planned with concrete materials, direct experiences, and hands-on activities builds bridges between the increasingly abstract content children are required to study in the early grades and their unique ways of learning (Scully & Roberts, 2002, p. 93)

They go on to describe multiple strategies for including playfulness in teaching, a strategy that they have found increases the abilities of students to read and write.

In addition, working from a therapeutic standpoint, researchers note the successfulness of including play consultation in teaching teachers how to interact positively with students and building the relationship between student and teacher, particularly those students that may show signs of discouragement in adapting to kindergarten and first grades (Draper et al., 2001). Their study showed positive changes in early literacy skills as well as classroom behavior because of play consultation related to formal instruction.

Formal Instruction:

With this shift to a focus on the classroom comes a shift to thinking about formal instruction and its relationships to child learning. Whether conducted within schools or supplemented at home or during afterschool hours with the purpose of improving academic achievement, formal instruction changes the focus to specific interventions and teaching strategies. Common questions around formal instruction include: What is the intervention or training? What issues is the intervention or training to address? Who is involved in the intervention or training and what are their beliefs and practices? What type of support is needed for those conducting the intervention? The purpose of this section is not to answer these questions, but rather to highlight some often neglected issues related to formal instruction. These include learning environment; connections between behavioral and social issues and early literacy, standards, and professional development.

In one study of early literacy, Goatley took a socio-cultural perspective and addressed multiple aspects of the learning environment for a community of students identified for low achievement in the area of literacy. She examined multiple interactions, and therefore learning opportunities, across the school setting and found that:

The adults and peers in a school setting both mediate and hinder students' literacy learning; that is some activities among the participants tended to support and contribute to the children's learning, while other interactions either did little to support or, in fact, appeared to inhibit students' literacy transformations (Goatley, 2000, p. 343)

This study expands the notion of specific interventions within the school to include multiple interactions throughout the school community and the ways in which these may be congruent or incongruent with the goals of improved early literacy. The study also expands the notion of schooling for literacy to include the role that peers play in literacy learning, opening up questions to approaches to literacy beyond the traditional reading and writing exercises in a classroom. Other researchers connect early literacy with behavioral and social outcomes even beyond the classroom.

In another literature review, researchers documented that preliminary research showed that improvements in early literacy skills were "associated with improved behavioral performance" (Lane, Fletcher, Carter, Dejud, & DeLorenzo, 2007, p. 273). Their study raised questions about the relationship of social and behavioral challenges and early literacy development and how programming should address these issues. Their study also raises questions about who, other than teachers, should be involved in early literacy interventions. In their study to address early literacy *and* behavioral and social issues, researchers utilized an intervention conducted by paraprofessionals and found significant improvements in phonological awareness amongst the treatment group (Lane et al., 2007). The research raises questions about what type of support is needed to prepare individuals (teachers, paraprofessionals, tutors, mentors) to help in developing literacy skills while also addressing the potential coupling of poor literacy skills with behavior and social issues. The question of support leads to issues of professional standards.

According to the researchers, one of the challenges to early education is the variation in teacher standards, particularly for pre-k instruction, with little congruence across local, state, federal and private funded programming. Expectations range from high school diplomas to four-year-degree requirements (King & Luebchow, 2006). With this wide variation, it is difficult to gauge across programs the potential for early literacy instruction in the beginning years. However, the question has been raised as to whether stricter standards for early care workers and even teachers may be needed to improve literacy instruction.

Coupled with the standards questions, professional development studies are another area where the question of teacher skill is addressed related to early literacy development. There are inquiries into what types of professional development will assist teachers in

navigating the complexities of the early literacy arena. In one qualitative study to understand a collaborative professional development course in early literacy development, a researcher sought out the impact of the collaborative course on “teachers’ beliefs and values, practice, and sense of professionalism” and examined the “usefulness of reflection, narrative, and collaboration in furthering their work” (Gillentine, 2006, p. 343). He found that indeed the collaborative approach helped teachers to examine their different approaches to literacy development, to reflect on various literacy beliefs and practices, and to “gain a sense of themselves as professionals” (Gillentine, 2006, pp. 356-357). He also found that the collaborative approach to the course, and using reflection and narrative, were supportive of the learning goals for the course. This study supports the role of learning communities to the development of early literacy teaching.

These discussed areas related to formal instruction indicated that there is much to be explored through literacy interventions and multiple ways of understanding the success of interventions. Intertwined with teaching and learning, but deserving of its own category as an emergent issue, is the role of technology as it relates to literacy.

Technology:

Articles in this category focus on the influences of using technology (computers and internet) to assist in literacy development for young children. Empirical research in this area is still relatively low when compared to school system expenditures in the area of technology (Tracey & Young, 2007). In one study, researchers noted that technology has been slower to be incorporated into nursery care than into the primary grades (Mitchell & Dunbar, 2006). They do note, however, that their research supports the belief that computers benefit young children in the nursery setting. With a combination of surveys, interviews and observations, they concluded that there was difficulty for teachers to find appropriate level software for younger children but that “the programs that were in use appeared to provide the children with a range of enjoyable and purposeful learning tasks” that promoted information and communications technology skills. They noted that much of the software focused on literacy and mathematics skills. However, with respect to the importance of the computer usage, they wrote:

In addition to allowing each child to take control of his or her learning, the shared focus of the computer screen opened up opportunities for discussion, for social interaction, for the exchange of ideas and suggested solutions to problem-solving activities, for the co-construction of knowledge and for the promotion of learning as an enjoyable and personally rewarding experience, thereby helping to raise self-esteem. (Mitchell & Dunbar, 2006, p. 255).

In a year long study of kindergarten students using a software program as a supplement to a classroom literacy approach, Tracey and Young found that students using the software showed significant gains over students who did not use the software, on measures that were based on the same developmental models as the software program itself (Tracey & Young, 2007). In a meta-analysis of studies of computer assisted instruction specifically regarding reading development, researchers also found that computer assisted instruction

programs have a “positive, though small, effect on beginning readers” (Blok, Oostdam, Otter, & Overmaat, 2002, p. 121). They do suggest that other studies show even more positive effects than theirs shows. For example, in a literature review about early literacy, researchers noted that “using technology like the Web to increase literacy skills does work if used appropriately” and that “children with frequent access to quality computer programs will enhance their creativity, critical thinking, and problem-solving skills” (Hillman & Moore, 2004).

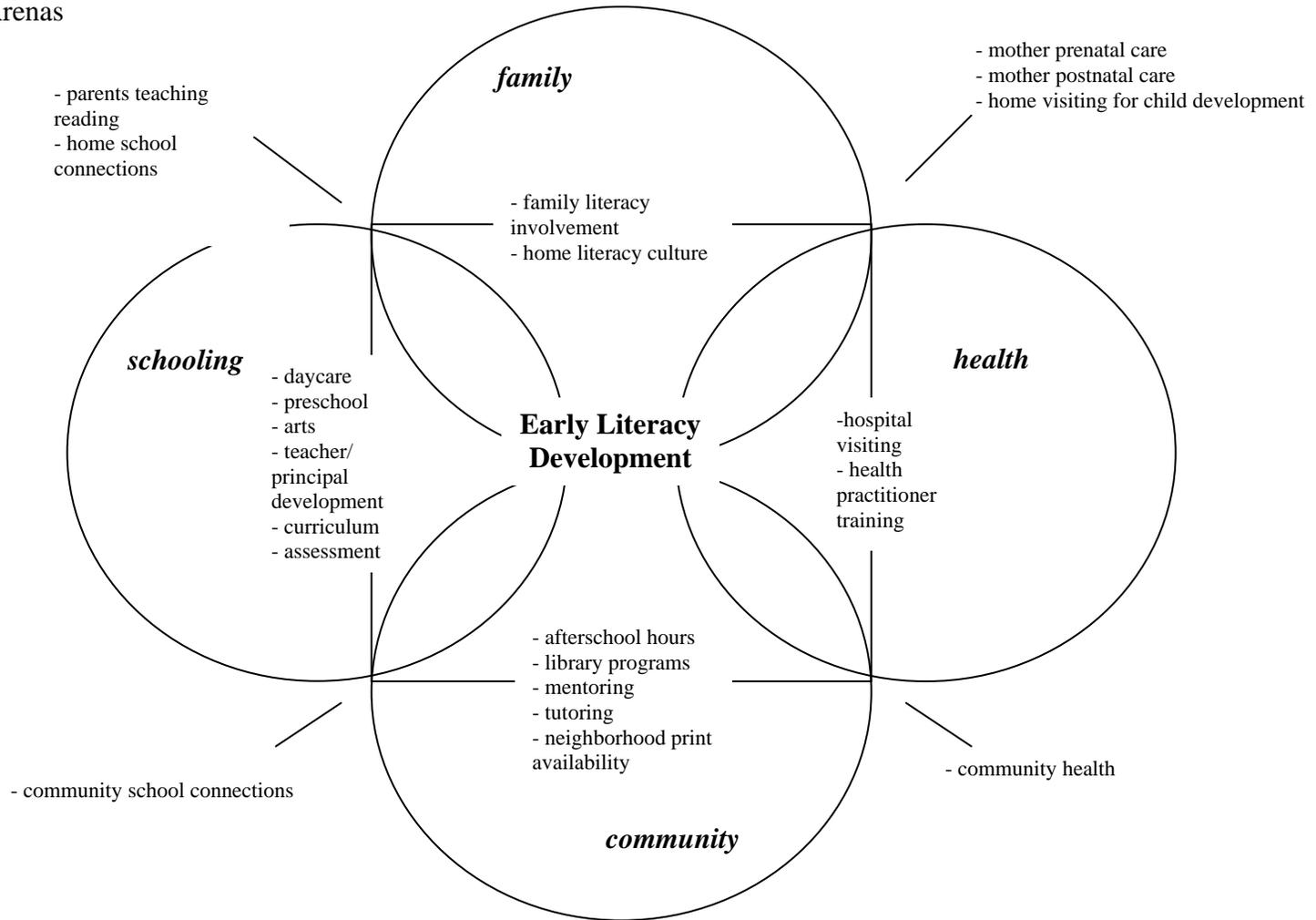
Increasingly teachers are being asked to incorporate, not just computers, but also the internet into instruction both for its assistance in other areas such as literacy and also, some claim, as a new requirement of literacy itself. Space here does not allow for a full discussion of how the internet is changing definitions and practices of literacy and literacy instruction as the internet becomes a new means of communication itself. However, in one qualitative study of 13 teachers in k-12 classrooms, researchers concluded that teachers noticed more of a change in student practices related to writing skills using the internet rather than reading skills. Even though the internet provided a wide range of reading materials, it was in writing processes that teachers, particularly elementary school teachers, noticed enhanced problem-solving processes and motivation as students published their work online (Karchmer, 2001). Studies such as the above lead to the call for more evaluation to be done related to technology use, especially because of the high costs of infusing classrooms with technology hardware and software. In addition, more needs to be done in examining specific programming, its relationship to technology use, and related effects on literacy development and instruction.

Programming

Among the programs and approaches that are identified in the literature and in a program search, it appears that there are multiple arenas from which early literacy programming emerges. These arenas are based on the possible people involved in programming – family members, health practitioners, school members and communities. These targets sometimes overlap, such as when the focus becomes the health of the mother or when parents teaching literacy is the emphasis. Identifying these areas is important in providing a framing for the many different ways literacy can be approached. The following graphic evolves from perusal of a number of research and advocacy documents and websites. However, the graphic does not indicate research availability in each of these areas nor their direct connection to literacy development. Its intention is to promote thinking about the variety of programming foci that might be related to early literacy development.

The following graphic therefore provides a frame for placing programs into arenas and from there, developing multifaceted strategies to be tested. The graphic is not exhaustive of all possible literacy program types but provides a way of placing programs according to their orientations. The graphic is meant then to help in understanding the approach of programs and also provides a backdrop for the final literacy matrix on specific literacy models.

Programming Arenas



Context for developing strategy

There is growing awareness that literacy does not start when a child enters school. A Connecticut State Department of Education report states that learning about reading and writing begins in infancy and as children are exposed to print. The report goes on to say that children “grow in their ability to read and write when they understand that reading and writing are purposeful activities that are used to accomplish goals” and that this happens by observing adults using reading and writing (*Early literacy development: A focus on preschool*, 1998). This interaction need not be only with adults, as research has begun to examine the social interaction of children, such as during peer relationships, and its impact on literacy development, particularly oral language use (Jones, 2002). The way oral language is used at home and in school is important to the development of literacy skills for young children as they acquire vocabulary and engage in conversation (Dickinson & Tabors, 2002).

Sometimes referred to as “emergent” literacy, there is a range of skills and attitudes that are precursors to reading and writing. This awareness, as exhibited in the various arenas of programming has led to a number of approaches to address multiple stages of early childhood development for children from 0-to-8 years. Indications are that beginning earlier is better when addressing literacy development in children. “The convergence of neuroscience and economics tells us that the clock is always ticking, and the costs of ignoring problems keeps rising” and that the “greatest returns” on investments are achieved when investments are made before children begin school (*The timing and quality of early experiences combine to shape brain architecture*, 2007, p. 6).

The number and approaches of literacy programs is encouraging, along with current legislation that focuses on reading skill. The presence of family literacy programs that address multiple aspects of a child’s literacy, not just schooling, is also promising. However, researchers have noted that a critical questioning of family literacy programs is crucial. Margaret Caspe of the Harvard Family Research Project notes that programs sometimes embrace a “deficit model” especially toward low income families. This approach assumes that families are deficient in skills and knowledge and must be regulated or educated to improve child literacy (Caspe, 2003). She adds that there is limited research related to how best to work with families and children; family literacy programs often emerge from a gendered perspective that “confines women to a domestic sphere,” and that missing is a social constructivist perspective that would situate literacy programming within social and political contexts (Caspe, 2003, p. 3). Her work points to the need to consider how programs approach culture and gender and how various approaches influence diverse participants.

Caspe notes the following guiding principles that included here to help in questioning the multitude of literacy programs. She states that the perspectives she draws from suggest that programs should (Caspe, 2003, p. 4):

- Strive to understand parents’ literacy strengths and reinforce their knowledge and skills.

- Believe that literacy is acquired through shared dialogue, where learners are actively contributing to their own learning.
- Provide opportunities for adults and children to reflect on literacy practices in their daily lives.
- Recognize the literacy history of parents and that all parents come with some memories of literacy.
- Grow out of needs of participants and examine resources in a sociocultural context.
- Adopt an empowerment philosophy and take action to break down patterns of social isolation.
- Respond to the interests of adults and children.
- Document their experiences and learn from them, which at the same time contributes to building a research base for family literacy.

With these cautions and principles, various questions must always be answered in relation to literacy programming. For example, what factors are thought to influence literacy development? When and where should literacy be addressed? Whose responsibility is it to encourage early literacy development? Upon what research is an approach based? How should the family be involved in literacy learning and development? How best can the needs of underrepresented communities be addressed? In what ways are participants active in the design and implementation of literacy programming? Answers to these questions and others underlay any specific approach to literacy development.

In addition, advocates of collaboration approaches lend support to broader emphasis on the multiple strategies that may influence early literacy. In documenting the Altman Early Literacy Collaborative, a Chapin Hall researcher described the process as a group of literacy organizations came together to design and implement an integrated approach that went beyond a packaging of individual services of each organization. Describing the outcome in a case study, Hirota wrote:

Perhaps even more important, they are in dynamic interaction with the challenges of implementing their theory of practice as fully as possible. This has demanded a willingness – individually and collectively – to push organizational as well as collaborative boundaries, take on different perspectives and tasks, and develop new skills. It is in these interactions – with each other and with the vision of their joint program – that collaboration can fulfill expectations for innovative reflection and action (Hirota, 2004, p. 17)

A possible outgrowth of approaches such as this, that bring together multiple components from a variety of programs, is a questioning of the utilization of the idea of comprehensiveness for early literacy approaches. Might bringing together multiple stakeholders and a variety of programmatic elements, perhaps rooted in differing arenas, lead to stronger supports for children and families in early literacy development? Addressing this question will require an emphasis on collaborative endeavors and varied

interventions that draw from multiple programs to form comprehensive approaches. The comprehensive community movement has focused on housing, community development and broader educational programming. However, despite the realization that family and community matter, that literacy develops not just in school but through various interactions, and that overall health is important to children's success in later literacy, little research has addressed the specific contributions of comprehensive and integrated programming to the specifics of literacy development.

The above discussion of categories of literacy literature and programming arenas, coupled with brief context notes provides a backdrop for the following literacy matrix. The matrix provides a listing and descriptive information about various early literacy programs. The matrix allows for an awareness of the multiple emphases of programming and should entice a curiosity as to potential combinations of approaches that may come together for more comprehensive strategies to address early literacy.

**Literacy Program Matrix
(alphabetical order)**

Note: Description information obtained from program websites or evaluation documents—verbatim where available.
 What Works Clearinghouse – product of Institute of Education Sciences (IES) US Dept. of Education <http://ies.ed.gov/ncee/wwc/>

Model Name	Lead organization/ Contact	Descriptor/Approach	Age focus	Field focus (health, schooling, family or community)	Evaluation notes
Advancing reading Achievement in Elementary Schools (ARA-E)	SERVE Center UNC Greensboro SERVE 800-755-3277 www.serve.org	Research based professional development project -- Faculty professional learning team format to assist elementary educators in providing effective reading instruction.	elementary grades.	schooling	No evaluation completed
CELL Preschool literacy project	Foundation for Comprehensive Early Literacy Learning Foundation For Comprehensive Early Literacy Learning 909.335.3089 www.cell-exll.com	The CELL Preschool Literacy Project is designed to provide professional development to support teachers in preparing young children to enter kindergarten with the necessary language and early reading and writing skills to ensure school success. Workshops are organized to help schools implement the goals of early childhood education standards and foundations, including those for English learners and children with special needs, and to use assessments to monitor progress towards those goals. Research based teaching methods that are best practices are organized into a Framework of Instruction to support teaching in whole groups, small groups and for individual independent work and intervention. Family Literacy and its importance are also emphasized during the training sequence	preschool	schooling	Unknown
Corrective Reading	McGraw Hill/ SRA 1-888-SRA-4543 www.sraonline.com	<i>Corrective Reading</i> is designed to promote reading accuracy (decoding), fluency, and comprehension skills of students in third grade or higher who are reading below their grade level. The program has four levels that address students' decoding skills and six levels that address students' comprehension skills. All lessons	3 rd grade	schooling	Evaluation on What Works Clearinghouse

		in the program are sequenced and scripted. <i>Corrective Reading</i> can be implemented in small groups of four to five students or in a whole-class format. <i>Corrective Reading</i> is intended to be taught in 45-minute lessons four to five times a week. For the single study reviewed in this report, only the word level skills components of the <i>Corrective Reading</i> program were implemented.			
DaisyQuest	Metiri Group 310-945-5150 www.metiri.com	<i>DaisyQuest</i> is a software bundle that offers computer-assisted instruction in phonological awareness, targeting children aged three to seven years. The instructional activities, framed in a fairy tale involving a search for a friendly dragon named Daisy, teach children how to recognize words that rhyme; words that have the same beginning, middle, and ending sounds; and words that can be formed from a series of phonemes presented separately, as well as how to count the number of sounds in words	3-7 yrs	schooling	Evaluation on What Works Clearinghouse
Early Authors Program	No current contact number found www.ryerson.ca	The Early Authors program can be described as a specific instrument used to improve the possibility of more equitable outcomes for all children. Dual language authoring programs such as the Early Authors Program (EAP) consist of a transformative literacy model designed to strengthen the links among children, families, caregivers as they author books. The books, in which the child is the protagonist, are bilingual, thus encouraging children to use both their home language and the language of instruction. Developed by utilizing scanned photographs and word processing, the books allow children, parents and caregivers to communicate and share their personal experiences. The process of authoring books is aimed not only at enrichment of children's print motivation, increased vocabulary, and enhanced phonemic awareness, but also at the acquisition of a strong sense of self worth and pride in cultural identity.	Unknown	schooling	Unknown
Early intervention in Reading EIR	EIR Professional Development Program	<i>Early Intervention in Reading (EIR)</i> ® is a program designed to provide extra instruction to groups of students at risk of failing to read. The program uses	k- 4 th grade	schooling	Evaluation on What Works Clearinghouse

	763-785-0701 www.earlyinterventioninreading.com	picture books to stress instruction in phonemic awareness, phonics, and contextual analysis, along with repeated reading and writing. In grades K–2, the program includes whole-class instruction followed by small-group instruction for students who score low on oral reading and literacy skills. In grades 3 and 4, the program consists of small group instruction for 20 minutes, four days a week. Teachers are trained for nine months using workshops and an Internet based professional development program.			
Earobics	Earobics/ Houghton Mifflin 888-242-6747 www.earobics.com	<i>Earobics</i> ® is interactive software that provides students in pre-K through third grade with individual, systematic instruction in early literacy skills as students interact with animated characters. <i>Earobics</i> ® <i>Foundations</i> is a version for pre-Kindergarten, Kindergarten, and first graders. <i>Earobics</i> ® <i>Connections</i> is for second and third graders and older struggling readers. The program builds children’s skills in phonemic awareness, auditory processing, and phonics, as well as the cognitive and language skills required for comprehension. Each level of instruction addresses recognizing and blending sounds, rhyming, and discriminating phonemes within words, adjusting to each student’s ability level. The software is supported by music, audiocassettes, and videotapes and includes picture/word cards, letter-sound decks, big books, little books, and leveled readers for reading independently or in groups.	pre k - 3	schooling	Evaluation on What Works Clearinghouse
Failure Free Reading	Failure free reading 888-233-read www.failurefreeonline.com	<i>Failure Free Reading</i> is a language development program designed to improve vocabulary, fluency, word recognition, and reading comprehension for Kindergarten through grade12 students who score in the bottom 15% on standardized tests and who have not responded to conventional beginning reading instruction. The three key dimensions of the program are repeated exposure to text, predictable sentence structures, and story concepts that require minimal prior knowledge. The program combines systematic,	k-12	schooling	Evaluation on What Works Clearinghouse

		scripted teacher instruction, talking software, workbook exercises, and independent reading activities. The program is delivered through small group or individual instruction.			
Fast ForWord	Scientific learning 888-358-0212 www.scilearn.com	<i>Fast ForWord</i> ® is a family of computer-based products. According to the developer's web site, the programs help students develop and strengthen the cognitive skills necessary for successful reading and learning. Participants spend 30 to 100 minutes a day, five days a week, for four to 16 weeks with these adaptive exercises. <i>Fast ForWord</i> ® <i>Language</i> builds fundamental cognitive skills of memory, attention, processing, and sequencing in the context of key language and reading skills, including listening accuracy, phonological awareness, and language structures. Programs in the <i>Fast ForWord</i> ® <i>to Reading</i> series provide the next sequence of cognitive skills designed to help students acquire reading skills.	k-3	schooling	Evaluation on What Works Clearinghouse
Haskins Literacy Initiative	Haskins Laboratories New Haven, CT 203.865.6163 www.haskins.yale.edu	Haskins Literacy Initiative promotes the science of teaching reading through professional development and classroom support for teachers, by designing and conducting research, and by engaging in advocacy to inform public policy and improve reading achievement for every child.	prek-6 th grade	schooling	Evaluation by request
High /Scope Early Literacy Growing readers early literacy curriculum	High Scope Educational Research Foundation Michigan 734-485-2000 www.highscope.org	Learning to read and write — a developmental process that begins at birth. The principle that literacy skill development begins in infancy and builds on children's basic need to communicate is the core of High/Scope's early literacy programs. In High/Scope classrooms and centers, children develop literacy skills by engaging in meaningful reading and writing experiences and become readers and writers through a unique blend of child-initiated learning and teacher-guided instruction.	infancy through elementary	schooling	Evaluation online

Home Instruction Program for Preschool Youngsters (HIPPY)	<p>HIPPY 501-537-7726</p> <p>www.hippyusa.org</p>	<p>Home Instruction for Parents of Preschool Youngsters (HIPPY) is a parent involvement, school readiness program that helps parents prepare their three, four, and five year old children for success in school and beyond. The parent is provided with a set of carefully developed curriculum, books and materials designed to strengthen their children's cognitive skills, early literacy skills, social/emotional and physical development.</p> <p>HIPPY programs empower parents as primary educators of their children in the home and foster parent involvement in school and community life to maximize the chances of successful early school experiences. HIPPY USA supports the development and operation of programs in communities across the United States through ongoing program development and technical assistance informed by research and public policy.</p>	3-5 yrs	family	Evaluation highlights online
Intergenerational literacy project	<p>No current program contact found</p> <p>www.bu.edu/ilp/staff/</p>	<p>Intergenerational Literacy Project (ILP). The ILP began offering literacy instruction to parents in 1989. The program was developed in collaboration with 17 community organizations, and is guided by a Board of Collaborators representing participating parents, the Chelsea Public Schools, Boston University, and community organizations. The program seeks to accomplish the general goal of supporting families in working with their children, both to attain the instructional objectives of the schools and to reinforce positive attitudes toward education. To accomplish the larger goal, two sub-goals and objectives have been outlined: to improve the literacy skills of participating adults and to improve literacy knowledge among pre-school and school-aged children.</p>	Not known	family	Unknown
Kaplan Spell Read	Kaplan	<i>Kaplan SpellRead</i> (formerly known as <i>SpellRead</i>)	2 nd grade +	schooling	Evaluation on What

	888-kaplan8 www.spellread.com	<i>Phonological Auditory Training</i> ®) is a literacy program for struggling readers in grades 2 or above, including special education students, English language learners, and students more than two years below grade level in reading. <i>Kaplan SpellRead</i> integrates the auditory and visual aspects of the reading process and emphasizes specific skill mastery through systematic and explicit instruction. The program takes five to nine months to complete and consists of 140 lessons divided into three phases.			Works Clearinghouse
Ladders to Literacy	Washington Research Institute 206-285-1523 www.wri-edu.org/	<i>Ladders to Literacy</i> is a supplemental early literacy curriculum published in <i>Ladders to Literacy: A Kindergarten Activity Book</i> . The program targets children at different levels and from diverse cultural backgrounds—those who are typically developing, have disabilities, or are at risk of reading failure. The activities are organized into three sections with about 20 activities each: print awareness, phonological awareness skills, and oral language skills. While a <i>Ladders to Literacy</i> curriculum is also available for preschool students	preschool and kindergarten	schooling	Evaluation on What Works Clearinghouse
Lee y seras	Scholastic in partnership with National Council of La Raza 202-785-1670 www.scholastic.com	Lee y serás (Read and You Will Be) is a multi-faceted, multi-year reading initiative that empowers and engages families and communities to foster children’s literacy development. At its core, Lee y serás® is about helping Latino children realize their potential as strong readers and learners. A child who learns to read and loves reading possesses skills that unlock access to the lifelong benefits that education provides.	Not known	Family/ community	Unknown
LindaMood Bell Learning Process	Lindamood-Bell programs 800-233-1819 Site location in	Multiple programs -- Sensitive-cognitive approach. Has learning centers with instruction and also school services. A School Services project consists of professional	pre-k through adult	schooling	Evaluations available online Also on What Works

	Fairfield CT www.lindamoodbell.com	development in the programs for teachers, real-time differential diagnosis, small group intensive intervention, on-site consulting and monitoring, and school and district-wide implementation.			Clearinghouse
Motheread	Motheread Inc. 919-781-2088 www.motheread.org/	<p>Focused on the humanities and storytelling</p> <p>Combines the teaching of literacy skills with child development and family empowerment issues. Parents and children learn to use the power of language to discover more about themselves, their families, and their communities.</p> <p>Offers classes for both adults and children. In adult classes, participants learn to be story readers, writers, and tellers in a group structure that supports their own sense of worth and ability. These classes are appropriate for all adults, regardless of reading ability or prior educational experience. By teaching the “why” of reading rather than just emphasizing the “how,” classes encourage parents to be reading role models for their children.</p> <p>For children, Story Exploring provides a structured environment for learning reading, critical-thinking, and problem solving skills.</p>	adults and children	family and schooling	Evaluation available on line
Parent-child home program	Parent-child program 516-883-7480 www.parent-child.org/	The Parent-Child Home Program is a research-based and research-validated early childhood literacy and school readiness program. The Program successfully strengthens families and prepares children for academic success through intensive home visiting. Since 1965, this innovative program has emphasized the importance of quality parent-child verbal interaction to promote the cognitive and social-emotional development that children need in order to enter school with the tools they need to become	pre-k	family	Evaluation highlights online

		<p>successful students.</p> <p>Today, in over 150 community-based replication sites throughout the world, The Parent-Child Home Program is helping families who have not had access to educational opportunities to create language-rich home environments and to prepare their children to enter school ready to learn and ready to succeed.</p>			
<p>Parents as Teachers/ Born to learn and Meld approaches</p>	<p>Parents as Teachers 314-432-4330 www.parentsasteachers.org/</p>	<p>Parents as Teachers is the overarching program philosophy of providing parents with child development knowledge and parenting support.</p> <p>Home visitation program.</p>	infancy to 5yrs	Family	Evaluation available online
Partnership for Literacy	<p>Center on English Learning and Achievement (518) 442-5029 www.albany.edu/aire</p>	<p>The Center on English Learning and Achievement (CELA) offers a program of instructional development and professional growth that is based on many years of research and development with schools across the country and the grade span. This ongoing work takes place in K-12 schools in New York's Capital Region and beyond, with teachers of all subject areas, and focuses specifically on helping to identify and address critical needs related to student literacy achievement. Through participation in the Partnership, teachers deepen their knowledge, skills, and understandings of language and learning and become better able to help students develop better reading, writing, speaking, thinking, and listening skills. In addition, the Partnership fosters the development of self-sustaining professional communities of teachers. The work is supported by a mix of funding from both public and private sources, including contracts and grants.</p>	k-12	schooling	Early literacy evaluation expected in about one year
Peer Assisted Learning Strategies	Vanderbilt Kennedy Center for Research	<i>Peer-Assisted Learning Strategies (PALS)</i> is a peer-tutoring program. According to the developer's web	k-3 rd grade	schooling	Evaluation on What Works

PALS	on Human Development http://kc.vanderbilt.edu/pals/	site, it is designed to be incorporated into the existing curriculum with the goal of improving the academic performance of children with diverse academic needs. Teachers train students to use <i>PALS</i> procedures. Students partner with peers, alternating the role of tutor while reading aloud, listening, and providing feedback in various structured activities. <i>PALS</i> is typically implemented three times a week for 30 to 35 minutes.			Clearinghouse
Raising a Reader Play and learning strategies and Family nights	Children's Learning Institute (713) 500-3704 www.childrenslearninginstitute.org	School-based book exchange program, called Raising a Reader, and a school-based parent educational program, called Family Nights. These programs aim to improve the school readiness of 3- and 4-year-old children from economically disadvantaged backgrounds by increasing the frequency and quality of language and literacy activities in children's homes.	3 and 4 yrs	family and schooling	Unknown
Reach out and Read	Reach Out and Read Massachusetts 617-455-0600 www.reachoutandread.org	Reach Out and Read trains doctors and nurses to advise parents about the importance of reading aloud and to give books to children at pediatric check-ups from six months to five years of age. A special focus is placed on children growing up in poverty. By building on the unique relationship between parents and medical providers, Reach Out and Read helps families and communities cultivate early literacy skills so that children enter school prepared to succeed at reading.	6mos – 5yrs	health	Evaluation online
Read and Rise	Scholastic in partnership with the National Urban League 212-558-5300 www.scholastic.com	Scholastic, in collaboration with the National Urban League (NUL), launched the <i>Read and Rise</i> initiative to help build the reading skills of African American children. To date, more than a million <i>Read and Rise: Preparing Our Children For a Lifetime of Success</i> literacy guides have been distributed through the National Urban League's 100 affiliate operations, 400 nonprofit organizations, schools, libraries and government agencies.	?	family	Unknown

		Also have a magazine, a workshop curriculum for parent circles to teach parents how to improve children's literacy skills, and a children's book.			
Read to Grow / Books for Babies	Read to Grow Connecticut (203) 488-6800 www.readtogrow.org	Read to Grow is unique. While many early literacy programs start when a child is six months old or older, Read to Grow meets families in the hospital when a baby is born, linking health to the importance of early literacy, language and love. We serve all newborns, providing a new children's book and literacy guidance to all families regardless of income. Infant brain research shows that learning begins at birth, and Read to Grow works to ensure that parents understand their important role as their child's first teacher, as well as the critical relationship between verbal stimulation, language development and future literacy. Our message is that by reading with and talking to children beginning at birth, parents can help their youngsters grow to love books and learning, and develop the vocabulary, language and early literacy skills they will need to succeed at school, in the workplace and in life. Read to Grow currently has Books for Babies programs in seven Connecticut hospitals and reaches about 40% of the state's newborns. Volunteers visit with parents at various stages and provide literacy information. Program also trains healthcare staff in hospitals and pediatrician offices.	infants +	health / family	Evaluation underway – not released yet.
Read Write and Type	Talking Fingers inc. 415-472-3103 www.readwritetype.com	<i>Read, Write & Type!</i> TM Learning System is a software program with supporting materials designed to teach beginning reading skills by emphasizing writing as a way to learn to read. The program was developed for six- to nine-year-old students who are just beginning to read and for students who are struggling readers and writers. The main goal of <i>Read, Write & Type!</i> TM is to help students develop an awareness of the 40 English phonemes and the ability to associate each phoneme	6-9 yrs	schooling	Evaluation on What Works Clearinghouse

		with a letter or a combination of letters and a finger stroke on the keyboard. Other goals of the program include identifying phonemes in words and fluency in sounding out, typing, and reading regularly spelled words.			
Reading is Fundamental	Reading is Fundamental 1 (877) RIF-READ or (202) 536-3400 www.rif.org/	Family of Readers is a family reading service that currently serves over 158,000 children and their parents across the country, focusing on educationally at-risk children, from birth through elementary school, and their families. Shared Beginnings helps young parents develop their children's early language and literacy skills. A series of activities gives parents practice in reading aloud to their children and planning early learning experiences that stimulate language development in infants and toddlers. Parents also learn how to choose picture books that their children will enjoy. Running Start is a reading motivation program for first graders and their families. The program builds on the promise of first grade, a special time when children are excited, parents are involved, and hopes and expectations are high for a child's future success.	birth and up	family	Unknown
Reading Recovery	Reading Recovery Council of North America 614-310-7323 www.readingrecovery.org	Reading Recovery is a highly effective short-term intervention of one-to-one tutoring for low-achieving first graders. The intervention is most effective when it is available to all students who need it and is used as a supplement to good classroom teaching. Individual students receive a half-hour lesson each school day for 12 to 20 weeks with a specially trained Reading Recovery teacher. As soon as students can meet grade-level expectations and demonstrate that they can continue to work independently in the classroom, their lessons are discontinued, and new students begin individual instruction.	first grade	schooling	Evaluation on What Works clearinghouse
Reading Starts with us	Scholastic	The Reading Starts With Us program provides ready-	Not known	family	Unknown

	212-558-5300 www.scholastic.com	to-go, easy, and effective workshops that explore various literary genres. Parents learn enjoyable ways to read and talk about books with their children. <i>Reading Starts With Us</i> workshops help promote stronger bonds between parent and child. The workshops create a link between the home and school environments that promotes the value of reading and discussing books. Workshops also promote an enjoyable and useful social network for parents. Parents can share their experiences and culture with the other parents and teachers.			
Start Making a Reader Today SMART	SMART 877-598-4633 http://getsmartoregon.org	<i>Start Making a Reader Today</i> ® (<i>SMART</i> ®) is a volunteer tutoring program widely implemented in Oregon for students in grades K-2 who are at risk of reading failure. The program is designed to be a low-cost, easy-to-implement intervention. Volunteer tutors go into schools where at least 40% of students are eligible for free or reduced-price lunch and read one-on-one with students twice a week for half an hour. Typically, one volunteer works with two children on four types of activities: reading to the child reading with the child, re-reading with the child, and asking the child questions about what has been read. The program also gives each student two new books a month to encourage families to read together.	k-2 nd grade	schooling	Evaluation on What Works Clearinghouse
Stepping Stones to Literacy	Sopris West Educational Services 800-547-6747 www.steppingstonestoliteracy.com/	<i>Stepping Stones to Literacy</i> is an effective, research-based program developed to assist children who could potentially face reading failure. Over the course of 25 intensive lessons, students learn the crucial skills necessary to attain reading fluency. In addition, they come away from the program with a framework for reading comprehension that can be applied to all content areas. Is a supplemental intervention with all activities packaged together and easy to use	kindergarten – intervention preschool -- prevention	schooling	Evaluation on What Works Clearinghouse

Success for All	Success for All Foundation 1800-548-4998 www.successforall.net/	Variety of programs including curriculum and professional development – emphasis on whole school reform and parental and community involvement	pre k and up	schooling	Multiple evaluations online Also on What works Clearinghouse
Voyager Universal Literacy System	Voyager Learning 888-399-1995 www.voyagerlearning.com/	The <i>Voyager Universal Literacy System</i> ® is a core reading program designed to help students learn to read at or above grade level by the end of the third grade. This program uses strategies such as individual reading instruction, higher-level comprehension activities, problem solving, and writing. Students are also exposed to computer-based practice and reinforcement in phonological skills, comprehension, fluency, language development, and writing. The program uses whole classroom, small group, and independent group settings. <i>Voyager Universal Literacy System</i> ® emphasizes regular assessments, with biweekly reviews for struggling students and quarterly assessments for all students.	k-2 nd grade	schooling	Evaluation available on What Works Clearinghouse
Waterford early Reading Program	Waterford Institute / distributed by Pearson Digital 212.222.2890 www.waterford.org/	<i>The Waterford Early Reading Program</i> ™ is a comprehensive, research-based curriculum that teaches children how to read, write, and keyboard. It is one of the nation's first research-based, technology-driven reform models in early reading instruction.	Not known	schooling	Evaluation research online Also on What Works Clearinghouse
Wilson Reading System and Foundations	Wilson Language 508-368-2399 www.wilsonlanguage.com	<i>Wilson Reading System</i> ® is a supplemental reading and writing curriculum designed to promote reading accuracy (decoding) and spelling (encoding) skills for students with word-level deficits. The program is designed to teach phonemic awareness, alphabetic principles (sound-symbol relationship), word study, spelling, sight word instruction, fluency, vocabulary, oral expressive language development, and comprehension. Students engage in a variety of	k-3 rd grade	schooling	Evaluation on What Works Clearinghouse

		<p>activities in the classroom, including hearing sounds, practicing with syllable and word cards, listening to others read, and reading aloud and repeating what they have read in their own words. The program is designed to help children master new skills, with reviews reinforcing previous lessons.</p> <p>This program was designed for students in grade 2 and above. <i>Foundations</i>®, a related program not reviewed in this report, was recently developed with the same principle for students in Kindergarten through third grade.</p>			
Words Travel	<p>Scholastic in partnership with Volunteers of America</p> <p>703-341-5000</p> <p>www.scholastic.com</p>	<p><i>Words Travel</i> is the first national literacy and family strengthening program for incarcerated parents and their children. The venture is a partnership between Scholastic and Volunteers of America, one of the nation's largest human service organizations. The mission of the program is to connect incarcerated parents with their children through reading books. <i>Words Travel</i> is currently being piloted at 5 prison facilities nationwide with plans for expansion in 2006.</p> <p>Through the six-week <i>Words Travel</i> program, incarcerated parents---both men and women---participate in a series of classes to gain familiarity with the different genres of children's literature and how they can play a key role in supporting their child's reading development, even while serving time. The program is centered around <i>Reading Starts With Us</i>, a family literacy program that teaches parents how to engage in conversational reading with children.</p> <p>Incarcerated parents enrolled in the program read and record books on tape for their children. The books and tapes are sent to the children or given to them during visits to the correctional facility. Children participating in the <i>Words Travel</i> program receive a special book bag, personal tape player and other supplies to use. The children are able to listen to their parent's voice and</p>	Not known	family	Unknown

		read along as often as they like. Scholastic provides financial grants to support the initiative and donates the books and recording equipment, while the program is administered through Volunteers of America.			
Words Work	<p>Saint Paul Foundation</p> <p>800.875.6167</p> <p>http://saintpaulfoundation.org</p>	<p>Words Work! is an early literacy project, developed by The Saint Paul Foundation, that is successfully closing the achievement gap for preschool children. Head Start students who participated in Words Work! outperform their Head Start national counterparts in alphabet knowledge and counting. They also consistently outperform their peers in the Saint Paul Public Schools on national standardized tests.</p> <p>Words Work! partners with early childhood programs like Head Start and builds on their ability to:</p> <ul style="list-style-type: none"> -Deliberately engage and involve parents -Demonstrate a commitment to ongoing professional development for staff -Maintain high quality program standards 	preschool	family/ schooling	Unknown

Search Process for Literature Reviews – Early Literacy

Foundations

Annie E. Casey Foundation
Carter Center
Boston Foundation
Cleveland Foundation
Enterprise Foundation
Local Initiatives Support Corp.
Surdna Foundation
Ford Foundation
Edna McConnell Clark Foundation
Pew Charitable Trust
New York Community Trust
James Irvine Foundation
Charles Stewart Mott Foundation
Macarthur Foundation
Hewlett Foundation
Kellogg Foundation
Rockefeller Foundation
Robert Wood Johnson Foundation
Foundation for Child Development
Packard Foundation
Kauffman Foundation
Northwest Area Foundation

Google search

Google scholar search

Think tanks and research firms

Chapin Hall Center for Children
Urban Institute
Aspen Institute (Roundtable on Community Change)
Center for the Study of Social Policy
ABT Associates
OMG
Public Private Ventures
Center for Assessment and Policy Development

Eric search

Database searches in social sciences

Iconn book search

Other sources

Zero to three policy center
National Center for Education Statistics
Federal Interagency Forum on Child and Family Statistics – Childstats.gov
Annenberg Institute for School Reform
NIEER – National institute for early education research
Education Development Center
NCTE National council of teachers of English
NEA early childhood division
SERC
International Reading Association
NAEYC National association for the education of young children
National center for family literacy
Harvard family research project
Even start
Barbara Bush Foundation for Family literacy
Ct State Department of Education
Greater Hartford Literacy Council
Literacy USA – national alliance of literacy coalitions
National institute for literacy
The Literacy Web – Uconn
North Central Regional Educational Laboratory NCREL
National Even Start association
National Head Start association
CIERA Center for the improvement of early reading achievement
National childcare information center
American library association
Department of Education / IES What Works Clearinghouse
And Other links on these sites

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