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Scholastic Inc.
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10 Big Ideas
About
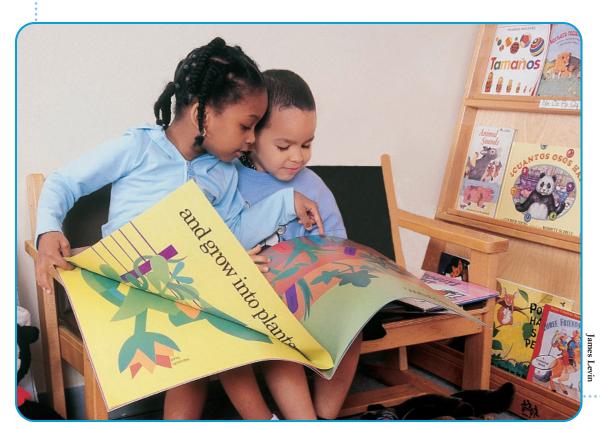# Early Childhood Education

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A child's first years are a time of amazing physical, social, emotional, cognitive, and linguistic growth. Young children set out as avid explorers seeking to understand the world and their place in it. For children to succeed in kindergarten and beyond, their natural inclination needs to be systematically supported and actively engaged in powerful learning experiences. Research is dramatically revealing just how much complex knowledge children can master at much earlier ages than was previously documented.

Children's experiences in their first years have a profound impact on the course of the rest of their lives. Evidence now proves not only the dynamic learning potential of children when they are in responsive, nurturing, stimulating environments, but also the detrimental effect to children when they are deprived of these opportunities.

In the past 25 years in this country, the locus of young children's learning has shifted. Well over half of all mothers with children under three years old are in the workforce. By choice and necessity, more children than ever before in our nation's history spend significant amounts of time in an out-of-home environment. At the same time, the requirements for children's school readiness upon entering kindergarten have risen considerably, including articulated standards in many states.

These changing demographics speak to both the tremendous need and opportunity for research-based, practice-proven early childhood education. Early childhood education programs can and do play a pivotal role in providing crucial learning experiences. Extensive quantitative analysis firmly establishes that high-quality centers for young children have a long-term, positive effect on children's well-being and academic success.

What constitutes a high-quality learning environment for young children? The body of scientific research about early childhood learning, growth, and development has not only provided invaluable insight into this process, but also carries tremendous practical implications. Findings from research, when combined with a summation of best practice, comprise a definitive understanding of how to create successful opportunities for our youngest of learners. We now know what works in early childhood education.

We know that children need rich language and literacy experiences. These include particular concentration on the complex conversations that will ensure their oral language development, a wide variety of opportunities with books and print, and focused attention to the building blocks of early literacy. Language and literacy development should take the lead within a comprehensive, cohesive, and integrated curriculum—one that provides rigorous learning opportunities that build on children's eagerness to understand the world and addresses all the domains of children's development, including specific content areas that prepare them for school. In these early years, this curriculum must be developmentally responsive and attend to their social, emotional, and physical, as well as cognitive growth. Learning experiences should actively build new knowledge on children's existing understandings, in part through purposeful play and exploration.

> **Language and literacy development should take the lead within a comprehensive, cohesive, and integrated curriculum—one that provides rigorous learning opportunities that build on children's eagerness to understand the world and addresses all domains of children's development.**

Ongoing professional development for early childhood educators is essential to the quality of any program. Children need teachers who are nurturing, supportive, and encouraging while offering them appropriate challenges and stimulation. Instruction should offer a balance of teacher direction with less-directed explorations that children choose and initiate. Appropriate assessment, both formal and informal, should be ongoing and always inform instruction. In this aspect, as in all aspects of children's learning, strong connections and partnerships with children's families are vital.

It is crucial for early childhood education to attend to and celebrate the diversity of each child's own culture, family background, experiences, learning style, interests, temperament, and any special needs. In the context of the large number of second-language learners for whom Spanish is their first language, equity of Spanish resources is key. Underlying this—and all education—is the knowledge that each child is unique.

In the following pages, these significant findings about how young children can develop to their fullest potential are more deeply examined by focusing on ten important ideas about teaching and learning in early childhood, the specific research that substantiates those ideas, and how the *Scholastic Early Childhood Program* puts this understanding into practice.

Children's early experiences are critical to their learning, growth, and development.

John Fortunato

Research Implications

Children require opportunities that offer

- nurturing relationships with adults.
- rich language and literacy experience.
- social interaction.
- substantive cognitive stimulation.
- in-depth content learning.
- exploration of the world around them.
- appropriate physical activity.
- opportunities for self-expression.

The character of young children's interactions with people and their environment has a demonstrable effect on their chances of success in preschool, kindergarten, elementary school and beyond *(National Research Council & Institute of Medicine, 2000)*. The significance of children's early experience in shaping their lives is underscored by recent documentation of how the brain itself continues to develop long after birth *(Posner et al., 1998; Kuhl et al., 1992)*. Cognitive stimulation affects both the number and kind of neural connections that are made within the brain *(Carnegie Foundation Report, 1994; Quartz & Sejnowski, 1997)*.

Research is beginning to delineate the key circumstances that will enable children to realize their potential. These include: nurturing relationships with adults; experiences that encourage social interaction; varied opportunities for expression; appropriate physical activity; cognitive challenges; opportunities to explore their world; and involvement with language, print, and other forms of communication *(Brazelton & Greenspan, 2000; Denton & West, 2002; Whitehurst & Lonigan, 2001)*.

Previously the socioeconomic background of children has been linked to their school achievement, but current research has refined this thinking with the understanding that the quality of children's experiences is critical, which it is possible for all types of caregivers to provide *(Collins et al., 2000; Maccoby, 1999; Werner, 2000; Ramey & Ramey, 1999)*. Yet too many children are not being provided these experiences. One out of three American children enters kindergarten without the requisite skills for success *(Rock & Pollack, 2002)*.

However, there is clear and quantitative documentation of the positive effect of high-quality preschool programs, beginning with the landmark Abecedarian study. Early education can truly endow children with the necessary foundation for future learning *(Ramey & Campbell, 1991; Campbell et al., 2002; Broberg et al., 1997; NICHD Early Child Care Research Network, 2000; NCES, 2002)*.

Research Into Practice

Scholastic Early Childhood Program

The program prepares PreKindergarten children to enter kindergarten with the language, early literacy, mathematics, social/emotional, and cognitive skills necessary for learning and early reading success. The program addresses all nine areas of the PreKindergarten Curriculum Guidelines: Language and Early Literacy, Math, Science, Social Studies, Fine Arts, Health and Safety, Personal and Social Development, Physical Development, and Technology. Personal and Social Development, in particular, are addressed integratively, as its own curriculum.

Children take an individual path within the course of learning and development.

Ross Whitaker

Research Implications

Children's uniqueness requires support for

- English language acquisition.
- their first language, with children learning English as a second language.
- individual approaches to learning and learning styles.
- diversity of culture and family background.
- a variety of special needs.

A long-standing body of research has provided substantial knowledge of how children develop and their general cognitive, physical, and psycho-social milestones. In building on this foundation, social scientists are now paying increased attention to the unique path each child traverses within a developmental continuum *(National Research Council, 2001)*. Understanding the fluid character of development has expanded the concepts of what children can achieve at different ages and the complex factors that affect each child.

Not only does each child have an individual genetic makeup, but also every child brings to bear a particular set of experiences. Children differ in their physical development, and in some cases may have physical disabilities; they have different interests, temperaments, and styles of social interaction *(Krechevsky & Seidel, 1998)*. Children vary widely in their approaches and dispositions toward learning, as well as in areas of knowledge related to formal school *(Kagan, 1994)*.

Evidence now points to the importance of the social and cultural context in which children learn and the influence of these factors on children's development *(Gordon, 1997; Hilliard, 2001; Delpit, 1995)*. Earlier research tended to focus on a deficit model of variance from the normative culture; however, important new work is being done in understanding the positive impact of cultural diversity and how specific backgrounds may differ from the mainstream without being perceived as negative *(August & Hakuta, 1997; Coll & Magnuson, 2000)*. This has significant implications in terms of children for whom English is not their first language.

Research substantiates the vital importance of not viewing children as deficient in language ability per se, but of providing support in their home language *(Dyson & Millward, 2001; Biemiller, 1999)*. Developing children's home language while they are learning English underscores that knowing more than one language is a cognitive advantage; and cultural variation, overall, is a personal and social asset *(Garcia et al., 1995)*.

Research Into Practice

Scholastic Early Childhood Program

The program excels in providing full equity of instruction in English and Spanish as well as focused instruction for meeting the individual needs of children with Special Needs and English-Language Learners. Rich Spanish resources include big and little books and full translation of daily lessons. Extensive support is provided for English-Language Learners as well as modification of teaching for different abilities and special needs. To meet the needs of different learning styles, the program includes posters, big and little books, manipulatives, and audiocassettes.

During a child's first years, language development is crucial.

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Research Implications

Children's language develops through

- a language-rich environment.
- complex conversations about ideas and opinions.
- hearing and learning new vocabulary.
- discussing books that are read aloud.
- conversing with adults during daily routines and activities.

The inseparable link between children's early language skills and later reading abilities is being affirmed by a growing body of research *(Hart & Risley, 1995; Walker et al., 1994)*. Cumulative evidence also indicates that the language and literacy capabilities children have in kindergarten strongly predict their achievement later in life *(Cunningham & Stanovich, 1997)*. Children use language for varied purposes. Language and literacy development is not only vital to reading skills and overall cognitive development, but recent research reveals that it plays an important role in children's social competencies *(Regalado et al., 2001; Lonigan et al., 1999)*.

In order to develop their language capabilities, children need a language and conversation-rich environment. Research demonstrates that the number of words and variety of conversations children hear affect the speed of their language growth *(Snow et al., 1995)*. Children learn new words through their participation in high-level conversations *(Beals, 1997)*. Children's vocabulary is a key component of literacy success *(Stahl, 1998; Beck, McKeown, & Kukan, 2002)*, and the extensiveness of conversations in the home correlates to a wide differentiation in the number of words children know upon entering school *(Hart & Risley, 1999)*. In addition, children learning English as a second language are more likely to become fluent when they are already familiar with the vocabulary in their primary language *(NAEYC/IRA, 1998)*.

Studies have firmly established the importance of reading aloud as one of the most important activities for reading success *(Bredekamp, Copple, & Neuman, 2000)*. However, simply reading aloud to children does not by itself impact children's reading abilities; dialogue about and beyond the immediate context of the book is critical *(Whitehurst & Lonigan, 1998; Dickinson & Tabors, 2001)*. Overall, children learn by talking with adults: by relating personal experience and offering opinions *(Burns, Griffin, & Snow, 1999)*.

Research Into Practice

Scholastic Early Childhood Program

Each day in the program begins with lessons that develop children's oral language including vocabulary, contextual use of speech and syntax, and oral comprehension abilities. Lessons for developing children's expressive and receptive language are provided in English and Spanish. All lessons support English-Language Learners through proven strategies and instructional methods. Children develop oral language skills and competencies through songs, poetry, multiple-session read aloud lessons, pictures of new vocabulary words, speaking and listening activities, and shared reading.

Early literacy provides a strong foundation for children's reading success.

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Research Implications

To develop literacy, children need a strong foundation of

- immersion in a language and print-rich environment.
- understanding that text has meaning.
- awareness of concepts of print.
- alphabetic knowledge.
- phonological awareness.
- grasping sound/symbol relationships.

The foundation for literacy is built long before children begin formal reading instruction. Children who enter school with more prior knowledge are at an advantage in learning to read *(Snow et al., 1995)*. On the other hand, children who begin school with less knowledge are often unable to acquire the prerequisites quickly enough to keep up with reading instruction. As they progress through school, these children tend to fall further behind in reading skills, a cycle that has been described as the "Matthew Effect" *(Stanovich, 1986)*.

For young children starting on this lifelong journey, learning to read is a complex task of coordinating many cognitive processes *(National Reading Panel, 2000)*. Essential elements in the early years have been identified as oral language development, print awareness, alphabetic knowledge, and phonological awareness *(Burns, Griffin, & Snow, 1999)*. Phonemic awareness is an important component of this process and may be reinforced through activities such as identifying picture names beginning with the same sounds and blending sound units into words *(Schatschneider et al., 1999; Adams et al., 1996)*.

In learning to read, children must unlock the relationships between the sounds of words and the alphabet *(Chall & Popp, 1996; Torgeson, 1998)*. Children's ability to do this is a strong predictor of reading success *(Stanovich, 1993; Vellutino, Scanlon, & Sipay et al., 1996)*. Developing phonemic awareness has been shown to be most effective when connected to helping children understand the alphabet and letter/sound relationships *(Snow, Burns, & Griffin, 1998)*. In addition, direct instruction in alphabetic coding and sound/symbol relationships (phonics) facilitates reading acquisition *(Lyon & Moats, 1997)*.

A deep grasp of the meaningfulness of print is key to reading success. To acquire this understanding, children need broad exposure to books as well as labels, signs, and other environmental print *(Neuman & Roskos, 1997; Roberts, 1998)*. For children to progress to competent reading requires contextual reading, and this is best accomplished by exposure to reading where words are in a meaningful context *(Strickland, 1998)*.

Research Into Practice

Scholastic Early Childhood Program

The program provides language and early literacy lessons that support age-appropriate development in oral language, phonological awareness, print awareness, and alphabetic knowledge. It immerses children in a high-quality language and literacy-rich environment with nonfiction and fiction books, posters, audiocassettes, songs, and charts, among other materials and resources. Language and vocabulary are developed in the context of the theme and associated literature. Teacher-directed instruction is provided daily in phonological awareness; as well, instruction in letter sounds, letter forms, and letter/sound associations prepares children for reading in kindergarten.

Essential curriculum deepens children's knowledge of themselves and the world around them.

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Research Implications

Early childhood curriculum should

- be cohesive and comprehensive.

- integrate cognitive, social/
emotional and physical domains,
and subject areas.

- provide the rigor that meets
children's capacities.

- develop children's grasp of key
concepts.

- encourage problem-solving
and metacognition.

Research is affirming that young children are capable of understanding more complex concepts than has ever been documented before *(National Research Council, 2000; National Research Council and Institute of Medicine, 2000; Committee for Economic Development, 2002)*. Young learners eagerly seek to acquire information through observation and experimentation, and from an early age they develop surprisingly sophisticated ideas of how the world works *(DeLoache et al., 1998; Kuhl et al., 1992; Gopnik et al., 1999)*.

Quality early childhood education deploys children's natural inclination to make sense of their experience and encourages their understanding of essential concepts about the world *(Lally, 2000; Semlak, 2000)*. Research has established the importance of learning key concepts in a sequence and has begun to identify more specifically the early foundations of knowledge in areas such as literacy, mathematics, visual and performing arts, and science *(NAEYC & IRA, 1998; NAEYC & NCTM, 2002)*. Children also need opportunities to reflect, ask questions, and generate hypotheses, as well as multiple opportunities to learn and practice concepts over time *(Bredekamp & Copple, 1997)*.

In response to demands to provide a curriculum, too often programs have adopted curricula that focus on unimportant, intellectually shallow content *(Espinosa, 2002)*. Early childhood curriculum should not only offer cognitive challenges, but be developmentally appropriate as well *(Frede, 1998)*. Curriculum for young children must be based on concrete experience and focused on relationships, communication, and exploration of the environment; it should not be a scaled back version of curriculum for older children *(NAEYC & NAECS/SDE, 2002)*. A high-quality curriculum is thoughtfully planned, comprehensive, cohesive, and integrated across domains, including attention to physical development, social and emotional competence, and positive attitudes toward learning *(Peth-Pierce, 2001; Raver, 2002)*.

Research Into Practice

Scholastic Early Childhood Program

The program is an integrated, comprehensive curriculum that develops key concepts with the depth and cohesiveness children need. It provides systematic learning opportunities in language and early literacy, mathematics, science, social studies, the arts, physical development, and personal and social development. Organized around themes that are relevant to children's life experiences, the program enables them to connect their in-school and outside-school experiences, which deepens comprehension and understanding. Children develop domain-specific knowledge within each content area as well as across domains. The curriculum builds an understanding of key concepts in particular areas; for instance, mathematics is carefully sequenced according to NCTM standards.

Children's active engagement stimulates their learning.

Liz Naples

Research Implications

Learning is engaged by

- relevance to children's interests.
- concrete exploration.
- meaningful activities connected to children's life experiences.
- purposeful play.
- opportunities to express preferences.

For young children, learning is a highly active and interactive process. Children build knowledge through purposeful involvement in activities that are relevant to their interests *(Neuman & Roskos, 1993)*. Young children are likely to become active participants in topics and learning activities that engage their natural curiosity and eagerness to make discoveries *(Raspa, McWilliam, & Ridley, 2001; National Center for Education Statistics, 2002)*. Moreover, concrete exploration is a key element in the learning process for children in the preschool years. Children are better able to understand and remember relationships, concepts, and strategies that they learn through meaningful experience that connects to their lives *(Bredekamp & Copple, 1997)*.

To promote active engagement, incorporating play is an important teaching strategy. Play offers opportunities for children to manipulate materials and have firsthand experience *(Franklin, 1999)*. Through play, children can directly explore broad and diverse aspects of the world, as well as concretely represent their thoughts and emotions in multiple ways *(Owocki, 1999; Bodrova & Leong, 1998)*. Play fosters the use of symbols and can thus be explicitly linked to language and literacy development *(Pellegrini et al., 1991; Sigel, 1993)*.

Purposeful play also helps children develop social interaction skills through relationships with peers *(Howes & Matheson, 1992)*. These peer interactions play a key role in children's social and emotional development as they progress from parallel to cooperative play *(Parker et al., 1995)*. In providing structures for play and other self-directed activities, teachers are able to offer valuable opportunities for children to exercise choice. Research has validated that young children benefit more from a learning environment in which they can express preferences about their activities *(Stipek et al., 1998; Hohmann & Weikart, 1995)*.

Research Into Practice

Scholastic Early Childhood Program

The program situates the teaching and learning in relevant real-world contexts that build on children's understanding of the world in which they live. It engages children's interests through its organization of ten themes that connect to children's life experiences. Subthemes within each theme encourage children to deepen their experience. Exploration of themes and other carefully selected topics that access children's curiosity are developed through the program's Learning Centers such as "ABC and Writing" and "Dramatic Play," which are structured to guide children's independent inquiries while offering choice. To facilitate this process, the program includes manipulatives, songs and charts, and other interactive resources that encourage active engagement.

Effective instruction is systematic, intentional, and supportive of the child.

James Levin

Research Implications

To provide effective instruction, educators should

- provide explicit instruction in key areas.

- create opportunities for children to make choices.

- build new knowledge on known concepts.

- scaffold children's learning.

- offer support and feedback.

Children learn through a dialectical process of problem-solving in a social context by receiving feedback on their actions and hypotheses *(Vygotsky, 1962).* Thus how adults interact with children is key to their construction of knowledge. In order to take advantage of learning opportunities, children need supportive adults who provide emotional security *(Howes & Smith, 1995; Pianta & Steinberg, 1992).* Young children whose caregivers offer generous verbal and cognitive stimulation and who are sensitive and responsive are more advanced in all areas of development than children not given these important inputs *(Lamb, 1998; Smith, 1998).* High-quality early childhood programs foster reciprocity in which teachers make overtures to children that build on their activities, prior knowledge, and skill level *(Weiss et al, 1992; Landry et al., 1997).*

Intentional, focused instruction should be based on clearly defined goals and embedded in daily routines *(NAEYC & NAECS/SDE, 2002; National Center for Education Statistics, 2002).* To achieve these goals, teachers need to provide both planned experiences and ones that emerge as an outgrowth of children's interests, offering a balance between teacher-centered and child-initiated activities *(Hepting & Goldstein, 1996).*

Moreover, children build knowledge by integrating new concepts and ideas into already existing understandings *(National Research Council, 2000).* In his defining work, Vygotsky identified the most advantageous arena of learning—in which children experience a challenge as they pursue a task but do not become frustrated—as the "zone of proximal development" *(Isenberg & Jalongo, 1997).* To meet children within this zone, teachers need to provide scaffolding that supports incorporating new skills and concepts into established ones *(Wood, 1998; Landry, 2001).*

Research Into Practice

Scholastic Early Childhood Program

The program balances teacher-directed instruction with child-initiated explorations. It is organized around routines based upon best practices in early childhood education. Each daily lesson includes Circle Time for teacher-directed, explicit instruction in oral language, phonological awareness, mathematics, and content area skills; Learning Centers and Teacher's Table for child-initiated individual, pair, and small group learning and teacher-led small group work respectively; and Story Time for teacher-directed instruction in language, early literacy skills, and content area concept knowledge. Along with each lesson, there is an informal observation section that helps ongoing assessment to inform instruction.

Teaching and assessment should inform each other to best serve each child.

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Research Implications

Appropriate assessment for young children should

- support and inform instruction.
- include formal and informal measures.
- use observation, investigation, and interviews, among informal assessments.
- consult and involve children's families.
- include authentic activities.
- attend to bilingual needs.

The primary role of assessment in early childhood education is to provide insight into the educational experiences that will be the most valuable for individual children *(Burns, 1996; Bodrova & Leong, 1996)*. Assessment should support and inform instruction *(Shepard, Kagan, & Wurtz, 1998)*. Teaching and assessment need to be inseparably fused in an ongoing cycle of refinement *(Meisels & Atkins-Burnett, 2000)*. The appropriate assessment and monitoring of children's learning contributes to decision-making about practice, designing programs, and planning curricula, and used as particular instruction *(Wiggins, 1998)*. To achieve these aims, teachers should use multiple methods of assessment over time, including observation, investigation, and interviews, as well as more formal assessments *(Shepard et al., 1998)*. In addition, educators need to be aware of the importance as well as the legal right of families to be involved in assessment decisions *(IDEA, 1997)*.

Early childhood educators need to develop a deep understanding of the uses and limitations of a full range of assessment options. Curriculum-embedded assessments allow children to demonstrate their knowledge or skills through authentic engagement in classroom activities *(Jablon, 1999)*. Embedded assessment is especially important for bilingual children *(Jones, 2003)*. Ongoing observation and recording of children in action can yield crucial information about their interests and emerging understandings *(Helm, Beneke, & Stenheimer, 1998; Jablon, Dombro, & Dichtelmiller, 1999)*.

Formal assessment in the form of structured tests provide one measure of specific behaviors; most important is that children's learning be documented over time *(Snow & Jones, 2001)*. Functional assessment focused on how individual children accomplish specific goals can be particularly useful with young children *(Greenspan, 1996)*. For all children, it is individually, culturally, and linguistically appropriate measures that will provide educators with vital information they need to promote and maximize learning *(Stiggins, 2001; McAfee & Leong, 2002)*.

Research Into Practice

Scholastic Early Childhood Program

The program provides informal and formal assessments that are administered on a regular basis and are embedded in instruction and learning. They are designed to determine children's progress and abilities within each domain so that teachers can modify instruction as needed. Informal assessments include Daily Work and Observations, Portfolio Review, and Learning Over Time assessment recommendations. Formal assessments include Book and Print Awareness, Phonological Awareness, Letter Knowledge, Writing, and Checklists for monitoring the PreKindergarten Curriculum Goals.

Developing teacher expertise improves the quality of children's education.

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Research Implications

Effective professional development requires

- ongoing support, including training and workshops.
- development of knowledge and basis in research.
- education in child development.
- summation of best practices.
- opportunities for collaboration.

A growing body of evidence now points to the key role of the educator in how much a young child learns *(National Research Council and National Institute of Medicine, 2000)*. In fact, the knowledge and skills of the teacher account for a greater difference in academic achievement than any other single factor *(Darling-Hammond et al., 1999)*. The professional development of teachers has been shown to be integrally related to the quality of early childhood programs and thus the overall effect of those programs in having a positive outcome for children *(Howes et al., 1992; Kontos et al., 1997)*.

Extended professional development, often with coaching, is key to effective curriculum implementation *(National Research Council, 2001)*. Teacher education and training has also been shown to be related to such important teaching characteristics as attunement to diversity, ability to work with administrators and families, and sensitivity and responsiveness to children *(Howes & Smith, 1995)*.

While some correlations have been drawn between the level of education and teachers' effectiveness, specific training in early childhood education as well as contextualized staff development has been demonstrated to be of equal if not more importance *(National Research Council, 2000)*. Studies have revealed that better in-service training can offset the lack of formal education for early childhood teachers *(Epstein, 1999)*.

Effective professional development programs are job-embedded, continuous, collaborative, and research-based *(Epstein, 1993; Joyce & Showers, 2002)*. The content of professional development activities should revolve around teachers' authentic experiences and focus on the goals, materials, curriculum, and characteristics of the children that are part of the teachers' daily realities *(NSDC, 2001)*.

Research Into Practice

Scholastic Early Childhood Program

The program provides professional development Teacher Workshops and a library of academic readings that are embedded into the curriculum. The 12 Teacher Workshops are based upon articles written by noted experts such as Dr. Susan Neuman, Dr. Stanley Greenspan, and Lillian Katz. The 12 Teacher Workshops are designed to support teachers' academic knowledge and instructional practices. The Workshops are: Phonological Awareness, Print Knowledge, Literacy and Play, Building Language Through Song, Language and Cultural Heritage, Nonfiction Books, Geometry and Young Children, The Math In Music, Discovery Science, Fostering Responsibility, The Project Approach, and Children With Special Needs.

Partnering with families furthers children's learning.

James Levin

Research Implications

Strong family partnerships are built through

- connecting with families during daily routines, such as dropping off and picking up children.

- helping families feel comfortable with teachers and the school.

- teachers' support of children's culture and family environment.

- developing concrete ways to bridge school and home learning.

Children experience greater success in school when their families are involved in their education *(Meisels & Reynolds, 1999)*. In fact, scientific evidence has demonstrated a direct quantitative link between parental involvement and academic achievement *(Izzo et al., 1999; Marcon, 1999)*. It has been generally understood that partnering with families helps teachers contextualize learning by connecting children's life experiences and skills from the home with school learning. Classroom content and processes are enriched by infusing children's varying experience and approaches to learning, as well as by directly involving parents in lending their knowledge and skills to the school *(Porche, 2001)*. Research also points to how parental involvement in the school enriches the home environment for children, helping parents provide the pivotal language and stimulation-rich environment their children need *(Snow, 1997)*. Family-school connections can help parents understand their children's particular strengths as learners and specific methods to support their learning at home *(Frede, 1998)*. Studies have indicated that parents who have been involved in field trips and joint projects were able to use these experiences as models to spark their further interaction with their children *(Kreider, 2002)*.

Evidence suggests that parental involvement is strongly affected by how welcome parents feel at school and how comfortable they are with teachers *(Pianta, 1996; U.S. Department of Education, 1997)*. Teachers and childhood educators bear the responsibility of bridging cultural divisions as well as bringing home diversity into the classroom environment *(Bowman, 1997)*. It is important to find opportunities to make children's primary caregivers feel involved in school, in both formal and informal ways, and to create joint pathways of communication between families and schools *(White et al., 1992)*.

Research Into Practice

Scholastic Early Childhood Program

The program provides teachers with resources to help educate parents about their children's learning and development, as well as early language and cognitive development activities that encourage parents' becoming partners with the school in their children's education. A vital resource of the program is *Creating Family Partnerships: A Bilingual Guide to Family Involvement.* Information resources are available in English and Spanish and include the following: Letters to Families, Mini-Books, and easy-to-use activity ideas for each theme. Also included are resources for Meeting and Greeting Families, Teacher-Family Conferences, Family Meetings, Family Home Projects, and Family Learning Night.

Summary of the *Scholastic Early Childhood Program*

The *Scholastic Early Childhood Program* (*SECP*) is a cohesive and comprehensive PreKindergarten program that is structured around the pedagogy of systematic, developmentally appropriate curriculum, effective instructional methodology, and attention to cognitive and affective skill development. The program is based upon the conjuncture of best practices in early childhood education and key research findings about the relationship between what is determined by genetic factors and what is shaped by a child's environment and interactions. This research-based foundation addresses the critical elements of a successful high-quality curriculum and environment for young learners. These include effective curriculum, assessment and evaluations, relevant professional development, and strong school/home connections and family support.

SECP Curriculum Model

The *Scholastic Early Childhood Program* is designed to support children's development of knowledge, skills, and processes that will help them make sense of themselves and the world around them. The *SECP* curriculum is thematic, integrated, and replete with culturally relevant materials in both English and Spanish. An integrated-curriculum approach puts the development of language and early literacy first within the integration of the following domains: mathematics, science, social studies, the arts, physical development, and personal and social development. *SECP* provides planning flexibility with themes and lessons that adapt easily to classroom needs, including grouping flexibility through suggestions and activities for different collaborative settings.

SECP Curriculum Goals

The curriculum goals of the *Scholastic Early Childhood Program* are implemented through organization around real-world themes. The themes include Friends and School, Home and Family, Inside and Outside Me, Staying Well/Staying Safe, Our Community, Working and Playing Together, Make It/Build It, Let's Explore, Animals and Where They Live, and Everything Changes. These relevant themes build on children's current understanding of the world in which they live, enabling them to develop new knowledge, thus increasing their possibilities of success. In addition to engaging children within the reach of their conceptual knowledge, the program is constructed to address developmental differences in children. *SECP* helps teachers organize their classroom and make modifications for children with special needs. Teacher materials are provided for working with and modifying the curriculum for all children.

SECP Instructional Design

The instructional design of *SECP* is based upon a model of socio-cultural theory that promotes the importance of educators and caregivers providing young children with informed instruction, supporting children as they actively investigate novel concepts, skills, and processes and reexamine known ones. This instructional design allows for both teacher-initiated direct instruction and child-initiated explorations. *SECP* addresses children within their zone of proximal development, as well as providing instruction that scaffolds children to acquire new knowledge or refine their current understandings. The central goal of the program is to help guarantee that young children will develop the critical skills, knowledge, and life habits to become successful learners, especially in their language and literacy development. Thus the *Scholastic Early Childhood Program* is designed to ensure that children's language and early reading skills will develop in accordance with the four crucial areas outlined by the *Early Reading First* legislation.

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References

Adams, M., Foorman, B., Lundberg, I., & Becker, T. (1996). *Phonemic awareness in young children.* Baltimore: Brookes Publishing Co.

August, D. & Hakuta, K. (Eds). (1997). *Improving schooling for language-minority children: A research agenda.* National Research Council and Institute of Medicine. Washington, DC: National Academy Press.

Beals, D. (1997). Sources of support for learning words in conversation: Evidence from mealtimes. *Journal of Child Language,* 24, 673–694.

Beck, I.L., McKeown, M.G., & Kucan, L. (2002). *Bringing words to life: Robust vocabulary instruction.* New York: Guilford.

Biemiller, A. (1999). *Language and Reading Success.* Newton Upper Falls, MA: Brookline Books.

Block, C.C. (2003). *Improving Comprehension Instruction: Rethinking Research, Theory, and Classroom Practice.* San Francisco, CA: Jossey-Bass.

Bodrova, E. & Leong, D.J. (1996). *Tools of the mind: The Vygotskian approach to early childhood education.* Columbus, OH: Merrill.

Bodrova, E. & Leong, D.J. (1998). Development of dramatic play in young children and its effects on self regulation: The Vygotskian approach. *Journal of Early Childhood Teacher Education,* 19, 115–124.

Bowman, B. (1997). Preschool as family support. *Advances in Early Education and Day Care: Family Policy and Practice on Early Child Care,* (9), 157–170. Greenwich, CT: JAI Press Inc.

Brazelton, T.B. & Greenspan, S.I. (2000). *The irreducible needs of children: What every child must have to grow, learn, and flourish.* Cambridge, MA: Perseus Publishing.

Bredekamp, S. & Copple, C. (1997). *Developmentally appropriate practice in early childhood programs.* Washington, DC: NAEYC.

Broberg, A.G., Wessels, H., Lamb, M.E., & Hwang, C.P. (1997). Effects of day care on the development of cognitive abilities in 8-year olds: A longitudinal study. *Developmental Psychology* 33 (1), 62–69.

Burns, M.S. (1996). Dynamic assessment: Easier said than done. In M. Luther, E. Cole, & P. Gamlin (Eds.), *Dynamic assessment for instruction: From theory to application.* New York, Ontario, Canada: Capture Press Inc.

Burns, M.S., Griffin, P., & Snow, C.E. (Eds.) (1999) *Starting Out Right. A Guide to Promoting Children's Reading Success.* Committee on the Prevention of Reading Difficulties in Young Children, Commission on Behavioral and Social Sciences and Education. National Research Council. Washington, DC: National Academy Press.

Campbell, F.A., Ramey, C.T., Pungello, E.P., Sparling, J., & Miller-Johnson, S. (2002). Early childhood education: Young adult outcomes from the Abecedarian Project. *Applied Developmental Science*, 6, 42–57.

Carnegie Foundation Report (1994). *"Starting Points: Meeting the needs of our youngest children."* New York: Carnegie Corporation of New York.

Chall, J.S. (1983). *Stages of reading development.* New York: McGraw-Hill.

Chall, J.S. & Popp, H.M. (1996). *Teaching and assessing phonics.* Cambridge, MA: Educators Publishing Service.

Coll, C.G. & Magnuson, K. (2000). Cultural differences as sources of developmental vulnerabilities and resources. In P. Shonkoff & S.J. Meisels (Eds.), *Handbook of early childhood intervention.* (2nd ed.) New York: Cambridge University Press.

Collins, W.A., Macoby, E.E., Steinberg, L., Hetherington, E.M., & Bornstein, M.H. (2000). Contemporary research on parenting: The case for nature and nurture. *American Psychologist,* 55, (2), 218.

Committee for Economic Development (2002). *Preschool for all: Investing in a productive and just society.* New York: Author.

Cunningham, A.E. & Stanovich, K.E. (1997). Early reading acquisitions and its relations to reading experience and ability 10 years later. *Developmental Psychology,* 33 (6) 934–945.

Darling-Hammond, L., Wise, A.E., & Klein, S.P. (1999). *A license to teach. Raising standards for teaching.* San Francisco, CA: Jossey-Bass, Inc.

DeLoache, J.S., Miller, K.F., & Pierroutsakos, S. (1998). Reasoning and problem-solving. In D. Kuhn & R.S. Siegler (Eds.), *Handbook of Child Psychology.* (2), 801–850. New York: John Wiley & Sons, Inc.

Delpit, L. (1995). *Other people's children.* New York: Norton.

Denton, K. & West, J. (2002). *Children's reading and mathematics achievement in kindergarten and first grade.* (NCES 2002–125). U.S. Department of Education, NCES. Washington, DC: U.S. Government Printing Office.

Dickinson, D.K. & Tabors, P.O. (Eds.) (2001). *Beginning literacy with language: Young children learning at home and school.* Baltimore: Brookes Publishing Co.

Dyson, A. & Millward, A. (2001) *Schools and special needs: Issues of innovation and inclusion.* London: Paul Chapman Publishing, Limited.

Epstein, A.S. (1993). *Training for quality: Improving early childhood programs through systematic inservice training.* Monographs of the High/Scope Education Foundation, No. 9. Ypsilanti, MI: High/Scope Press.

Epstein, A. S. (1999). Pathways to quality in Head Start, public school, and private nonprofit Early Childhood Programs *Journal of Research in Childhood Education,* 13(2).

Espinosa, L. (2002). High Quality Preschool: Why we need it and what it looks like. NIEER Policy Briefs 1. Online: http://nieer.org/resources/policybriefs/1.pdf

Franklin, M. (1999). *Meaning of play in the developmental interaction tradition.* Bronxville, NY: Sarah Lawrence College.

Frede, E.C. (1998). Preschool program quality in programs for children in poverty. In W.S. Barnett & S.S. Boocock (Eds.), *Early care and education for children in poverty: Promises, programs, and long-term outcomes.* Buffalo, NY: State University of New York Press.

Garcia, E. E., McLaughlin, B., Spodek, B., & Saracho, O. N. (Eds.). (1995). Meeting the challenge of linguistic and cultural diversity in early childhood education. *Yearbook in Early Childhood Education* (Vol. 6). New York: Teachers College, Columbia University.

Greenspan, S.I. (1996). Assessing the emotional and social functioning of infants and young children. In *New visions for the developmental assessment of infants and young children,* Meisels, S.J. & Fenichel, E. (Eds) Washington, DC: Zero to Three.

Gopnik, A., Meltzoff, A.N., & Kuhl, P.K. (1999). *The scientist in the crib: What early learning tells us about the mind.* New York: William Morrow & Co.

Gordon, E. (1997). Culture and the sciences of pedagogy. *Teachers College Record,* 97, 32–46.

Hart, B. & Risley, T.R. (1995). *Meaningful differences in the everyday experience of young American children.* Baltimore: Paul H. Brookes Publishing Co.

Hart, B. & Risley, T.R. (1999). *The social world of children learning to talk.* Baltimore: Paul H. Brookes Publishing Co.

Helm, J.H., Beneke, S. & Steinheimer, K. (1998). *Windows on learning: Documenting young children's work.* New York: Teachers College Press.

Hepting, N.H. & Goldstein, H. (1996). Requesting by preschoolers with developmental disabilities: Videotaped self-modeling and learning of new linguistic structures. *Topics in Early Childhood Special Education,* 16 (3), 407–427.

Hilliard, A. (2001). "Race" identity hegemony and education: What do we need to know now? In W. Watkins, J. Lewis, & V. Chou (Eds.), *Race and education.* Boston: Allyn and Bacon.

Hohmann, M. & Weikart, D. (1995). *Educating Young Children.* Ypsilanti, MI: High/Scope Press.

Howes, C., Phillips, D.A., & Whitebook, M. (1992). Thresholds of quality: Implications for the social development of children in center-based child care. *Child Development,* 63, 449–60.

Howes, C. & Smith, E.W. (1995). Relations among child care quality, teacher behavior, children's play activities, emotional security, and cognitive activity in child care. *Early Childhood Research Quarterly,* 10, (4) 381–404.

IDEA (Individuals with Disabilities Act) (1997). Amendments. 20 U.S.C. 1400 et seq.

Isenberg, J.P. & Jalongo, M.R. (1997). *Creative expression and play in early childhood.* Upper Saddle River, NJ: Merrill.

Izzo, C.V., Weissberg, R.P., Kasprow, W.J., & Fendrich, M. (1999). A longitudinal assessment of teacher perceptions of parental involvement in children's education and school performance. *American Journal of Community Psychology,* 27 (6), 817–839.

Jablon, J. (1999). *The power of observation.* Washington, DC: Teaching Strategies Inc.

Jablon, J.R., Dombro, A.L., & Dichtelmiller (1999). *The power of observation.* Washington, DC: Teaching Strategies.

Jones, J. (2003). *Early literacy assessment systems: Essential elements.* Princeton, NJ: Educational Testing Service.

Joyce, B. & Showers, B. (2002). *Student achievement through staff development.* Alexandria, VA: Association for Supervision & Curriculum Development.

Kagan, J. (1994). *Galen's prophecy.* New York: Basic Books.

Kontos, S., Howes, C., & Galinsky, E. (1997). Does training make a difference to quality in family care? *Early Childhood Research Quarterly,* 12, 351–372.

Krechevsky, M. & Seidel, S. (1998). Minds at work: Applying multiple intelligences in the classroom. In R.J. Sternberg & W.M. Williams (Eds.), *Intelligence, instruction and assessment: Theory into practice.* Mahwah, NJ: Lawrence Erlbaum Associates Inc.

Kreider, H. (2002). *Getting parents "ready" for kindergarten: The role of early childhood education.* Amherst, MA: Harvard Family Research Project. Retrieved April 20, 2002, from http://www.gse.harvard.edu/hfrp/pr…ne/resoources/research/kreider.html

Kuhl, P.K., Williams, K.A., Lacerda, F., Stevens, N., & Lindblom, B. (1992). Linguistic experience alters phonetic perception in infants by 6 months of age. *Science,* 255, 606–608.

Lally, J.R. (2000). Infants have their own curriculum: A responsive approach to curriculum planning for infants and toddlers. *Head Start Bulletin*, 67, 6–7.

Lamb, M.E. (1998). Nonparental child care: Context, quality, correlates. In W. Damon, I.E Sigel, & K.A. Renninger (Eds.), *Handbook of child psychology*: *Child psychology in practice,* 73–134. New York: John Wiley & Sons, Inc.

Landry, S.L., Smith, K.E., Miller-Loncar, C.L., & Swank, P.R. (1997). The role of child centered perspectives in a model of parenting. *Journal of Experimental Child Psychology,* 66 (3), 341–361.

Landry, S.L. (2001*). Supporting cognitive development in early childhood.* Address presented at the White House Summit on Early Childhood Cognitive Development, Washington, DC National Association for the Education of Young Children (1997). *Developmentally appropriate practices for young children (revised edition).* S. Bredekamp & C. Copple (Eds). Washington, DC: NAEYC.

Lonigan, C.J., Bloomfield, B.G., Anthony, J.L., & Bacon, K.D. (1999). Relations among emergent literacy skills, behavior problems, and social competence in preschool children from low- and middle-income backgrounds. *Topics in Early Childhood Special Education,* 19 (1), 40–54.

Lyon, R.G. & Moats, L.C. (1997). Critical conceptual and methodological considerations in reading intervention research. *Journal of Learning Disabilities*, 30 (6).

Maccoby, E.E. (1999). Parenting and the Child's World Conference: *Multiple Influences on Intellectual and Social-Emotional Development.* Presentation at the NICHD Conference on Parenting, Bethesda, MD, August 2–3.

Marcon, R.A. (1999). Differential impact of preschool models on developmental and early learning of inner-city children: A three-cohort study. *Developmental Psychology,* 35 (2), 358–375.

McAfee, O. & Leong D. (2002). *Assessing and guiding young children's development and learning.* (3rd ed.) Boston: Allyn & Bacon.

Meisels, S. (1999) *Assessing readiness: The transition to kindergarten.* Baltimore: Brookes Publishing Co.

Meisels, S.J. & Atkins-Burnett, S. (2000). The elements of early childhood assessment. In J.P. Shonkoff & S.J. Meisels (Eds.), *Handbook of early childhood intervention.* (2nd ed.) New York: Cambridge University Press.

National Association for the Education of Young Children & International Reading Association (1998). *Learning to read and write: Developmentally appropriate practices for young children.* Joint Position Statement. Washington, DC: Author.

NAEYC & NAECS/SDE (2002). *Early learning standards: Creating the conditions for success*. Joint position statement. Washington, DC: NAEYC.

National Association for the Education of Young Children & National Council of Teachers of Mathematics (2002). *Early childhood mathematics: Promoting good beginnings.* Joint position statement. Washington, DC: NAEYC.

NCES (National Center for Education Statistics). (2002). *Children's reading and mathematics achievement in kindergarten and first grade.* Washington, DC: Author. Online: http://nces.ed.gov/pubs2002/2002125.pdf

National Reading Panel (2000). Report of the national reading panel: *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction: Reports of the sub-groups.* Rockville, MD: National Institute for Child Health and Human Development, Clearinghouse.

National Research Council (2000). *How people learn: Brain, mind, experience and school.* Committee on developments in the science of learning. Bradsford, J., Brown, A., & Cocking, R. (Eds.) Commission on Behavioral and Social Sciences and Education. Washington, DC: National Academy Press.

National Research Council (2001). *Eager to learn: Educating our preschoolers.* Committee on Early Childhood Pedagogy. B. Bowman, M. Donovan, & M. Burns, (Eds.) Commission on Behavioral and Social Sciences and Education. Washington, DC: National Academy Press.

National Research Council and Institute of Medicine (2000). *From neurons to neighborhoods: The science of early childhood development.* Committee on Integrating the Science of Early Childhood Development. Shonkoff, J.P. & Phillips D.A. (Eds.) Board on Children, Youth, and Families, Commission on Behavioral and Social Sciences and Education. Washington, DC: National Academy Press.

National Staff Development Council. (2002). What works in the elementary school results-based staff development. NSDC Publication. Oxford, OH: NSDC.

Neuman, S.B. & Roskos, K. (1993). Access to print for children of poverty: Differential effects of adult mediation and literacy-enriched play settings on environmental and functional print tasks. *American Educational Research Journal,* 30, 95–122.

Neuman, S.B. & Roskos, K. (1997). Literacy knowledge in practice: Contexts of participation for young writers and readers. *Reading Research Quarterly,* 32 (1), 10–32.

Neuman, S.B., Copple, C., & Bredekamp, S. (2000). *Learning to read and write: Developmentally appropriate practices for young children.* Washington, DC: NAEYC.

Owocki, G., (1999). *Literacy through play.* Portsmouth, NH: Heinemann.

Parker, J.G., Rubin, K.H., Price, J.M., & DeRosier, M.E. (1995). Peer relationships, child development, and adjustment: A developmental psychopathology perspective. In D. Cichetti & D. Cohen (Eds.), *Developmental Psychopathology: Risk, Disorder and Adaptation* 2, 96–161. New York: John Wiley & Sons, Inc.

Pellegrini, A.D., Galda, L., & Dresden, J. (1991). A longitudinal study of the predictive relations among symbolic play, linguistic verbs, and early literacy. *Research in the Teaching of English,* 25 (2), 219–235.

Peth-Pierce, R. (2001). *A good beginning: Sending America's children to school with the social and emotional competence they need to succeed.* Monograph based on two papers commissioned by the Child Mental Health Foundations and Agencies Network (FAN). Chapel Hill: University of North Carolina.

Pianta, R.C. (1996). *High risk children.* New York: Routledge.

Pianta, R.C. & Steinberg, M. (1992). Teacher-child relationships and the process of adjusting to school. 61–80. In R.C. Pianta et al. (Eds.), *The role of other adults in children's lives.* No. 57. San Francisco, CA: Jossey-Bass Inc.

Porche, M.V. (2001). Parent involvement as a link between home and school. In Dickinson, D.K. & Tabors, P.O., (Eds.). *Beginning literacy with language: Young children learning at home and school.* Baltimore: Brookes Publishing Co.

Posner, M.I., Rothbart, M.K., Thomas-Thrapp, L., & Gerardi, G. (1998). The development of orienting to locations and objects. *Visual Attention: Vancouver studies in cognitive science.* (8) R.D. Wright (Ed.). New York: Oxford University Press.

Ramey, C.T. & Campbell, F.A. (1994). Effects of early intervention on intellectual and academic achievement: A follow-up study of children from low-income families. *Child Development,* 65, 684–698.

Quartz, S. & Sejnowski, T.J. (1997). The neural basis for cognitive development: A constructivist manifesto. *Behavioral and Brain Sciences,* 20 (4), 537–596.

Ramey, C.T. & Ramey, S.L. (1999). *Right from birth: Building your child's foundation for life birth to 18 months.* New York: Goddard Press.

Raspa, M.J., McWilliam, R.A. & Ridley, S.M. (2001). Childcare quality and children's engagement. *Early Education and Development,* 12, 209–24.

Raver, C. (2002). Emotions matter: Making the case for the role of young children's emotional development for early school readiness. *SRCD Social Policy Report,* 16 (3). Ann Arbor, MI: Society for Research in Child Development.

Regalado, M., Goldenberg, C., & Appel, E. (2001). Building community systems for young children: Reading and early literacy. In N. Halfon, E. Shulman, & M. Hochstein (Eds.), *Building community systems for young children.* UCLA Center for Healthier Children, Families and Communities.

Roberts, B. (1998). "I No EvrethENGe": What skills are essential in early literacy? In Neuman, S.B., & Roskos, K. (Eds.), *Children achieving: Best practices in early literacy.* Newark, DE: International Reading Association.

Rock, D. & Pollack, J. (2002). Early childhood longitudinal study—Kindergarten class of 1998–99 (ECLS–K), *Psychometric Report for Kindergarten Through 1st Grade* (NCES 2002–005). U.S. Department of Education, NCES. Washington, DC: U.S. Government Printing Office.

Semlak, S. (2000). Curriculum in Early Head Start. *Head Start Bulletin, 69,* 14–15.

Schatschneider, C., Francis, D.J., Foorman, B.R., Fletcher, J.M., & Mehta, P. (1999). The dimensionality of phonological awareness: An application of item response theory. *Journal of Educational Psychology,* 91, 439–450.

Shepard, L., Kagan, S.L., & Wurtz, E. (1998). *Principles and recommendations for early childhood assessments.* Washington, DC: National Education Goals Panel.

Sigel, I.E. (1993). Educating the young thinker: A distancing model of preschool education. In J.L. Roopnarine & J.E. Johnson (Eds.), *Approaches to early childhood education*. Columbus, OH: Merrill/Macmillan.

Smith, S. (1998). *The past decade's research on childcare quality and children's development: What we are learning, directions for the future.* Paper prepared for a meeting on "Child Care in the New Policy Context," sponsored by the Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services, held in Bethesda, MD on April 30–May 1, 1998.

Snow, C.E., Tabors, P.O., Nicholson, P.A., & Kurland, B.F. (1995). SHELL: Oral language and early literacy skills in kindergarten and first-grade children. *Journal of Research in Childhood Education,* 10 (1), 37–48.

Snow, C.E. (1997). Connecting home and school. *Harvard Education Letter.* Cambridge: MA. Online http://www.edletter.org/past/issues/1997-ja/snow.shtml

Snow, C.E., Burns, M.S., & Griffin, P. (1998) Preventing reading difficulties in young children. In C.E. Snow, M.S. Burns, & P. Griffin (Eds.), Consortium on reading excellence (CORE), *Reading research anthology: The why? of reading instruction.* Novato, CA: Arena Press.

Stahl, S.A. (1998). Four questions about vocabulary knowledge and reading and some answers. In C. Hynd (ed.), *Learning from text across conceptual domains*. Mahwah, NJ: Lawrence Erlbaum Associates Inc.

Stanovich, K.E. (1986). "Matthew Effect" on reading: Some consequences of individual differences in acquisition of literacy. *Reading Research Quarterly,* 21, 360–407.

Stanovich, K.E. (1993). The construct validity of discrepancy definitions of reading disability. In G.R. Lyon, D. Gray, J. Kavanagh, & N. Krasnegor (Eds.), *Better understanding learning disabilities: New views on research and their implications for education and public policies.* (273–308). Baltimore: Brookes.

Strickland, D.S. (1998). *Teaching phonics today: A primer for educators.* Newark, DE: International Reading Association.

Stiggins, R. (2001). The unfulfilled promise of classroom assessment. *Educational Measurement: Issues and Practice,* 20 (3), 5–15.

Stipek, D.J., Feiler, R., Byler, P., Ryan, R., Milburn, S., & Salmon, J. (1998). Good beginnings: What difference does the program make in preparing young children for school? *Journal of Applied Developmental Psychology,* 19, 41–66.

Torgesen, J.K. (1998). "Catch them before they fall: Identification and assessment to prevent reading failure in young children." *American Educator,* 22 Spring/Summer, 32–39.

U.S. Department of Education American Reads Challenge (1997). *Ready, Set, Read for Caregivers.*

Vellutino, F.R., Scanlon, D.M., Sipay, E.R., Small, S.G., Pratt, A., Chen, R., & Denckla, M.B. (1996). Cognitive profiles of difficult to remediate and readily remediated poor readers: Toward distinguishing between constitutionally and experimentally based causes of reading disability. *Journal of Educational Psychology*, 88, 601–638.

Vygotsky, L.S. (1962). *Thought and Language.* Cambridge, MA: MIT Press.

Walker, D., Greenwood, C., Hart, B., Carta, J. (1994). Prediction of school outcomes based on early language production and socioeconomic factors. *Child Development,* 65, 606–622.

Weiss, B., Dodge, K.A., Bates, J.E., & Pettit, G.S. (1992). Some consequences of early harsh discipline: Child aggression and a maladaptive social information processing style. *Child Development,* 63, (6), 1321–1335.

Werner, E. (2000). Protective factors and resilience. In J.P. Shonkoff & S.J. Meisels (Eds.). *Handbook of Early Childhood Intervention*. (2nd ed.) New York: Cambridge University Press.

White, K.R., Taylor, M., & Moss, B. (1992). Does research support claims about the benefits of involving parents in early intervention programs? *Review of Educational Research,* 620 (1), 91–125.

Whitehurst, G.J. & Lonigan, C.J. (1998). Child development and emergent literacy. *Child Development,* 68, 848–872.

Whitehurst, G.J. & Lonigan, C.J. (2001). Emergent literacy: Development from pre-readers to readers. In S. Neuman & D. Dickinson (Eds.), *Handbook of Early Literacy Development*. 11–29, New York: Guilford.

Wiggins, G. & McTighe, J. (1998). *Understanding by design.* Alexandria, VA: Association for Supervision and Curriculum Development.

Wood, D. (1998). *How children think and learn.* (2nd ed.) Oxford, UK: Blackwell Publishers.