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## Preschool Policy Brief

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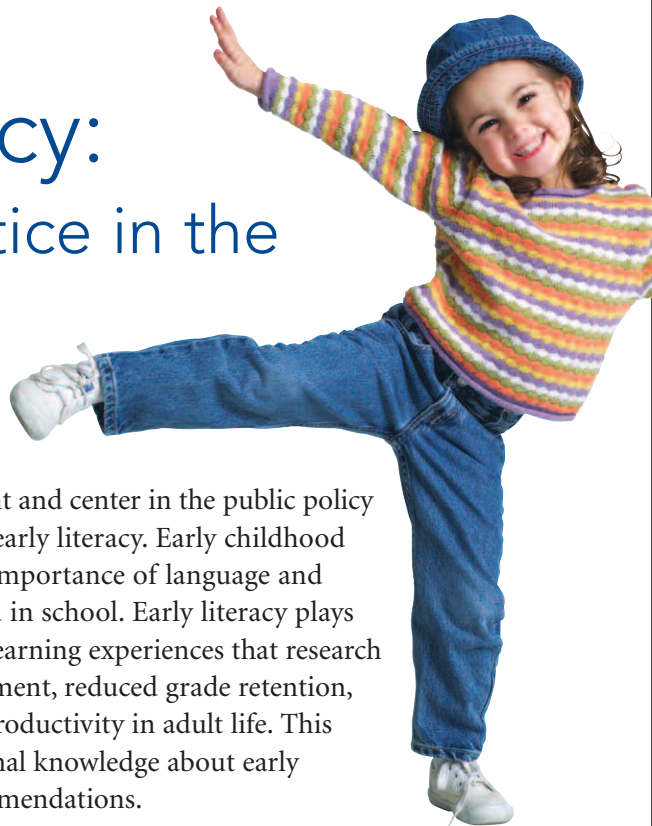
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# Early Literacy: Policy and Practice in the Preschool Years

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As early childhood education moves front and center in the public policy debate, more attention is being paid to early literacy. Early childhood professionals have long recognized the importance of language and literacy in preparing children to succeed in school. Early literacy plays a key role in enabling the kind of early learning experiences that research shows are linked with academic achievement, reduced grade retention, higher graduation rates and enhanced productivity in adult life. This report synthesizes the body of professional knowledge about early literacy and offers research-based recommendations.



### What We Know:

- Literacy development starts early in life and is highly correlated with school achievement.
- All of the domains of a child's development—physical, social-emotional, cognitive, language and literacy—are interrelated and interdependent.
- The more limited a child's experiences with language and literacy the more likely he or she will have difficulty learning to read.
- Key early literacy predictors of reading and school success include oral language, Alphabetic Code, and print knowledge.
- Well-conceived standards for child outcomes, curriculum content, and teacher preparation help establish clarity of purpose and a shared vision for early literacy education.
- Increased demands for program accountability are often heavily focused on assessments of children's early literacy development.
- Highly capable teachers are required to implement today's more challenging early literacy curriculum.
- Teacher knowledge, respect and support for the diversity of children's families, cultures, and linguistic backgrounds are important in early literacy development.

### Policy Recommendations:

- All children should have access to early childhood programs with strong literacy components that include clear adaptations for children with special needs.
- Early literacy curricula and teaching practices should be evidence-based, integrated with all domains of learning, and understandable to staff members.
- Early literacy standards should be established that articulate with K-12 programs and reflect consistency and continuity with overall program goals.
- Early literacy assessment should use multiple methods and use the information to improve both teaching and the total preschool program.
- Standards for early childhood professionals should require staff to meet early literacy instructional standards.
- Parent involvement programs should have a strong early literacy component that guides parents and caregivers in providing early literacy experiences at home.
- Support for English Language Learners should be specified and provided in both the home language and English where feasible.

A growing body of evidence shows that early learning experiences are linked with later school achievement, emotional and social well-being, fewer grade retentions, and reduced incidences of juvenile delinquency and that these outcomes are all factors associated with later adult productivity.<sup>1</sup> Other research has identified key predictors for reading and school success.

An analysis of the research literature indicates specific skills and abilities of children ages birth through 5 years that predict later reading outcomes.<sup>2</sup> Key predictive skills and abilities include:

- **Oral language**  
listening comprehension, oral language vocabulary
- **Alphabetic Code**  
alphabet knowledge, phonological/phonemic awareness (the ability to discriminate sounds in words), invented spelling
- **Print Knowledge/Concepts**  
environmental print, concepts about print

Other less significant indicators include: Rapid Automatic Naming (RAN); visual memory; and visual perceptual abilities.

How young children acquire early literacy and its oral language foundation has gained the attention of educators and policymakers. Research establishes four major principles of early literacy acquisition:

1. **Oral language is the foundation for literacy development. Oral language provides children with a sense of words and sentences and builds sensitivity to the sound system so that children can acquire phonological awareness and phonics. Through their own**

**speech children demonstrate their understanding of the meanings of words and written materials.**

#### **Supporting Evidence:**

- Children reared in families where parents provide rich language and literacy support do better in school than those who do not. Language-poor families are likely to use fewer different words in their everyday conversations and the language environment is more likely to be controlling and punitive.<sup>3</sup>
- Exposure to less common, more sophisticated vocabulary (*rare words*) at home relates directly to children's vocabulary acquisition. Rare words are those that go beyond the typical 8,500 most common words in the English language.<sup>4</sup>
- There is a strong relationship between vocabulary development and reading achievement. Understanding the meanings of words is critical to understanding what a child reads. Good readers combine a variety of strategies to read words. Even when children have strong familiarity with the alphabetic code, they frequently meet words for which the pronunciation is not easily predictable. Children who acquire strong vocabularies increase their ability to make sense of what a word might be while using what they know about phonics.<sup>5</sup>



**2. Children's experiences with the world greatly influence their ability to comprehend what they read.**

**Reading involves comprehending written texts. What children bring to a text influences the understandings they take away and the use they make of what is read.**

**Supporting Evidence:**

- Background knowledge about the world is built from a child's experiences.
- The more limited a child's experiences the more likely he or she will have difficulty comprehending what is read.

**3. Learning to read and write starts long before first grade and has long-lasting effects. Learning to read and write is an ongoing process from infancy. Contrary to popular belief, it does not suddenly begin in kindergarten or first grade. From the earliest years, everything that adults do to support children's language and literacy is critical.**

**Supporting Evidence:**

- Language and literacy develop concurrently and influence one another. What children learn from listening and talking contributes to their ability to read and write and vice versa. For example, young children's phonological awareness (ability to identify and make oral rhymes, identify and work with syllables in spoken words, and the ability to hear, identify, and manipulate the individual sounds—phonemes—in spoken words) is an important indicator of their potential success in learning to decode print. Early vocabulary development is an important predictor of success in reading comprehension. Both phonological awareness and vocabulary development begin early with participation in rhyming games

and chants, shared book experiences, and extended conversations with adults.<sup>6</sup>

- Children who fall behind in oral language and literacy development in the years before formal schooling are less likely to be successful beginning readers; and their achievement lag is likely to persist throughout the primary grades and beyond.<sup>7</sup>
- Responsive adults have a special role in supporting children's ongoing, self-generated learning. Instructional support that relies on the accumulation of isolated skills is not sufficient. Teaching children to apply their knowledge and skills in meaningful situations has a significantly greater effect on their ability to learn to read.<sup>8</sup>

**4. Children's experiences with books and print greatly influence their ability to comprehend what they read.<sup>9</sup> Reading with adults, looking at books independently, and sharing reading experiences with peers are some of the ways that children experience books.**

**Supporting Evidence:**

- Knowledge about print is built from children's experiences with books and other written materials.
- Shared book reading experiences have a special role in fostering early literacy development by building background knowledge about the world and concepts about books and print.<sup>10</sup>

Although the abundance of research evidence supports the need for attention to early literacy and its oral language foundations, it also raises essential questions about how early childhood programs can foster the skills and abilities young children need to become successful readers and writers and how reading difficulties can be prevented. The answers

to these essential questions involve consideration of the following five important and related issues: 1. early literacy learning standards, 2. curriculum, 3. accountability and assessment, 4. teacher education and professional development, and 5. home-school connections. Those charged with the responsibility for early childhood education must carefully consider each of these issues.





## Issue 1: Developing and Using Early Literacy Learning Standards

The growing trend to generate standards for early childhood education may be the best indication of a felt need to specify curriculum content and child outcomes for early education programs. Kendall and Marzano offer at least three principal reasons for the development and use of standards: to establish clarity of curriculum content, to raise expectations for the achievement of all children, and to ensure accountability for public education.<sup>11</sup> It has only been in recent years, however, that the field of early education has been a part of the standards movement.<sup>12</sup>

One national effort to produce early language and literacy standards is the National Association for the Education of Young Children (NAEYC) Accreditation Performance Criteria for early childhood programs. These standards provide guidelines for the content that children are learning, the planned activities linked to these goals, the daily schedule and routines and the availability and use of materials for children.

Because oral language and literacy are so highly interrelated, the National Center on Education and the Economy produced a comprehensive standards document on speaking and listening for preschool through third grade to accompany a previously published document that only focused on standards for reading and writing.<sup>13</sup> Each topic is described in terms of real life settings with implications for instruction and applications to different cultures and linguistic settings.

In addition to national efforts, individual states have embraced the standards movement. In 2005, 43 states report having early childhood standards, which is a substantial increase over the past few years.<sup>14</sup> Specifically, the standards include oral language development, phonological awareness, print knowledge and use, and writing. Many of them also specify criteria for teaching and program structure.

It is critical to develop standards wisely and with caution. In a joint policy statement on early learning

standards NAEYC and the National Association of Early Childhood Specialists in State Departments of Education (NAECS/SDE) describe the risks and benefits of early learning standards.<sup>15</sup> They caution that a major risk of any standards movement is that the responsibility for meeting the standards will be placed on children's shoulders rather than on the shoulders of those who should provide opportunities and supports for learning. They suggest that culturally and linguistically diverse children, as well as children with disabilities, may be at heightened risk. Nevertheless, they conclude that clear, research-based expectations for the content and desired results of early learning experiences can help focus curriculum and instruction and increase the likelihood of later positive outcomes.

## Issue 2: The Early Literacy Focus of Effective Curriculum

Although most educators and policy makers agree that a strong start in early literacy is critical, there is less agreement about how this is best accomplished. A major concern is ensuring that the curriculum addresses the overall learning and growth of the young child by continuing to stress the physical, social, emotional, and overall cognitive development of children and at the same time, strengthening the academic curriculum. Some express concern about what they perceive as an over-emphasis on early literacy and the creation of a curriculum imbalance. They caution against early literacy curricula that focus too narrowly on literacy skills and neglect consideration for all the domains of development that interact to promote children's personal and academic growth. Indeed, the physical, social, emotional, cognitive and language development of young children are actually major factors that influence early literacy development.<sup>16</sup>

### Evidence-based Practice and the Early Literacy Curriculum

In the area of literacy, both federal and state expectations have emphasized evidence-based practice to guide curriculum adoption and the evaluation of curriculum effectiveness. Evidence must be grounded in *scientifically based research*, a term used across a variety of fields that requires the application of systematic and objective procedures to obtain information to address important questions in a particular field. It is an attempt to ensure that those who use the research can have a high degree of confidence that it is valid and dependable. Whether a curriculum is homegrown or commercially prepared, those who develop and use it are expected to

support their claims with a research base. Key components of an early literacy curriculum grounded in evidence-based early literacy research include: (1) oral language development, which includes vocabulary and listening; (2) an understanding of the alphabetic code, which includes phonological/phonemic awareness and knowledge of the alphabet; and (3) knowledge and understanding about print and its use.

### Key Components of the Early Literacy Curriculum

**Oral Language.** Oral language develops concurrently with literacy development, and it includes listening comprehension, verbal expression, and vocabulary development. Oral language development is facilitated when children have many opportunities to use language in interactions with adults and each other and when they listen and respond to stories. Young children build vocabulary when they engage in activities that are cognitively and linguistically stimulating by encouraging them to describe events and build background knowledge.

**Alphabetic Code.** English is an alphabetic language, which means that the letters we use to write represent the sounds of the language that we speak. Knowledge of the alphabet letters and phonological awareness (the ability to distinguish the sounds within words) form the basis of early decoding and spelling ability, and both are correlated with later reading and spelling achievement. Young children can learn to name letters and to distinguish them from each other. They can also begin to develop an awareness of the constituent sounds within words, such as syllables, rhymes and phonemes.

Children should be immersed in language-rich environments in order to develop phonological awareness and similarly, it would be difficult to master the ABCs without lots of exposure to the alphabet (in books, on blocks, on refrigerator magnets, in cereal, in soup, in attempts to write, in having their messages written for them, etc.). Knowledge of the ABCs and phonological awareness do not usually just happen from exposure for most children, however. Parents, teachers, and older siblings often intentionally teach children the alphabet, and studies have shown that it is possible to teach phonological awareness to preschoolers and kindergarten children in ways that do not interfere with a comprehensive and rich curriculum focus but do improve later literacy.<sup>17</sup>





## The Literacy Curriculum as a Program for Prevention and Intervention

Studies of the relationship between early literacy development and school achievement have had a profound impact on the early literacy curriculum as an intervention process for children considered to be at risk for failure. Risk factors include exhibiting a developmental disability (e.g. oral language impairment, mental retardation, hearing impairment), having a parent with a history of a reading disability, speaking a language or dialect that differs from the local academic curriculum, and/or living in a household in which experiences with oral and written language are infrequent.<sup>18</sup> For children in such circumstances, a preventive intervention may be required to encourage timely attainment of the skills and abilities needed for later school readiness and achievement.

The key curriculum components are viewed as standard or essential elements of instruction for *all* children. Nevertheless, children vary in how well any “basic” curriculum will serve them. They differ in what they bring to the preschool setting and what they gain from it. Some children enter preschool having had the advantage of an abundance of experiences with books and other written materials, visiting interesting places, engaging in creative problem-solving and play, and participating in thought-provoking conversations and activities that serve to expand their general knowledge and intellectual development. For these children, both their linguistic and experiential backgrounds prepare them to benefit from a curriculum that reinforces and expands the rich reservoir of skills and knowledge these children possess.

Other children need more, different, or specifically targeted learning opportunities in preschool. Skillful teachers, and the specialists who advise them, make adjustments within the framework of the curriculum to make instruction more responsive to student needs.

Issues related to a child’s linguistic and cultural background represent a continuing and growing challenge for early literacy educators and curriculum developers. Latinos, for example, are now the largest minority group in the country—a group that is growing at a faster rate than the population as a whole.<sup>19</sup> Even for many English-speaking children, the school language (or dialect) and culture may differ greatly from that of their homes. Teachers of young children need to keep in mind that a child’s prekindergarten classroom may be the first setting of sustained contact with a new culture and will help set the stage for early success or failure with formal schooling.<sup>20</sup> Effective educators seek to learn as much as they can about the cultural and linguistic backgrounds of the children. Whenever practical, programs specifically focus on the development of both English and the child’s home language. In general, the curriculum is implemented in ways that foster respect for what children bring to the learning situation and provide continuity between the child’s experiences at home and those within the early childhood program.

Class size and teacher-pupil ratio are related to how well teachers meet the demand for high quality. The strongest evidence that preschool programs can produce large educational benefits for economically disadvantaged children comes from studies in which programs had both highly capable teachers and relatively small groups of children.<sup>21</sup>

**Print Knowledge and Use.** Making sense of print involves an awareness and understanding of environmental print and an understanding of concepts of print, such as where to begin to read a book or a page and in what direction to read. Each of these is likely learned from interacting with others around print. An early literacy curriculum might include grocery store visits; being read to on a daily basis; having a writing center where children can experiment with written communication, and environmental print that is purposeful such as functional signs, labels and charts. In addition, effective early literacy teachers model the reading and writing processes during shared reading and writing. They explicitly comment aloud about what they are thinking as they read and write so as to make the process transparent to children.

## Issue 3: Accountability and Assessment

Measuring children's early literacy development is an important part of a comprehensive early childhood program. Assessment is used to measure development and learning, to guide teacher and program planning and decision making, to identify children who might benefit from special services, and to report to and communicate with others.<sup>22</sup> In addition to the ongoing, day-by-day systematic observations that link closely to the early childhood curriculum, there is a growing trend toward child assessment for program accountability. These assessments, in which early literacy is often a major component, reflect an increasingly high-stakes climate in which programs are required to demonstrate effectiveness in improving school readiness and

creating positive child outcomes.

Concerns about trends in early literacy assessment include the use of assessments that focus on a limited range of skills and the nature of the assessments in use. Both factors may cause teachers to narrow their curriculum and teaching practices, especially when the stakes are high. For example, the ability to name the letters of the alphabet is usually assessed in a decontextualized manner in which the child is asked to name each letter as it is presented, one at a time. Unfortunately, this can lead to teaching in which the letters of the alphabet are presented in a discrete and decontextualized manner apart from children's names or the application of that knowledge to other meaningful print.

Although children may be capable of naming letters in a robotic-like, rote memorization manner, they may fail to acquire the long-term goal—an understanding of how the letters function for reading and writing and the ability to use what they know to make sense of the print in their environment.



## Issue 4: Teacher Education and Professional Development

The need for highly capable teachers is a constant theme in the literature on early childhood education. This is particularly true in the area of early literacy. National reports and government mandates have raised expectations for the formal education and training of early childhood teachers, especially in Head Start and in state-funded prekindergarten programs.<sup>23</sup> Today's early childhood teachers are expected to implement a more challenging and effective curriculum in language and literacy and to assess and document progress in increasingly complex ways.<sup>24</sup> Rising expectations coupled with an expanding number of early childhood programs have led to a major crisis in staffing, both in terms of the number of early childhood teachers and in the quality of their preparation. In response, several states have established P-3 (prekindergarten through third grade) certification programs and launched incentive efforts to encourage teachers and caregivers to upgrade and expand

their knowledge and skills.

Whether pre-service or in-service, the demands regarding what early childhood teachers need to know and do have changed dramatically. Described in broad terms, teachers of young children need to know the importance of oral language competencies, early literacy experiences and family literacy in learning to read. They need to be able to foster a wide range of language and literacy related dispositions and competencies, including a love of literacy and the development of vocabulary, oral language abilities, phonological awareness, and print-related knowledge. They must be able to use a variety of instructional methods that are age and developmentally appropriate and have the ability to adjust those methods to the specific needs of individuals. They must be skilled in the ability to use multiple methods of monitoring children's literacy development and interpreting assessments in order to make sound instructional decisions.

In order to develop the competen-

cies of the type listed above, schools of education must provide pre-service programs that are grounded in current scientific knowledge about how children learn to read and write and the best instructional practices to help them learn. Obviously, it is not possible to offer prospective teachers all the knowledge they need in a pre-service program. Like other professional fields, the knowledge base for learning and teaching is strengthened as new knowledge is gained and meshed with old. A fairly recent and promising effort designed to address this issue is the appointment of literacy coaches to the instructional team of teachers, directors and other support staff. Literacy coaches are teachers with special expertise and training, who provide continuing support and guidance to classroom teachers in order to improve classroom instruction. Thus, teacher education is viewed as an ongoing process involving rigorous pre-service training and experiential opportunities along with continued professional development.







## Issue 5: Home-School Connections

The link between supportive parental involvement and children's early literacy development is well established. Snow et. al. and others have shown that children from homes, where parents model the uses of literacy and engage children in activities that promote basic understandings about literacy and its uses, are better prepared for school.<sup>25</sup> Several national efforts such as Reading is Fundamental and Reach Out and Read have focused with some success on getting books into the hands of parents and children and promoting regular parent-child book reading. Tabors, Snow, and Dickinson report that efforts such as

these have evidently worked to some extent, citing national surveys showing an increase in parent-child literacy activities among families with preschoolers.<sup>26</sup> Unfortunately, the increases among families considered to be at greater risk lagged behind that of other families. These researchers recommend that efforts to promote shared reading with children go beyond giving books to families to include suggestions for how parents might engage in these activities to promote conversation and dialogue. They go further to suggest that it is not the frequency of book reading or even the quality of the talk that

accompanies book reading alone that is related to children's language and literacy abilities, but the broader pattern of parent-child activities and interactions that support children's language and literacy development. The challenge to get the message across to all parents, particularly to low-income and low-education parents, that everyday activities of all sorts, accompanied by interesting talk with lots of new vocabulary words, can play an important part in their children's language and literacy development.<sup>27</sup>



## Summary

The policy recommendations offered in this brief emanate from basic understandings and findings from the research on early literacy. Literacy development starts early in life and is highly correlated with school achievement. All the domains of a child's development, including literacy, are interrelated and interdependent. The more limited a child's experiences with language and literacy, the more likely he or she will have difficulty learning to read.

Well-conceived standards for child outcomes, curriculum content, and teacher preparation help establish clarity of purpose and a shared vision for early literacy education. Early literacy curricula and teaching practices

should be evidence-based, integrated with all domains of learning. States and districts should establish standards for early literacy that are articulated with K-12 programs and reflect consistency and continuity with overall program goals. At the same time, programs should be designed to provide comprehensive support for all children, including English Language Learners.

In many instances, this may require major changes in policies involving standards and accountability for children, programs and the professionals responsible for them. Competent leadership in the policy arena is essential. As Roskos and Vukelich aptly state, "What early

literacy policy accomplishes in the next decades depends not only on the structures placed on and in settings and programs, but also on the people who act on those structures to create patterns of activity that can either advance, resist or stall change."<sup>28</sup>

# References

- <sup>1</sup> Barnett, W. S. (2002). Preschool education for economically disadvantaged children: Effects on reading achievement and related outcomes. In S. Neuman & D. K. Dickinson, (Eds.), *Handbook of early literacy* (pp. 421-443). New York: Guilford Press. Bowman, B., Donovan, M. S., & Burns, M. S. (Eds.). (2000). *Eager to learn: Educating our preschoolers*. Washington, DC: National Academy Press. Heckman, J. J. (January 2006). *Investing in disadvantaged young children is an economically efficient policy*. Presentation at the Committee for Economic Development/The Pew Charitable Trusts/PNC Financial Services Group Forum on Building the Economic Case for Investments in Preschool, New York: NY. Karoly, L. A., Kilburn, M. R., & Cannon, J. S. (2005). *Early childhood interventions: Proven results, future promises*. Arlington, VA: RAND Corporation. National Institute for Child Health & Development (NICHD) Early Child Care Research Network. (2005). Pathways to reading: The role of oral language in the transition to reading. *Developmental Psychology*, 41, 428-442. Shonkoff, J. P., & Phillips, D.A. (Eds.). (2000). *From neurons to neighborhoods: The science of early childhood development*. Washington, DC: National Academy Press. Strickland, D. S. & Barnett, S. (2003). Literacy interventions for preschool children considered at risk: Implications for curriculum, professional development, and parent involvement. In C. Fairbanks, J. Worthy, B. Maloch, J.V. Hoffman, & D. Schallert (Eds.), *52<sup>nd</sup> Yearbook of the National Reading Conference, National Reading Conference*, (pp. 104-116). Oak Creek, WI: National Reading Conference Incorporated. Storch, S., & Whitehurst, G. (2002). Oral language and code-related precursors to reading: Evidence from a longitudinal structural model. *Developmental Psychology*, 38, 934-947.
- <sup>2</sup> Strickland, D.S., & Shanahan, T. (2004). Laying the groundwork for literacy. *Educational Leadership*, 61, 74-77.
- <sup>3</sup> Hart, B., & Risley, T.R. (1995). *Meaningful differences in the everyday experience of young American children*. Baltimore, MD: Paul H. Brookes Publishing Co.
- <sup>4</sup> Dickinson, D., & Tabors, P. (2001). *Beginning literacy with language: Young children learning at home and school*. Baltimore, MD: Paul H. Brookes Publishing.
- <sup>5</sup> Clay, M. (1975). The early detection of reading difficulties. London: Heinemann. Duke, N. K., Pressley, M., & Hilden, K. (2004). Assessment of reading comprehension. In C. A. Stone, E. R. Silliman, B. J. Ehren, & K. Apel (Eds.), *Handbook of language and literacy: Development and disorders* (pp. 521-540). New York: The Guilford Press. Nagy, W. E., & Scott, J. A. (2000). Vocabulary processes. In M. L. Kamil, P. Mosenthal, P. D. Pearson, & R. Barr (Eds.), *Handbook of reading research: Vol.3* (pp. 269-284). Mahwah, NJ: Erlbaum.
- <sup>6</sup> Neuman, S. B., & Dickinson, D. K. (2001). *Handbook of early literacy research*. New York: Guilford.
- <sup>7</sup> Juel, C. (1988). Learning to read and write. A longitudinal study of 34 children from first through fourth grades. *Journal of Educational Psychology*, 80, 437-447. Sprira, E. G., Bracken, S. S., & Fischel, J. E. (2005). Predicting improvement after first-grade reading difficulties: The effects of oral language, emergent literacy, and behavior skills. *Developmental Psychology*, 41, 225-234.
- <sup>8</sup> National Reading Panel. (2000). *A report of the national reading panel: Teaching children to read*. Washington, DC: National Institute of Child Health and Human Development.
- <sup>9</sup> RAND Reading Study Group. (2002). *Reading for understanding: Toward an R & D program in reading comprehension*. Santa Monica, CA: RAND Corporation.
- <sup>10</sup> Teale, W. H., & Sulzby, E. (1989). Emergent literacy: New perspectives. In D.S. Strickland & L.M. Morrow (Eds.), *Emerging literacy: Young children learn to read and write* (pp. 1-15). Newark, DE: International Reading Association. Wells, G. (1985). Preschool literacy-related activities and success in school. In D. R. Olson, N. Torrance, & A. Hildyard (Eds.), *Literacy, language and learning: The nature and consequences of reading and writing* (pp. 229-255). New York: Cambridge University Press.
- <sup>11</sup> Kendall, J. S., & Marzano, R. J. (2004). *Content knowledge: A compendium of standards and benchmarks for K-12 education*. Aurora, CO: Mid-continent Research for Education and Learning (McREL). Online database: <http://www.McREL.org/standards-benchmarks>.
- <sup>12</sup> Seefeldt, C. (2005). *How to work with standards in early childhood classrooms*. New York: Teachers College Press.
- <sup>13</sup> National Center for Education and the Economy. (2001). *New standards: Speaking and listening*. Washington DC: Author.
- <sup>14</sup> Neuman, S. & Roskos, K. (2005). The state of state pre-kindergarten standards. *Early Childhood Research Quarterly*, 20, 125-145.
- <sup>15</sup> National Association for the Education of Young Children (NAEYC) and National Association of Early Childhood Specialists in State Departments of Education (NAECS/SDE). (2002). *Early learning standards: Creating the conditions for success*. Washington, DC: NAEYC.
- <sup>16</sup> Strickland, D. S., & Schickedanz, J. A. (2004). *Learning about print in preschool: Working with letters, words, and beginning links with phonemic awareness*. Newark, DE: International Reading Association.
- <sup>17</sup> National Reading Panel (2000).
- <sup>18</sup> Snow, C. E., Burns, M. S., & Griffin, P. (Eds.). (1998). *Preventing reading difficulties in young children*. Washington, DC: National Academy Press.
- <sup>19</sup> U.S. Census Bureau (2003). United States Department of Commerce News. Washington, DC. Retrieved July 24, 2003, from <http://www.census.gov/Press-Release/www/2003/cb03-100.html>.
- <sup>20</sup> Suarez-Orozco, M. M. (2001). Globalization, immigration, and education: The research agenda. *Harvard Educational Review*, 71, 345-365.
- <sup>21</sup> Barnett, W. S., Schulman, K., & Shore, R. (2004). Class size: What's the best fit? *Preschool Policy Matters* (9). New Brunswick, NJ: National Institute for Early Education Research.
- <sup>22</sup> McAfee, O., Leong, D. J., & Bodrova, E. (2004). *Basics of assessment: A primer for early childhood educators*. Washington, DC: National Association for the Education of Young Children.
- <sup>23</sup> Office of the Assistant Secretary for Planning and Evaluation, U.S. Department of Health and Human Services. (2003). *Strengthening Head Start: What the evidence shows*. Washington, DC: Author. National Research Council. (2001). *Report of the Committee on Early Childhood Pedagogy Commission on Behavioral and Social Sciences and Education*. Washington, DC: Author.
- <sup>24</sup> National Research Council (2001).
- <sup>25</sup> Dickinson & Tabors (2001). Hart & Risley (1995). Snow, C. E., Barnes, W. S., Chandler, J., Goodman, J. F., & Hemphill, L. (1991). *Unfulfilled expectations: Home and school influences on literacy*. Cambridge, MA: Harvard University Press.
- <sup>26</sup> Tabors, P. O., Snow, C. E., & Dickinson, D. K. (2001). Homes and schools together: Supporting language and literacy development. In D. K. Dickinson & P. O. Tabors (Eds.), *Beginning literacy with language: Young children learning at home and school* (pp. 313-334). Baltimore, MD Paul H. Brookes Publishing Co.
- <sup>27</sup> Tabors et al. (2001).
- <sup>28</sup> Roskos, K. & Vukelich, C. (2006). Early literacy policy and pedagogy. In D. K. Dickinson & S. B. Neuman (Eds.). *Handbook of Early Literacy: Vol. 2* (pp. 295-308). New York: Guilford Press.

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