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grant applications

Early Reading First Hatch® Solution

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TO: EARLY READING FIRST APPLICANTS - MARCH 2009

FROM: Susan B. Gunnewig, Director of Product Development

FOR YOUR INFORMATION AND CONSIDERATION

As you prepare your application submission for the upcoming 2009 round of Early Reading First (ERF), I wanted to take this opportunity to provide assurance that Hatch has available for you several products that are aligned with the requirements of ERF.

These include the TeachSmart Learning System (TSLs), which we are pleased to acknowledge has been mentioned on the ERF listserv. As well, a number of current Early Reading First grantees have purchased the system with their funds. The TSLs is aligned with findings from the National Early Literacy Panel (NELP), the accreditation standards for the National Association for the Education of Young Children (NAEYC), Head Start Child Outcomes, the Early Childhood Environmental Rating Scale (ECERS), and early childhood learning standards from two prominent expert panels (McGraw-Hill and Mid-Continent Research Education Laboratory-McREL).

We also want to make you aware of the Right on Target™ kit, the Read Aloud Prekindergarten Book Series with read aloud labels, the Fit 4 You™ kit and the Hatch Prekindergarten Instant Classroom. The Right on Target™ kits were developed with the most current scientific research and specific state learning standards, NAEYC standards, and Head Start Child Outcomes. The Read Aloud series is an excellent tool to promote the ERF goals, from vocabulary development to understanding print as well as promoting a love for reading. The Fit 4 You™ kit's connection with scientific research based development in the areas of alphabet recognition, writing, vocabulary and language development supporting good nutrition and physical health, which are key factors in school success for low-income children. With the purchase of the Hatch Instant Prekindergarten classroom, you receive a free Hatch computer. We build our computer learning centers around KidDesk, a utility software program owned by Hatch, which makes the Computer Learning Center independently accessible for young children and easy for teachers. We will come back to your site as often as you like to do follow-up trainings, parent trainings and even specialized trainings correlating to your curriculum.

To facilitate your use of these products in your ERF application, we have linked for you the products and their connections with the important ERF parameters such as alphabet knowledge, phonological awareness, writing, language and vocabulary; as well as the overall cognitive and social-emotional skills children need to be successful. Taking the TeachSmart Learning System for example, the system encourages problem solving, taking turns, and play just to name a few to aid in developing social and emotional skills in young children. This system will also support many other goals and standards in early childhood that are critical for school success. There are a number of math activities that are aligned with the National Teachers of Mathematics recommendations for early childhood. Screening instruments are included in the system to identify children who are at risk of reading failure later in kindergarten. Current ERF purchasers of the system are impressed with the digital portfolio. They find this component a fabulous tool for parent conferences. NAEYC in the September Beyond the Board issue discussed interactive white boards in the early childhood classroom. You may find this article, "Meaningful Technology Integration in Early Learning Environments" available at www.naeyc.org.

For grant writing purposes and to inform your purchasing decisions, we have developed a set of resources for you available here and on our website. These include:

- Tables showing the critical goals as required by ERF and how they can be met using the products described above.
- Descriptions and pricing information on the products.
- The Executive Summary of the recent National Early Literacy Panel (NELP) findings.
- A whitepaper with research citations about the positive outcomes of using appropriate educational technology in the early childhood education classroom.

If you are interested in discussing the research connections for use in your grant, please contact Dr. Dale McManis at dmcmanis@hatchearlychildhood.com. Please contact your Hatch sales consultant for further information about purchasing our products.

Most of all, good luck!



Susan B. Gunnewig, M.Ed.

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This section offers descriptions and pricing information on the products.

Hatch Solution Builds on NELP 29

We have included here the Executive Summary of the recent National Early Literacy Panel (NELP). In developing the Hatch Solution products, we have given careful attention to following research-based findings, with one of the most well-respected this work. As these findings are also very prominent in the ERF Grant, we offer this paper for you to see firsthand these findings and connections.

Appendix A: Hatch Solution Focus on Using Educational Technology 36

Here you will find our whitepaper with research citations about the positive literacy and language outcomes of using appropriate educational technology in the early childhood education classroom.

**How the TeachSmart® Learning System Supports Early Reading First Grants
Prepared for Hatch: March 2009**

Context and Background from the ERF Grant Application: What does a High Quality Early Learning Classroom Look Like?

In a high-quality early education program, there is a literature-rich environment with letters of the alphabet clearly displayed at the children's eye level, play and learning centers that include a large number and wide variety of good books, writing tools, and other materials and toys conducive to imaginative play, and many interesting and challenging activities through which children can gain vocabulary and knowledge about the world. Children are engaged in purposeful, meaningful, and significant learning activities and play, and are in the company of teachers who work from lesson and activity plans for which the purposes are known. Teachers engage in rich verbal exchanges and responsive interactions with their students. There is a balance between individual, small-group, and large-group activities. Early Reading First does not emphasize the formal teaching of reading; rather it is about providing opportunities for children to develop early reading skills through activities that are appropriate and enjoyable for young children. The program encourages teachers to use constructive and imaginative play as opportunities for children to develop their vocabulary, understanding, and ability to think about the world around them. Through improvements in instruction and the classroom environment that are grounded in scientifically based reading research, Early Reading First helps children develop the oral language skills, vocabulary, phonological awareness, print awareness, and alphabet knowledge that will prepare them for later school success.

Early Reading First	TeachSmart® Learning System
<p>Statutory Requirements: All applicants must meet the application requirements established in section 1222(b) of the ESEA in order to be considered for funding. All applications must include a description of the following:</p>	<p>The TeachSmart® Learning System offers over 1000 classroom-tested strategies and activities. These are categorized in areas that offer content needed to prepare children for kindergarten; such as literacy, language, and math; to be taught to children in an intentional but playful manner. The strategies and activities follow the findings of the National Early Literacy Panel and are aligned for you with standards and guidelines from key groups in the early childhood field, such as NAEYC (National Association for the Education of Young Children), Head Start, ECERS (Early Childhood Environmental Rating Scale), and prekindergarten content standards from two distinguished panels of experts (CTB-McGraw Hill through the Carnegie Foundation and McREL: Mid-continent Research for Education and Learning).</p>
<p>How the proposed project will enhance the school readiness of preschool age children in high-quality oral language and literature-rich environments</p>	<p>The TSLs provides the teacher with already designed and tested research-based strategies and activities that can be used with just a touch. The strategies and activities, which are playful, engaging, and purposeful; are in the important school readiness skill areas of pre-literacy, language, math, social studies, and science; and are tied into national pre-k standards, which further strengthens the early childhood program and outcomes for the children they serve. All activities in the TSLs are heavily language-focused.</p>

Early Reading First	TeachSmart® Learning System
How the proposed project will provide services and use instructional materials that are based on scientifically based reading research on early language acquisition, pre-reading activities, and the development of spoken vocabulary skills	The best use of educational technology depends on linking tested strategies, activities, and lessons in a meaningful way with curriculum and standards. The entire TeachSmart® Learning System does this almost effortlessly for the early childhood teacher. This is because Hatch has provided the correlations with pre-kindergarten standards and key curriculum areas, and designed strategies and activities that come pre-loaded on the System showing these connections. This allows teachers to get started right away and to quickly see benefits for their children.
How the proposed project will help staff in the programs to meet more effectively the diverse needs of preschool-aged children in the community, including such children with limited English proficiency, disabilities, or other special needs	The TSLS is designed to engage young children in fun, motivating, and developmentally appropriate strategies and activities that are based on scientific research. The Interactive Whiteboard component in particular supports this goal through displaying information visually, being able to keep and improve lessons, see children’s work immediately, and the vast opportunities to explore knowledge. The Learning System can quickly be customized to an individual child or group of children based on their learning styles, functioning levels, and interests. Children with special needs and children learning English as a second language are well supported as well with the System.
How the proposed project will help children, particularly children experiencing difficulty with spoken language, pre-reading, and early reading skills, to make the transition from preschool to formal classroom instruction in school	The TSLS is designed such that after a teacher models for the child, then she or he can guide the child in reproducing the behavior, determining along the way if the skill should be presented more simply or in a more advanced manner for the child, and finally seeing the child carrying out the target end behavior on their own. Children can learn very effectively when an adult scaffolds the instruction. This also helps children progress from being “other-regulated” (the teacher) to “self-regulated” as their attention, cognitive, language, and motor skills advance. Even further, the TSLS recognizes that being “multi-faceted” is the new role of the preschool teacher. Teachers become organizers of the environment, facilitators, managers, and scribes for children as they play and explore with materials and activities. While doing so, the child-directed learning will add to the teacher-directed activities. This leads to a successful balance for optimal learning.
Purpose of Early Reading First	
Support local efforts to enhance the early language, literacy, and pre-reading development of preschool-aged children, particularly those from low-income families, through strategies and professional development that are based on scientifically based reading research	In the busy early childhood classroom, teachers need to know that the strategies and activities they plan for their children are developing cognitive and social/emotional skills. This includes basic skill building as well as remediation or enrichment. These are both supported since the TSLS is based on the best research in the field of literacy and learning approaches for preschool children. The System supports local efforts as the Learning System also allows teachers to create their own strategies and activities. This enables them to build on their children’s interests and increase the number of valuable “teachable moments”. The strategies and activities that come pre-loaded can serve as excellent models for teachers to develop their own customized activities and strategies.

Early Reading First	TeachSmart® Learning System
<p>Provide preschool-aged children with cognitive learning opportunities in high-quality language and literature-rich environments so that they can attain the fundamental knowledge and skills necessary for optimal reading development in kindergarten and beyond</p>	<p>Experts confirm that preschool age children are developmentally ready and able to benefit from instruction with technology. The use of educational technology is now known to have a major, positive impact on the social, emotional, language, and cognitive development of children. It is recommended that many opportunities be given during the preschool years for exploration using technology tools in a playful, supportive environment. Researchers further agree that a number of technology applications have the potential to support and extend learning in the young child through their unique capability to provide excellent instruction in these important developmental areas that are critical for educational success. For example, research has found that preschoolers, who used computers with supporting activities for key learning goals, had more gains than children without computer experiences. Among others, these included gains in knowledge, long-term memory, verbal skills, problem solving, and manual dexterity, all skills that support reading in the early stages and throughout all the school years.</p>
<p>Integrate scientifically reading research-based instructional materials and literacy activities with existing programs of preschools, child care agencies and programs, Head Start centers, and family literacy services.</p>	<p>The TSLS was built with the capability to be used in all early childhood education settings, whether single or mixed delivery. The learning standards that accompany each set of activities within the system are drawn from all types of learning environments. A powerful feature to engage parents is that children’s individual work and progress can be shared with the System’s Digital Portfolios. Children can benefit from seeing their own work samples as evidence of their growth and progress. For parents, documentation of their child’s work in the context of conferences or evaluations allows them to learn about the curriculum and to have knowledge and expectations about their child’s performance that are appropriate. This makes them feel more a part of their child’s education and will encourage parent involvement, which research shows is strongly connected to children’s success in school.</p>

Early Reading First	TeachSmart® Learning System
<p>Demonstrate language and literacy activities based on scientifically based reading research to support the age-appropriate development of:</p> <ul style="list-style-type: none"> • recognition, leading to automatic recognition, of letters of the alphabet; • knowledge of letter sounds, the blending of sounds, and the use of increasingly complex vocabulary; • an understanding that written language is composed of phonemes and letters each representing one or more speech sounds that in combination make up syllables; • spoken language, including vocabulary and oral comprehension abilities; and; • knowledge of the purposes and conventions of print <p><i>Continued on the next page...</i></p>	<p>Herein lies the “heart” of the TeachSmart Learning System. The following outlines the literacy and language activities included in the TSLs, samples of learning standards that are supported by the System, and additional support showing the scientific research basis upon which the System was built.</p> <p>Skill Development Emergent literacy (phonological awareness, alphabet knowledge, writing and language development), and language-based science, and social studies activities are located in this category. Scaffolded and research-based activities are found in each of these cognitive areas.</p> <p>Stories Large colorful environmental backgrounds with movable characters and props enrich the sense of story and vocabulary development. Children’s interaction with these backgrounds enhances creative play, story planning, and social interaction.</p> <p>Living Books Famous books come alive to enable children to track print and interact with the pages of the book. Children are encouraged to recreate the story and record their own versions.</p> <p>Charts A number of playful charts with pictures encourage the development of rhyme and the rhythm of language. Suggestions guide the teacher to utilize these charts in interactive play as well.</p> <p>Assessment Progress monitoring assessments are included for the following areas: letter and numeral recognition, drawing, and storytelling. Clear guidance is suggested for the teacher.</p> <p>Specific Skills Areas connected to ERF: Emergent Literacy –Phonological Awareness Activities Words In A Sentence; Blending Compound Words; Segmenting Compound Words; Blending Syllables; Segmenting Syllables; Rhyming; Initial Sound Matching; Onset Rime; Blending Words With Two Sounds</p> <p>Example Standards in Phonological Awareness Supported by TSLs: CTB Guideline IV. Children will gain literacy and language learning. Objective 4. Children will develop phonemic awareness. McREL Language arts Standard 8. Uses listening and speaking strategies for different purposes. 18. Knows that words are made up of syllables.</p> <p>Emergent Literacy –Alphabet Knowledge Letter Recognition; Letter/Sound Matching</p> <p>Example Standards in Alphabet Knowledge Supported by TSLs: McREL Language arts Standard 5. Uses the general skills and strategies of the reading process. 6. Knows some letters of the alphabet, such as those in the student’s own name. CTB Guideline IV. Children will gain literacy and language learning. Goal 1. Listening. 5. Children will be able to identify letter-sound relationships.</p>

Early Reading First	TeachSmart® Learning System
<p>Demonstrate language and literacy activities based on scientifically based reading research to support the age-appropriate development of:</p> <ul style="list-style-type: none"> • recognition, leading to automatic recognition, of letters of the alphabet; • knowledge of letter sounds, the blending of sounds, and the use of increasingly complex vocabulary; • an understanding that written language is composed of phonemes and letters each representing one or more speech sounds that in combination make up syllables; • spoken language, including vocabulary and oral comprehension abilities; and; • knowledge of the purposes and conventions of print 	<p>Emergent Literacy – Writing Name Writing; Writing Other Letters & Words; Using Capital Letters & Punctuation Example Standards in Writing Supported by TSLS: McREL Language arts Standard 1. Uses the general skills and strategies of the writing process. 1. Knows that writing, including pictures, letters, and words, communicates meaning and information. Head Start 1304.2(a)(4) (iv). Support emerging literacy and numeracy development through materials and activities according to the developmental level of each child: Help children to see the functional uses of print in the program.</p> <p>Emergent Literacy – Language Storytelling; Dramatic Play; Vocabulary Building Example Standards in Language Supported by TSLS: NAEYC 2.E. Curriculum content area for cognitive development: Early literacy. 2.E.04. Children have varied opportunities to be read books, be read to regularly, explore books on their own, have access to various types of books, be read the same book on repeated occasions, retell and re-enact events in storybooks, engage in conversation that helps them understand the content of the book, be assisted in linking books to other aspects of the curriculum. Head Start 1304.21(a) (4)(iii) (ii). Promote interaction and language use among children and between children and adults. Use a variety of strategies for children to learn new and interesting vocabulary, and to expand their language skills through songs, games, poems, and stories. McREL Language arts Standard 8. Uses listening and speaking strategies for different purposes. 2. Uses new vocabulary to describe feelings, thoughts, experiences, and observations. 4. Uses descriptive language (e.g., color words; size words, such as bigger, smaller; shape words).14. Understands basic conversational vocabulary.</p> <p>Note: You are able to choose the appropriate developmental level. Four levels are available for you: Emergent – beginning or introduction to skill. Still Developing – needs additional practice or exposure to skill. Developed – understands skill. Extension – additional exposure to skill at a higher level.</p>

More About the Scientific Research Basis of the TSLs

Example of Teacher Talk with References

Teacher Talk: Emergent Literacy

The formation of reading and writing concepts and skills is a process that is dynamic in the earliest stages of children's literacy development¹. The emergent literacy perspective holds that for young children, reading and writing develop hand-in-hand and are strengthened through experiences that encourage meaningful interaction with written and oral language². Examples are following along in a book as an adult reads aloud or telling a story through a drawing³. By way of being exposed to written language, preschool children come to have an awareness of print, letter naming, and phonemic awareness. Experiences with oral language allow for the development of listening comprehension, vocabulary, and language competence. A thorough review of the emergent literacy literature suggests that early childhood literacy experiences affect successful reading acquisition. Research findings can inform preschool classroom instruction in emergent literacy in the following ways⁴:

- Reading and writing experiences with print facilitate the development of understanding the purpose, conventions, and functions of print for preschool children;
- Interacting with others who are modeling language (both oral and written) helps children learn how to pay attention to language and apply what they have learned to literacy situations;
- Phonological awareness and letter recognition in particular facilitate beginning reading acquisition by assisting children to develop effective word-recognition strategies (e.g., detecting pronunciations and storing associations in memory); and
- Storybook reading, both the content and the interaction between the teacher and children, has an impact on children's attitudes, knowledge, and strategies toward reading.

The National Early Literacy Panel (NELP)⁵ found strong evidence for the importance of the following for later reading and writing skills:

- Alphabet knowledge,
- Phonological awareness,
- Rapid naming tasks involving either naming of letters and digits or naming of objects and colors,
- Writing/writing name, and
- Phonological short-term memory.

When integrating these findings into early childhood instruction in reading, what is recommended (and what many educators likely already practice), is a balanced approach. Such an approach combines the language- and literature-rich activities connected with whole language focused on increasing meaning, understanding, and a positive attitude toward language. With clear and direct instruction around skills needed for the development of fluency children move along to being proficient in reading⁶.

Teacher Talk: Emergent Literacy References

¹ National Research Council. (2000). *From neurons to neighborhoods: The science of early childhood development*. Washington, DC: National Academy Press.

² Sulzby, E., & Teale, W. (1991). Emergent literacy. In R. Barr, M. L. Kamil, P. B. Mosenthal, & P. D. Pearson (Eds.), *Handbook of reading research* (Vol. 2., pp. 727-757). New York: Longman.

³ Hiebert, E. H., & Papierz, J. M. (1990). The emergent literacy construct and kindergarten and readiness books of basal reading series. *Early Childhood Research Quarterly*, 5 (3), 317-334.

⁴ Gunn, B.K., Kameenui, E.J., & Simmons, D.C. (1995). Emergent literacy: Synthesis of the research. Available from <http://idea.uoregon.edu/~ncite/documents/techrep/tech19.html>

⁵ The National Early Literacy Panel. (2000). *National Reading Panel reports combination of teaching phonics, word sounds, giving feedback on oral reading most effective way to teach reading*. Available from <http://www.nichd.nih.gov/news/releases/nrp.cfm>

⁶ Honig, B. (1996). *Teaching our children to read: The role of skills in a comprehensive reading program*. Thousand Oaks, CA: Corwin Press.

**How the Right On Target Kit Supports Early Reading First Grants
Prepared for Hatch: March 2009**

Early Reading First	The Right On Target Kit
<p>Statutory Requirements: All applicants must meet the application requirements established in section 1222(b) of the ESEA in order to be considered for funding. All applications must include a description of the following:</p>	<p>The Right On Target kit has over 90 activities which are child centered. These activities are categorized in areas that offer content needed to prepare children for kindergarten: such as alphabet knowledge, phonological awareness, vocabulary and language development, and mathematics; to be taught in an intentional and playful manner. The strategies and activities follow the findings of the newly released National Early Literacy Panel report, <i>Developing Early Literacy</i>, and are aligned for you with state prekindergarten standards, NAEYC, and Head Start.</p>
<p>How the proposed project will enhance the school readiness of preschool age children in high-quality oral language and literature-rich environments</p>	<p>The Right On Target kit provides the teacher with already designed and tested research-based strategies and activities that can be used with small group instruction. The strategies and activities, which are playful, engaging, and purposeful; are in the important school readiness skill areas of pre-literacy, language, and mathematics are tied into state, NAEYC, and Head Start pre-k standards, which further strengthens the early childhood program and outcomes for the children they serve. Findings from the National Early Literacy Panel, <i>Developing Early Literacy</i>, released January 8, 2009. All activities in the Right On Target kit are heavily language-focused.</p>
<p>How the proposed project will provide services and use instructional materials that are based on scientifically based reading research on early language acquisition, pre-reading activities, and the development of spoken vocabulary skills</p>	<p>The best use of educational materials depends on linking tested strategies, activities, and lessons in a meaningful and intentional way with curriculum and standards. The entire Right On Target kit does this almost effortlessly for the early childhood teacher. This is because Hatch has provided the correlations with pre-kindergarten standards and key curriculum areas, and designed strategies and activities that are in the Teacher Quick Reference lap guide showing these connections. This allows teachers to get started right away and to quickly see benefits for their children.</p>
<p>How the proposed project will help staff in the programs to meet more effectively the diverse needs of preschool-aged children in the community, including such children with limited English proficiency, disabilities, or other special needs</p>	<p>The Right On Target kit is designed to engage young children in fun, motivating, and developmentally appropriate strategies and activities that are based on scientific research. This kit is a compatible with other curriculums found in the early childhood classroom. Its focus is to provide intentional focus small group work for all children. Children with different learning styles will find success by interacting with the game-like activities and rich conversations with their peers and teachers as the teacher's guide encourages. The kit can quickly be customized to an individual child or group of children based on their learning styles, functioning levels, and interest. This kit has a strong focus on alphabet knowledge (upper case and lower case), phonological awareness, writing, language development as well as sound mathematic principles for early childhood.</p>

Early Reading First	The Right On Target Kit
<p>How the proposed project will help children, particularly children experiencing difficulty with spoken language, pre-reading, and early reading skills, to make the transition from preschool to formal classroom instruction in school</p>	<p>The Right On Target kit is designed such that after a teacher models for the child, then she or he can guide the child in reproducing the behavior, determining along the way if the skill should be presented more simply or in a more advanced manner for the child, and finally seeing the child carrying out the target end behavior on their own. Children can learn very effectively when an adult scaffolds the instruction. This also helps children progress from being "other-regulated" (the teacher) to "self-regulated" as their attention, cognitive, language, and motor skills advance. Even further, the kit recognizes that being "multi-faceted" is the new role of the preschool teacher. Teachers become organizers of the environment, facilitators, managers, and scribes for children as they play and explore with materials and activities. While doing so, the child-directed learning will add to the teacher-directed activities. This leads to a successful balance for optimal learning.</p>
Purpose of Early Reading First	
<p>Support local efforts to enhance the early language, literacy, and pre-reading development of preschool-aged children, particularly those from low-income families, through strategies and professional development that are based on scientifically based reading research</p>	<p>In the busy early childhood classroom, teachers need to know that the strategies and activities they plan for their children are developing cognitive and social/emotional skills. This includes basic skill building as well as remediation or enrichment. These are both supported since the Right On Target is based on the best research in the field of literacy and learning approaches for preschool children. The kit supports local efforts as the Right On Target kit also allows teachers to create their own strategies and activities. This enables them to build on their children's interests and increase the number of valuable "teachable moments". The strategies and activities that are included in the kit can serve as excellent models for teachers to develop their own customized activities and strategies using some of the same materials or other materials they may have in the classroom.</p>
<p>Provide preschool-aged children with cognitive learning opportunities in high-quality language and literature-rich environments so that they can attain the fundamental knowledge and skills necessary for optimal reading development in kindergarten and beyond</p>	<p>Experts confirm that preschool age children are developmentally ready and able to benefit from instruction with hands on activities and rich conversation. Researchers have informed the early childhood field that children spend much of their day in whole or large groups. Small group instruction is at a minimum. This kit supports the busy teacher in providing research based activities that address children in small group settings. Extension activities are provided for those children who may go beyond the basic activity. School readiness is at the heart of the Right On Target kit which a strong focus on alphabet recognition, phonological awareness, writing and language development.</p>

Early Reading First	The Right On Target Kit
<p>Integrate scientifically reading research-based instructional materials and literacy activities with existing programs of preschools, child care agencies and programs, Head Start centers, and family literacy services.</p>	<p>The Right on Target kit was created with the capability to be used in all early childhood education settings, whether single or mixed delivery. A powerful feature is that teachers are encourage through intentional activity cards which acts as a lesson play to engage children in small group instruction. Children can benefit from seeing their own work samples as evidence of their growth and progress. Extensions are provided to support children development beyond the initial activity. If a current curriculum implemented in these settings does not reflect current scientific research then this kit will help bolster those very important cognitive areas needed to be school ready.</p>
<p>Demonstrate language and literacy activities based on scientifically based reading research to support the age-appropriate development of:</p> <ul style="list-style-type: none"> • recognition, leading to automatic recognition, of letters of the alphabet; • knowledge of letter sounds, the blending of sounds, and the use of increasingly complex vocabulary; • an understanding that written language is composed of phonemes and letters each representing one or more speech sounds that in combination make up syllables; • spoken language, including vocabulary and oral comprehension abilities; and; • knowledge of the purposes and conventions of print 	<p>Herein lies the heart that is behind the development of this kit. The following outlines the literacy and language activities included in the TSLs, samples of learning standards that are supported by the System, and additional support showing the scientific research basis upon which the System was built.</p> <p>Skill Development Emergent literacy (phonological awareness, alphabet knowledge, writing and language development), and language-based. Each of these areas has a “must do” activities with extensions provided with children are ready. Read aloud books with guided reading labels assists the busy teachers with questioning techniques to obtain the optimal experience for the children. Research-based activities are found in each of these cognitive areas.</p> <p>Assessment Teachers are encourages to observe and keep checklists for each child to follow their developmental path.</p> <p>Emergent Literacy – Phonological Awareness Activities Words In A Sentence; Blending Compound Words; Segmenting Compound Words; Blending Syllables; Segmenting Syllables; Rhyming; Initial Sound Matching; Onset Rime; Blending Words With Two Sounds</p> <p>Emergent Literacy – Alphabet Knowledge Letter Recognition; Letter/Sound Matching/Make a Letter Wall</p> <p>Emergent Literacy – Writing Name Writing; Writing Other Letters & Words; Using Capital Letters & Punctuation through modeling by the teachers, journal writing, morning message, taking dictation, shared writing experiences, etc.</p> <p>Emergent Literacy – Language Story Sequencing, Vocabulary Building, Receptive and Expressive Language activities using actual photos</p>

Other examples of Scientific Research Base:

The National Early Literacy Panel (NELP)⁵ found strong evidence for the importance of the following for later reading and writing skills:

- Alphabet knowledge
- Phonological awareness
- Rapid naming tasks involving either naming of letters and digits or naming of objects and colors
- Writing/writing name
- Phonological short-term memory

When integrating these findings into early childhood instruction in reading, what is recommended (and what many educators likely already practice), is a balanced approach. Such an approach combines the language- and literature-rich activities connected with whole language focused on increasing meaning, understanding, and a positive attitude toward language. With clear and direct instruction around skills needed for the development of fluency children move along to being proficient in reading⁶.

Emergent Literacy References

¹ National Research Council. (2000). *From neurons to neighborhoods: The science of early childhood development*. Washington, DC: National Academy Press.

² Sulzby, E., & Teale, W. (1991). Emergent literacy. In R. Barr, M. L. Kamil, P. B. Mosenthal, & P. D. Pearson (Eds.), *Handbook of reading research* (Vol. 2., pp. 727-757). New York: Longman.

³ Hiebert, E. H., & Papierz, J. M. (1990). The emergent literacy construct and kindergarten and readiness books of basal reading series. *Early Childhood Research Quarterly*, 5 (3), 317-334.

⁴ Gunn, B.K., Kameenui, E.J., & Simmons, D.C. (1995). *Emergent literacy: Synthesis of the research*. Available from <http://idea.uoregon.edu/~ncite/documents/techrep/tech19.html>

⁵ The National Early Literacy Panel. (2000). *National Reading Panel reports combination of teaching phonics, word sounds, giving feedback on oral reading most effective way to teach reading*. Available from <http://www.nichd.nih.gov/news/releases/nrp.cfm>

⁶ Honig, B. (1996). *Teaching our children to read: The role of skills in a comprehensive reading program*. Thousand Oaks, CA: Corwin Press.

How The Hatch Prekindergarten Instant Classroom Supports Early Reading First Grants
Prepared for Hatch: March 2009

Early Reading First	The Hatch Prekindergarten Instant Classroom
<p>Statutory Requirements: All applicants must meet the application requirements established in section 1222(b) of the ESEA in order to be considered for funding. All applications must include a description of the following:</p>	<p>The Hatch Prekindergarten instant classroom is comprised of furnishings and other supplies and materials to promote positive early childhood outcomes. A well-planned physical room arrangement must be rich with environmental print and allow for small, cozy spaces with materials and books easily assessable. A classroom management system, Positive Beginnings is included. Classroom management, or the manner in which activities are conducted throughout the day, is closely linked with the physical arrangement in achieving a successful environment (Landry, 2005). The areas of this classroom for prekindergarten are: furniture, block & manipulatives, puzzles & problem solving, math & science, literacy, dramatic play, art supplies, sand and water play, gross motor play and music. Every important early childhood component is attended to in the Hatch instant classroom.</p>
<p>How the proposed project will enhance the school readiness of preschool age children in high-quality oral language and literature-rich environments</p>	<p>The classroom's contents provide the teacher with the Positive Beginnings kit which was developed by CIRCLE at the University of Texas Health Science Center under the direction of Dr. Susan H. Landry. This kit enhances the classroom environment with environment print for center play, guided reading chart, routines and responsibilities, and materials to create a classroom letter wall. This management system encourages activities, which are playful, engaging, and purposeful; are in the important school readiness skill areas of pre-literacy, language, and are mathematics tied into state, NAEYC, and Head Start pre-k standards, which further strengthens the early childhood program and outcomes for the children they serve. This is supported by findings from the National Early Literacy Panel, Developing Early Literacy, released January 8, 2009.</p>
<p>How the proposed project will provide services and use instructional materials that are based on scientifically based reading research on early language acquisition, pre-reading activities, and the development of spoken vocabulary skills</p>	<p>The best use of educational materials depends on linking tested strategies, activities, and lessons in a meaningful and intentional way with curriculum and standards. A teacher will find numerous books with read aloud labels, puzzles, picture and story cards, manipulatives, puppets, letter recognition games and writing tools in this Hatch instant classroom to provide opportunities for young children to acquire these very important skills.</p>

Early Reading First	The Hatch Prekindergarten Instant Classroom
How the proposed project will help staff in the programs to meet more effectively the diverse needs of preschool-aged children in the community, including such children with limited English proficiency, disabilities, or other special needs	The Hatch Prekindergarten Classroom is designed to engage young children in fun, motivating, and developmentally appropriate practice with furniture, materials and supplies that have been reviewed by early childhood experts. This classroom list has been customized to meet NAEYC standards and beyond. As new research has informed the field, Hatch has updated the list to include stronger inclusion of cognitive readiness materials and supplies. Children with varying learning styles and needs will have positive experiences in this classroom.
How the proposed project will help children, particularly children experiencing difficulty with spoken language, pre-reading, and early reading skills, to make the transition from preschool to formal classroom instruction in school	After the instant classroom has been installed, teachers will find themselves as organizers of a number of materials and activities to encourage children in acquiring pre-reading skills such as alphabet puzzles, letter games, writing materials, word and story picture cards, and stories. Many books with guided reading labels to support the teachers will enrich discussions during the reading experience. These books can also go home with children so their parents may read aloud with them.
Purpose of Early Reading First	
Support local efforts to enhance the early language, literacy, and pre-reading development of preschool-aged children, particularly those from low-income families, through strategies and professional development that are based on scientifically based reading research	In the busy early childhood classroom, teachers need to be comfortable that the environment's furniture, carpet and other furnishings, supplies and materials are laying the foundation of what is needed to develop cognitive and social/emotional skills. The Instant Classroom list was based on the best research in the field of literacy and learning approaches for preschool children.
Provide preschool-aged children with cognitive learning opportunities in high-quality language and literature-rich environments so that they can attain the fundamental knowledge and skills necessary for optimal reading development in kindergarten and beyond	Experts confirm that preschool age children are developmentally ready and able to benefit from instruction with hands on activities and rich conversation. The depth of books with read aloud labels, and supplies and materials that are a part of the instant classroom provide the high-quality environment that is needed to prepare children for kindergarten.
Integrate scientifically reading research-based instructional materials and literacy activities with existing programs of preschools, child care agencies and programs, Head Start centers, and family literacy services	The Hatch Instant Classroom was created with the capability to be used in all early childhood education settings, whether single or mixed delivery. The learning standards that were utilized to develop this instant classroom are drawn from all types of learning environments.

Early Reading First	The Hatch Prekindergarten Instant Classroom
<p>Demonstrate language and literacy activities based on scientifically based reading research to support the age-appropriate development of:</p> <ul style="list-style-type: none"> • recognition, leading to automatic recognition, of letters of the alphabet; • knowledge of letter sounds, the blending of sounds, and the use of increasingly complex vocabulary; • an understanding that written language is composed of phonemes and letters each representing one or more speech sounds that in combination make up syllables; • spoken language, including vocabulary and oral comprehension abilities; and; • knowledge of the purposes and conventions of print <p><i>Continued on the next page...</i></p>	<p>Herein lies the “heart” of the Hatch Instant Classroom.</p> <p>Skill Development</p> <p>Stories Age appropriate story books (fiction and nonfiction) to develop a love of reading plus acquire knowledge of the alphabet, rhyming, etc. The reading aloud labels that attach to the back of the book provide a lesson plan for the teacher to engage in rich conversation and vocabulary development.</p> <p>Environmental Print A number of charts allow children to use icons connected to print to demonstrate that print has meaning. Suggestions guide the teacher to utilize these charts in interactive play as well as a system to support child choice for center selection.</p> <p>Specific Skills Areas connected to ERF: Emergent Literacy –Attention to Print Conventions Colorful charts and signs with real icons are included to support children recognizing print in their everyday environment.</p>

Early Reading First	The Hatch Prekindergarten Instant Classroom
<p>Demonstrate language and literacy activities based on scientifically based reading research to support the age-appropriate development of:</p> <ul style="list-style-type: none"> • recognition, leading to automatic recognition, of letters of the alphabet; • knowledge of letter sounds, the blending of sounds, and the use of increasingly complex vocabulary; • an understanding that written language is composed of phonemes and letters each representing one or more speech sounds that in combination make up syllables; • spoken language, including vocabulary and oral comprehension abilities; and; • knowledge of the purposes and conventions of print <p><i>Continued on the next page...</i></p>	<p>Emergent Literacy –Alphabet Knowledge Letter Recognition: Letter Wall Materials with detailed directions for displaying in the classroom at eye level. Contents include alphabet cards (upper case and lower case) with real picture icons, and blank sentence strips with markers. Teachers are encouraged to use children’s own names on their letter wall.</p> <p>Example Standards in Alphabet Knowledge Supported by The Instant Classroom: McREL Language Arts Standard 5. Uses the general skills and strategies of the reading process. 6. Knows some letters of the alphabet, such as those in the student’s own name. CTB Guideline IV. Children will gain literacy and language learning. Goal 1. Listening. 5. Children will be able to identify letter-sound relationships.</p> <p>Emergent Literacy – Writing Name Writing; Writing Other Letters & Words; Using Capital Letters & Punctuation</p> <p>Example Standards in Writing Supported by the Instant Classroom: McREL Language Arts Standard 1. Uses the general skills and strategies of the writing process. 1. Knows that writing, including pictures, letters, and words, communicates meaning and information. Head Start 1304.2(a) (4) (iv). Support emerging literacy and numeracy development through materials and activities according to the developmental level of each child: Help children to see the functional uses of print in the program.</p>

Early Reading First	The Hatch Prekindergarten Instant Classroom
<p>Demonstrate language and literacy activities based on scientifically based reading research to support the age-appropriate development of:</p> <ul style="list-style-type: none"> • recognition, leading to automatic recognition, of letters of the alphabet; • knowledge of letter sounds, the blending of sounds, and the use of increasingly complex vocabulary; • an understanding that written language is composed of phonemes and letters each representing one or more speech sounds that in combination make up syllables; • spoken language, including vocabulary and oral comprehension abilities; and; • knowledge of the purposes and conventions of print 	<p>Emergent Literacy – Language Story reading with rich discussions & vocabulary building with read aloud lesson plans attached Example Standards in Language Supported by the Instant Classroom: <i>NAEYC 2.E.</i> Curriculum content area for cognitive development: Early literacy. 2.E.04. Children have varied opportunities to be read books, be read to regularly, explore books on their own, have access to various types of books, be read the same book on repeated occasions, retell and re-enact events in storybooks, engage in conversation that helps them understand the content of the book, be assisted in linking books to other aspects of the curriculum. <i>Head Start 1304.21(a)(4)(iii)(ii).</i> Promote interaction and language use among children and between children and adults. Use a variety of strategies for children to learn new and interesting vocabulary, and to expand their language skills through songs, games, poems, and stories. <i>McREL Language Arts Standard</i> 8. Uses listening and speaking strategies for different purposes. 2. Uses new vocabulary to describe feelings, thoughts, experiences, and observations. 4. Uses descriptive language (e.g., color words; size words, such as bigger, smaller; shape words). 14. Understands basic conversational vocabulary.</p>

More About the Hatch Prekindergarten Instant Classroom:

The National Early Literacy Panel (NELP)⁵ found strong evidence for the importance of the following for later reading and writing skills:

- Alphabet knowledge
- Phonological awareness
- Rapid naming tasks involving either naming of letters and digits or naming of objects and colors
- Writing/writing name
- Phonological short-term memory

When integrating these findings into early childhood instruction in reading, what is recommended (and what many educators likely already practice), is a balanced approach. Such an approach combines the language- and literature-rich activities connected with whole language focused on increasing meaning, understanding, and a positive attitude toward language. With clear and direct instruction around skills needed for the development of fluency children move along to being proficient in reading⁶.

Hatch Instant Classroom:

¹ National Research Council. (2000). *From neurons to neighborhoods: The science of early childhood development*. Washington, DC: National Academy Press.

² Sulzby, E., & Teale, W. (1991). Emergent literacy. In R. Barr, M. L. Kamil, P. B. Mosenthal, & P. D. Pearson (Eds.), *Handbook of reading research* (Vol. 2., pp. 727-757). New York: Longman.

⁵ The National Early Literacy Panel. (2000). National Reading Panel reports combination of teaching phonics, word sounds, giving feedback on oral reading most effective way to teach reading. Available from <http://www.nichd.nih.gov/news/releases/nrp.cfm>

⁶ Honig, B. (1996). *Teaching our children to read: The role of skills in a comprehensive reading program*. Thousand Oaks, CA: Corwin Press.

⁷ Landry, S. (2005) *Effective Early Childhood Programs*. UTHSC & Rice University, Houston, TX.

**How the Fit 4 You™ Kit Supports Early Reading First Grants
Prepared for Hatch: March 2009**

Early Reading First	The Fit 4 You™ Kit
<p>Statutory Requirements: All applicants must meet the application requirements established in section 1222(b) of the ESEA in order to be considered for funding. All applications must include a description of the following:</p>	<p>The Fit 4 You™ Kit offers classroom-tested strategies and activities. These are categorized in areas that offer content needed to prepare children for kindergarten; such as literacy, language, and math; to be taught to children in an intentional but playful manner. In addition, activities to support awareness for physical development and nutrition are in this kit. The strategies and activities follow the findings of the National Early Literacy Panel and are aligned for you with standards and guidelines from key groups in the early childhood field, such as NAEYC (National Association for the Education of Young Children), and Head Start. The USDA MyPyramid program has reviewed this kit and posted Hatch as a supportive partner in fighting obesity in young children.</p>
<p>How the proposed project will enhance the school readiness of preschool age children in high-quality oral language and literature-rich environments</p>	<p>The Fit 4 You™ Kit provides the teacher with already designed and tested research-based strategies and activities that can be used quickly and easily. The strategies and activities, which are playful, engaging, and purposeful; are in the important school readiness skill areas of pre-literacy, language, math, physical development and nutrition and are tied into national pre-k standards, which further strengthens the early childhood program and outcomes for the children they serve. All activities in Fit 4 You™ are language focused.</p>
<p>How the proposed project will provide services and use instructional materials that are based on scientifically based reading research on early language acquisition, pre-reading activities, and the development of spoken vocabulary skills</p>	<p>This kit makes best use of instructional time by providing interactive activities in the classroom, outside the classroom and at home. All strategies, activities, and lessons are tied in a meaningful way with curriculum and standards. The entire kit does this almost effortlessly for the early childhood teacher. This is because Hatch has provided the correlations with pre-kindergarten standards and key curriculum areas that are included in a teacher quick reference lap guide on an o-ring that is easy to use, durable and can go anywhere the teacher and children go.</p>
<p>How the proposed project will help staff in the programs to meet more effectively the diverse needs of preschool-aged children in the community, including such children with limited English proficiency, disabilities, or other special needs</p>	<p>The Fit 4 You™ kit is designed to engage young children in fun, motivating, and developmentally appropriate strategies and activities that are based on scientific research and developmental milestones. The kit is comprised of everything a teacher would need to plan for developing four important early childhood skill areas. These areas are cognitive, social/emotional, physical development and nutrition awareness. Children with diverse needs will benefit from the activities found in the kit. Teachers are guided to support children in the level of development they are in and provide scaffolding opportunities for them to continue their development.</p>

Early Reading First	The Fit 4 You™ Kit
<p>How the proposed project will help children, particularly children experiencing difficulty with spoken language, pre-reading, and early reading skills, to make the transition from preschool to formal classroom instruction in school</p>	<p>The teacher Quick Reference Guide found in the kit is designed such that after a teacher models for the child, then she or he can guide the child in reproducing the behavior, determining along the way if the skill should be presented more simply or in a more advanced manner for the child, and finally seeing the child carrying out the target end behavior on their own. Children can learn very effectively when an adult scaffolds the instruction. This also helps children progress from being “other-regulated” (the teacher) to “self-regulated” as their attention, cognitive, language, and motor skills advance. Even further, the Fit 4 You™ recognizes that being “multi-faceted” is the new role of the preschool teacher. Teachers become organizers of the environment, facilitators, managers, and scribes for children as they play and explore with materials and activities. Just as important is the connection between home and school to involve parents with these important development skills. While doing so, the child-directed learning will add to the teacher-directed activities. This leads to a successful balance for optimal learning.</p>
<p>Purpose of Early Reading First</p>	
<p>Support local efforts to enhance the early language, literacy, and pre-reading development of preschool-aged children, particularly those from low-income families, through strategies and professional development that are based on scientifically based reading research</p>	<p>In the busy early childhood classroom, teachers need to know that the strategies and activities they plan for their children are developing cognitive and social/emotional skills. These are both supported since the Fit 4 You™ is based on the best research in the field of literacy and learning approaches for preschool children, the kit helps support local efforts as the Fit 4 You™ kit also allows teachers to expand their own strategies and activities. This enables them to build on their children’s interests and increase the number of valuable “teachable moments”. The strategies and activities are the focus of this kit.</p>
<p>Provide preschool-aged children with cognitive learning opportunities in high-quality language and literature-rich environments so that they can attain the fundamental knowledge and skills necessary for optimal reading development in kindergarten and beyond</p>	<p>The integration of skills and concepts in early childhood classrooms is now known to have a major, positive impact on the social, emotional, physical, language, and cognitive development of children. It is recommended that many opportunities be given during the preschool years for exploration in a playful, supportive environment. For example, research has found that preschoolers, who experience an integrated approach to learning develop “time windows” of knowledge that can be tapped later on in school and life. Among others, these included gains in knowledge, long-term memory, verbal skills, problem solving, and physical development, all skills that support reading in the early stages and throughout all the school years.</p>

Early Reading First	The Fit 4 You™ Kit
<p>Integrate scientifically reading research-based instructional materials and literacy activities with existing programs of preschools, child care agencies and programs, Head Start centers, and family literacy services</p>	<p>The Fit 4 You™ kit was developed with the capability to be used in all early childhood education settings, whether single or mixed delivery. The learning standards that accompany each set of activities within the system are drawn from all types of learning environments. The "Fitness At Home" section of the teacher quick reference guide enables the teacher to provide a connection with cognitive, physical development and nutrition awareness at home. Books with realistic pictures of healthy food choices to be sent home with a read aloud label attached to the back for discussions between parent and child make the connection for the child.</p>
<p>Demonstrate language and literacy activities based on scientifically based reading research to support the age-appropriate development of:</p> <ul style="list-style-type: none"> • recognition, leading to automatic recognition, of letters of the alphabet; • knowledge of letter sounds, the blending of sounds, and the use of increasingly complex vocabulary; • an understanding that written language is composed of phonemes and letters each representing one or more speech sounds that in combination make up syllables; • spoken language, including vocabulary and oral comprehension abilities; and; • knowledge of the purposes and conventions of print <p><i>Continued on next page...</i></p>	<p>Herein lies the "heart" of the Fit 4 You™ Kit. The following outlines the literacy and language activities included in the Fit 4 You™, samples of learning standards that are supported by the system, and additional support showing the scientific research basis upon which the system was built.</p> <p>Skill Development Emergent literacy (phonological awareness, alphabet knowledge, writing and language development), and physical development and nutrition awareness activities are located in this category. Research-based activities are found in each of these cognitive areas.</p> <p>Nonfiction Books Children need exposure to nonfiction books. Healthy eating books with a connection to the USDA MyPyramid program are found in this kit. Read aloud labels to guide the teachers to give the most optimum experience for children have been developed to accompany the books. Connections outside the read aloud are found in the teacher quick reference guide making connections with areas for cognitive development.</p> <p>Specific Skills Areas connected to ERF: Emergent Literacy –Alphabet Knowledge Letter Recognition Example Standards in Alphabet Knowledge Supported by the Fit 4 You™ Kit: McREL Language Arts Standard 5. Uses the general skills and strategies of the reading process. 6. Knows some letters of the alphabet, such as those in the student’s own name. CTB Guideline IV. Children will gain literacy and language learning. Goal 1. Listening. 5. Children will be able to identify letter-sound relationships.</p>

Early Reading First	The Fit 4 You™ Kit
<p>Demonstrate language and literacy activities based on scientifically based reading research to support the age-appropriate development of:</p> <ul style="list-style-type: none"> • recognition, leading to automatic recognition, of letters of the alphabet; • knowledge of letter sounds, the blending of sounds, and the use of increasingly complex vocabulary; • an understanding that written language is composed of phonemes and letters each representing one or more speech sounds that in combination make up syllables; • spoken language, including vocabulary and oral comprehension abilities; and; • knowledge of the purposes and conventions of print 	<p>Emergent Literacy – Writing Name Writing; Writing Other Letters, Numerals & Words; Using Capital Letters & Punctuation. Writing journals and schedules in all the centers including Dramatic Play Example Standards in Writing Supported by the Fit 4 You™ Kit: McREL Language Arts Standard 1. Uses the general skills and strategies of the writing process. 1. Knows that writing, including pictures, letters, and words, communicates meaning and information. Head Start 1304.2(a)(4) (iv). Support emerging literacy and numeracy development through materials and activities according to the developmental level of each child: Help children to see the functional uses of print in the program.</p> <p>Emergent Literacy – Language Dramatic Play, Vocabulary Building, Book Reads Example Standards in Language Supported by the Fit 4 You™ Kit: NAEYC 2.E. Curriculum content area for cognitive development: Early literacy. 2.E.04. Children have varied opportunities to be read books, be read to regularly, explore books on their own, have access to various types of books, be read the same book on repeated occasions, retell and re-enact events in storybooks, engage in conversation that helps them understand the content of the book, be assisted in linking books to other aspects of the curriculum. Head Start 1304.21(a) (4)(iii) (ii). Promote interaction and language use among children and between children and adults. Use a variety of strategies for children to learn new and interesting vocabulary, and to expand their language skills through songs, games, poems, and stories. McREL Language Arts Standard 8. Uses listening and speaking strategies for different purposes. 2. Uses new vocabulary to describe feelings, thoughts, experiences, and observations. 4. Uses descriptive language (e.g., color words; size words, such as bigger, smaller; shape words).14. Understands basic conversational vocabulary.</p>

More About the Scientific Research Basis of the Fit 4 You™ Kit

Fit 4 You™ Kit and Emergent Literacy

The formation of reading and writing concepts and skills is a process that is dynamic in the earliest stages of children's literacy development¹. The emergent literacy perspective holds that for young children, reading and writing develop hand-in-hand and are strengthened through experiences that encourage meaningful interaction with written and oral language². Examples are following along in a book as an adult reads aloud or telling a story through a drawing³. By way of being exposed to written language, preschool children come to have an awareness of print, letter naming, and phonemic awareness. Experiences with oral language allow for the development of listening comprehension, vocabulary, and language competence. A thorough review of the emergent literacy literature suggests that early childhood literacy experiences affect successful reading acquisition. Research findings can inform preschool classroom instruction in emergent literacy in the following ways⁴:

- Reading and writing experiences with print facilitate the development of understanding the purpose, conventions, and functions of print for preschool children;
- Interacting with others who are modeling language (both oral and written) helps children learn how to pay attention to language and apply what they have learned to literacy situations;
- Phonological awareness and letter recognition in particular facilitate beginning reading acquisition by assisting children to develop effective word-recognition strategies (e.g., detecting pronunciations and storing associations in memory); and
- Storybook reading, both the content and the interaction between the teacher and children, has an impact on children's attitudes, knowledge, and strategies toward reading.

The National Early Literacy Panel (NELP)⁵ found strong evidence for the importance of the following for later reading and writing skills:

- Alphabet knowledge,
- Phonological awareness,
- Rapid naming tasks involving either naming of letters and digits or naming of objects and colors,
- Writing/writing name, and
- Phonological short-term memory.

When integrating these findings into early childhood instruction in reading, what is recommended (and what many educators likely already practice), is a balanced approach. Such an approach combines the language- and literature-rich activities connected with whole language focused on increasing meaning, understanding, and a positive attitude toward language. With clear and direct instruction around skills needed for the development of fluency children move along to being proficient in reading⁶.

Teacher Talk: Emergent Literacy References

¹ National Research Council. (2000). *From neurons to neighborhoods: The science of early childhood development*. Washington, DC: National Academy Press.

² Sulzby, E., & Teale, W. (1991). Emergent literacy. In R. Barr, M. L. Kamil, P. B. Mosenthal, & P. D. Pearson (Eds.), *Handbook of reading research* (Vol. 2., pp. 727-757). New York: Longman.

³ Hiebert, E. H., & Papierz, J. M. (1990). The emergent literacy construct and kindergarten and readiness books of basal reading series. *Early Childhood Research Quarterly*, 5 (3), 317-334.

⁴ Gunn, B.K., Kameenui, E.J., & Simmons, D.C. (1995). Emergent literacy: Synthesis of the research. Available from <http://idea.uoregon.edu/~ncite/documents/techrep/tech19.html>

⁵ The National Early Literacy Panel. (2000). *National Reading Panel reports combination of teaching phonics, word sounds, giving feedback on oral reading most effective way to teach reading*. Available from <http://www.nichd.nih.gov/news/releases/nrp.cfm>




⁶ Honig, B. (1996). *Teaching our children to read: The role of skills in a comprehensive reading program*. Thousand Oaks, CA: Corwin Press.



**How the Hatch Prekindergarten Read Aloud Series Supports Early Reading First Grants
Prepared for Hatch: March 2009**

Early Reading First	Hatch Prekindergarten Read Aloud Series
<p>Statutory Requirements: All applicants must meet the application requirements established in section 1222(b) of the ESEA in order to be considered for funding. All applications must include a description of the following:</p>	<p>The Hatch Prekindergarten Read Aloud Series offers classroom-tested strategies and activities through reading books to young children. These are categorized in areas that offer content needed to prepare children for kindergarten; such as literacy, language, and math; to be taught to children via the printed word. The strategies and activities follow the findings of the National Early Literacy Panel and are aligned for you with standards and guidelines from key groups in the early childhood field, such as NAEYC (National Association for the Education of Young Children), and Head Start.</p>
<p>How the proposed project will enhance the school readiness of preschool age children in high-quality oral language and literature-rich environments</p>	<p>The Hatch Prekindergarten Read Aloud Series provides the teacher with already designed and tested research-based questioning strategies that can be used with an adult reading aloud with children. Each book in a collection comes with a guided reading label attached to the back of the book. These labels follow the guided reading model: Before Reading, During Reading and After Reading. Rich vocabulary words have been identified to deepen the discussion around words to increase the vocabulary of the children. The teacher has a plan at eye level to keep the attention and interest of the child or children.</p>
<p>How the proposed project will provide services and use instructional materials that are based on scientifically based reading research on early language acquisition, pre-reading activities, and the development of spoken vocabulary skills</p>	<p>This series makes best use of instructional time by providing research-based questioning techniques for the busy teacher. No yes or no questions have been included in the read aloud labels. Children will have opportunities to increase their spoken word vocabulary, sentence semantics, and higher level thinking skills.</p>
<p>How the proposed project will help staff in the programs to meet more effectively the diverse needs of preschool-aged children in the community, including such children with limited English proficiency, disabilities, or other special needs</p>	<p>The Hatch Book Series is designed to engage young children in fun, motivating, and developmentally appropriate conversations with their teacher and peers. The series is comprised of everything a teacher would need to develop a love for reading in children, while developing important language acquisition. Children with diverse needs will have positive experiences and enter into conversations more and more over the excitement of books.</p>
<p>How the proposed project will help children, particularly children experiencing difficulty with spoken language, pre-reading, and early reading skills, to make the transition from preschool to formal classroom instruction in school</p>	<p>Children who are engaged with multiple interactions with books during their prekindergarten year and have rich discussion with an adult around these books are more likely to have a larger vocabulary than those children with low or no exposure. Research also informs us that these children have a more solid foundation for language, alphabet recognition and phonological awareness than those children with low or no exposure. The Hatch Prekindergarten Read Aloud Series through the selection of theme based titles and connections to early childhood content provide an excellent tool for the teacher to achieve these goals.</p>

Hatch Solution Product Descriptions and Pricing

All of the products offered in the Early Reading First Hatch Solution have been developed by experts in the field of early childhood education, are based on scientifically sound research, are linked with state and national early childhood learning standards, and have been teacher and child tested.

Product	Description	Price
 <p>TeachSmart® Learning System</p>	<p>The TeachSmart® Learning System (TSLs) is an interactive, hands-on technology tool which enables early childhood teachers to plan for playful and purposeful activities for children. This powerful tool comprised of a computer and interactive whiteboard with built-in LCD projector offers strategies and activities that reflect the latest scientific research for pre-literacy and mathematics concept acquisition in young children. The System also includes many teacher support features such as activity plans, links to standards, the capability for teachers to design their own activities using our model, child assessments, and digital portfolios. The TSLs is also the only pre-kindergarten educational software accredited by SMART Technologies.</p>	<p>\$7,995.00</p>
 <p>Right On Target™ Kit</p>	<p>The Right on Target Kit™ is your bridge from pre-kindergarten state and national standards to the classroom. Helping teachers meet the goal of preparing children for kindergarten, it is a customized and carefully designed path for teachers to follow. Right On Target™ assists busy early childhood teachers to intentionally plan for instruction that supports school readiness. The easy-to-use Quick Reference Guide helps teachers plan for gamelike activities in different groups settings to develop critical cognitive skills such as alphabet knowledge, phonological awareness, language development, writing, and mathematics. Kits are currently available for 13 states. Hatch will develop a customized kit for your state if we do not currently carry it.</p>	<p>\$899.95</p>
 <p>The Hatch Prekindergarten Instant Classroom</p>	<p>The Hatch Pre-kindergarten Instant classroom is customized to fit the needs of your prekindergarten children and program. Aligned with the ECERS observation scale, this classroom includes all the furnishings, materials, and supplies required to establish a positive appropriate setting for young children. The content of the teaching resources is tied to alphabet knowledge, language, and other key cognitive areas. A computer with educational software is also included</p>	<p>\$9000.00 - \$13,500.00</p>

Product	Description	Price
 <p data-bbox="240 430 472 464">The Fit 4 You™ Kit</p>	<p data-bbox="532 241 1333 583">The Hatch Fit 4 You™ Kit combines exercise, wellness and awareness aligned with cognitive, social, and physical development. A teacher Quick Reference Guide is included with materials for easy use by the teacher and children, divided into three parts: Fitness Inside the Classroom, Fitness Outside the Classroom, and Fitness At Home. All three sections focus on letters, sounds, vocabulary, reading books, eating healthy, and exercise through fun and playful activities. For instance, this kit includes all the materials to turn the dramatic play center into a gym. This kit has also been listed on the USDA MyPyramid website.</p>	<p data-bbox="1354 241 1451 275">\$375.95</p>
 <p data-bbox="207 947 505 1003">Hatch Book Series with Read Aloud Labels</p>	<p data-bbox="532 602 1333 982">Hatch offers a number of Pre-kindergarten Book Collections that are highly appropriate for early childhood. Making these book collections unique is that a read aloud label comes with each book that is attached to the book's back cover. Teachers are able to glance at the back cover to support their read aloud with the children, which include Vocabulary, Before Reading, During Reading, and After Reading. Teachers will find rich vocabulary suggestions and higher level thinking questions to ensure that the children obtain the optimum read aloud experience. In addition, these books are suitable to be taken and shared at home for family book reading.</p>	<p data-bbox="1354 602 1451 659">\$45.95 - \$175.95</p>

Our skilled sales team is available to talk with you about any of these products or any of the other outstanding early childhood education products Hatch carries. You can contact them toll-free at 800.624.7968

Executive Summary

of the Report of the National Early Literacy Panel

Christopher J. Lonigan
Florida State University

Timothy Shanahan
University of Illinois at Chicago

A Scientific Synthesis of Early Literacy Development and Implications for Intervention

The National Assessment of Educational Progress reveals that 37 percent of U.S. fourth graders fail to achieve basic levels of reading achievement. The incidence of reading failure is even higher within low-income families, ethnic minority groups, and English-language learners. Large-scale studies have shown that young children—those entering kindergarten and first grade—vary greatly in their attainment of the early precursor skills that provide the launching pad for later literacy learning (West, Denton, & Germino-Hausken, 2000; West, Denton, & Reaney, 2000). What can be done in U.S. homes, preschools, and kindergartens to better prepare children to succeed in learning to read and write?

In 1997, the U.S. Congress asked that a review of research be conducted to determine what could be done to improve reading and writing achievement. The resulting Report of the National Reading Panel: Teaching Children to Read (NICHD, 2000) has been influential in helping to guide reading-education policy and practice in the United States. However, that report did not examine the implications of instructional practices used with children from birth through age 5. To address this gap in the knowledge base, the National Early Literacy Panel (NELP) was convened. The panel was asked to apply a similar methodological review process to that used by the National Reading Panel (NRP) to issues of instructional practices for young children so that parents and teachers could better support their emerging literacy skills.

NELP was appointed in 2002 and carried out its work under the auspices of the National Center for Family Literacy (NCFL). Laura Westberg, director of special projects and research at NCFL directed the effort. The National Institute for Literacy (NIFL) funded the panel's work in consultation with the National Institute for Child Health and Human Development (NICHD), the U.S. Department of Education, and the Office of Head Start in the U.S. Department of Health and Human Services. The panel included the following experts in literacy and early childhood education:

- Anne Cunningham, University of California, Berkeley
- Kathy Escamilla, University of Colorado at Boulder
- Janet Fischel, State University of New York at Stony Brook
- Susan H. Landry, University of Texas–Houston
- Christopher J. Lonigan, Florida State University
- Victoria Molfese, University of Louisville
- Chris Schatschneider, Florida State University
- Timothy Shanahan, NELP chair, University of Illinois at Chicago
- Dorothy Strickland, Rutgers University.

Questions Addressed by the National Early Literacy Panel

NELP's primary goal was to identify interventions, parenting activities, and instructional practices that promote the development of children's early literacy skills. Toward that end, the panel posed the following four questions:

1. What are the skills and abilities of young children (age birth through five years or kindergarten) that predict later reading, writing, or spelling outcomes?
2. Which programs, interventions, and other instructional approaches or procedures have contributed to or inhibited gains in children's skills and abilities that are linked to later outcomes in reading, writing, or spelling?
3. What environments and settings have contributed to or inhibited gains in children's skills and abilities that are linked to later outcomes in reading, writing, or spelling?
4. What child characteristics have contributed to or inhibited gains in children's skills and abilities that are linked to later outcomes in reading, writing, or spelling?

NELP adopted a methodology that allowed for the identification and selection of published studies relevant to the panel's questions, a coding system that allowed for the combination and comparison of studies, and an appropriate method of statistical analysis. Electronic searches were conducted using PsycINFO and the Education Resources Information Center (ERIC), and these were supplemented with hand searches of major research journals, reference checks of past literature reviews, and nominations from leading experts in the field of early literacy. These search procedures yielded more than 8,000 potential articles that were screened to determine their relevance to the research questions and their consistency with all selection criteria established by the panel. This led to the identification of approximately 500 research articles that were used in the meta-analyses conducted by the panel. The meta-analyses summarized both correlational data showing the relationships between children's early abilities and skills and later literacy development and experimental data that showed the impact of instructional interventions on children's learning.

Key Findings of the National Early Literacy Panel

Identification of the Domain of Early Literacy Skills

The panel set out first to establish which early skills or abilities could properly be said to be the precursors of later literacy achievement. This was important because, without such executive summary | developing early literacy: report of the national early literacy panel 3 a determination, it would be impossible to ascertain what programs or practices were most effective, because, even in the best of circumstances, most young children develop few conventional literacy skills before starting school. To identify the essential early skills or abilities relevant to later literacy development, the panel searched for published scientific studies that could provide correlational evidence showing the relationship between early skill attainment and later literacy growth in decoding, reading comprehension, or spelling.

Conventional literacy skills refers to such skills as decoding, oral reading fluency, reading comprehension, writing, and spelling. The use of these skills is evident within all literacy practices, and they are readily recognizable as being necessary or useful components of literacy. The term conventional literacy skills is not widely used in the field but is adopted here to distinguish between these aspects of literacy that are clearly the focus of the reading, writing, and spelling instruction provided to elementary and secondary students and those earlier-developing precursor skills that may not themselves be used within literacy practice but that may presage the development of conventional literacy skills. Conventional skills can be thought of as being more sophisticated, mature, or later-developing manifestations of reading and writing, and they are to be contrasted with precursor, predictive, foundational, or emergent skills (all terms used in this report). The report sometimes

uses, more generally, early literacy skills, which can refer to both precursor skills and the conventional literacy skills of preschool and kindergarten children.

Conventional reading and writing skills that are developed in the years from birth to age 5 have a clear and consistently strong relationship with later conventional literacy skills. Additionally, six variables representing early literacy skills or precursor literacy skills had medium to large predictive relationships with later measures of literacy development. These six variables not only correlated with later literacy as shown by data drawn from multiple studies with large numbers of children but also maintained their predictive power even when the role of other variables, such as IQ or socioeconomic status (SES), were accounted for. These six variables include

- alphabet knowledge (AK): knowledge of the names and sounds associated with printed letters
- phonological awareness (PA): the ability to detect, manipulate, or analyze the auditory aspects of spoken language (including the ability to distinguish or segment words, syllables, or phonemes), independent of meaning
- rapid automatic naming (RAN) of letters or digits: the ability to rapidly name a sequence of random letters or digits
- RAN of objects or colors: the ability to rapidly name a sequence of repeating random sets of pictures of objects (e.g., “car,” “tree,” “house,” “man”) or colors
- writing or writing name: the ability to write letters in isolation on request or to write one’s own name
- phonological memory: the ability to remember spoken information for a short period of time.

An additional five early literacy skills were also moderately correlated with at least one measure of later literacy achievement but either did not maintain this predictive power when other important contextual variables were accounted for or have not yet been evaluated by researchers in this way. These additionally potentially important variables include

- concepts about print: knowledge of print conventions (e.g., left-right, front-back) and concepts (book cover, author, text)
- print knowledge: a combination of elements of AK, concepts about print, and early decoding
- reading readiness: usually a combination of AK, concepts of print, vocabulary, memory, and PA
- oral language: the ability to produce or comprehend spoken language, including vocabulary and grammar
- visual processing: the ability to match or discriminate visually presented symbols.

These 11 variables consistently predicted later literacy achievement for both preschoolers and kindergartners. Not surprisingly, these measures were usually more predictive of literacy achievement at the end of kindergarten or beginning of first grade than of later literacy growth. The report provides an analysis of the particular relations among these variables. For instance, oral language was found to play a bigger role in later literacy achievement when it was measured using more complex measures that included grammar, the ability to define words, and listening comprehension than when measured using only simple vocabulary knowledge. Also, children’s early PA—that is, their ability to distinguish among sounds within auditory language—was found to be an important predictor of later literacy achievement, expanding on earlier NRP findings.

Instructional Practices That Enhance Early Literacy Skills

The panel also set out to identify studies that employed experimental or quasiexperimental methods to determine the effectiveness of instructional strategies, programs, or practices in imparting conventional literacy skills or any of these precursor skills to young children. The panel did not set out to find evaluations of previously identified programs or interventions but searched for all such studies that had been published in refereed journals in the English language. The panelists then grouped the identified studies into five analytical categories. The categories of intervention and the number of studies within each category included the following:

- Code-focused interventions ($n = 78$): Interventions designed to teach children skills related to cracking the alphabetic code. Most code-focused interventions included PA instruction.
- Shared-reading interventions ($n = 19$): Interventions involving reading books to children. These interventions included studies of simple shared reading and those that encouraged various forms of reader-child interactions around the material being read.
- Parent and home programs ($n = 32$): Interventions using parents as agents of intervention. These interventions may have involved teaching parents instructional techniques to use with their children at home to stimulate children's linguistic or cognitive development.
- Preschool and kindergarten programs ($n = 33$): Studies evaluating any aspect of a preschool or kindergarten program. Ten studies in this category concerned one particular intervention (the Abecedarian Project). Other studies evaluated effects of educational programs, curricula, or policies, such as extended-year experience, on kindergartners.
- Language-enhancement interventions ($n = 28$): Studies examining the effectiveness of an instructional effort aimed at improving young children's language development.

The code-focused instructional efforts reported statistically significant and moderate to large effects across a broad spectrum of early literacy outcomes. Code-focused interventions consistently demonstrated positive effects directly on children's conventional literacy skills. Book-sharing interventions produced statistically significant and moderate-sized effects on children's print knowledge and oral language skills, and the home and parent programs yielded statistically significant and moderate to large effects on children's oral language skills and general cognitive abilities. Studies of preschool and kindergarten programs produced significant and moderate to large effects on spelling and reading readiness. Finally, language-enhancement interventions were successful at increasing children's oral language skills to a large and statistically significant degree. Together, these findings suggest that there are many things that parents and preschools can do to improve the literacy development of their young children and that different approaches influence the development of a different pattern of essential skills.

There is great interest in the idea of providing age-appropriate interventions. However, there were few important differences among these categories of study with regard to age; one important exception was in the area of language interventions, which showed greater effectiveness early on. Otherwise, when age-level comparisons were possible, the large and significant effects of the various interventions were obtained with groups of both younger and older children. This means that most of the types of instruction that are effective in kindergarten are very similar to those that can be used in preschool. Unfortunately, there have not been direct tests of age differentiation in early literacy instruction across kindergarten and preschool, and there are still too few studies of preschool literacy instruction to provide comparison results that can be embraced with a high degree of certainty. Future

research into this issue could shed greater light on what, to some observers, may seem a surprising finding.

Few interventions improved conventional literacy skills or the precursor skills most related to later literacy growth, the exception being code-focused interventions. One reason so few interventions were found to foster improvement in these measures is that few intervention studies with young children included measures of such outcomes. Generally, code-focused intervention studies included such measures, while studies of other instructional approaches did not. It is possible that some of these other approaches may also be effective in improving early literacy skills, but that can only be determined through studies employing such measures. Code-focused programs, book sharing, programs for parents to use at home, and language-enhancement instruction all improved children's oral language skills.

The panel wanted to determine whether any child characteristics influenced the effectiveness of the instructional interventions. In most cases, the panel could not determine the role of children's characteristics because of reporting limitations in the original studies. In general, however, variables, such as age, SES, and race, did not seem to alter the effectiveness of the various interventions, and it will take future research to determine whether certain interventions would be effective with particular groups of children.

It should be noted that the interventions that produced large and positive effects on children's code-related skills and conventional literacy skills were usually conducted as one-on-one or small-group instructional activities. These activities tended to be teacher-directed and focused on helping children learn skills by engaging in the use of those skills. Almost all of the code-focused interventions included some form of PA intervention. These PA activities generally required children to detect or manipulate (e.g., delete or blend) small units of sounds in words. Few of the interventions used rhyming activities as the primary teaching approach. Teaching children about the alphabet (e.g., letter names or letter sounds) or simple phonics tasks (e.g., blending letter sounds to make words) seemed to enhance the effects of PA training.

Limitations

The major limitation confronting any meta-analysis is the quality of the original studies that are being combined. All studies have varying degrees of weakness in their implementation and reporting. A basic premise of meta-analysis is that all studies on a particular issue would be unlikely to suffer the same problems and that the influence that such factors may have on results can therefore be analyzed and understood. The reality is that the various study-design features, demographic characteristics of participating children, and crucial elements of the educational environments are hopelessly confounded across studies. Therefore, meta-analysis provides clues to what might be influencing the effectiveness of an intervention but cannot provide the final word on such findings.

It is impossible to be certain that any meta-analysis will identify all studies on a particular topic, and any study that is not included could provide information that would be at odds with the conclusions drawn. In this case, because the meta-analysis examined only the results of published studies, it is possible that a somewhat different picture could be derived if a broader net were cast.

In this case, many substantive issues of great concern to educators and parents could not even be explored adequately because of limitations in the reporting of original studies. There are many theories, both naïve and scientific, suggesting the likelihood of individual differences in instructional effectiveness that demographic characteristics might mitigate. This meta-analysis evaluated whether such variables as race or SES mitigated or moderated the effectiveness of the various interventions. Unfortunately, it was all too rare that the original studies had provided sufficient data to allow for unambiguous conclusions to be drawn.

Future Research Directions

The NELP report provides a rich set of findings about the relationship between early developing child skills and later literacy attainment and the effectiveness of interventions for helping young children to progress toward successful literacy learning. The analyses carried out by the panel also reveal important gaps in the empirical research record that future research should address.

The panel identified which early measures of children's skills were predictive of later decoding, reading comprehension, and spelling achievement. Some of these variables—certain aspects of phonological processing, for example—have been shown in previous research to be causally connected to literacy achievement (i.e., if those skills are taught, children attain higher levels of literacy), but this is not true for all of these variables. Future research must determine whether enhanced early instruction aimed at improving skills, such as AK, concepts of print, or oral language development, would consistently lead to higher later attainments in literacy.

The panel identified a wide variety of interventions that improved children's early literacy skills, and one pattern that emerged was that the various categories of interventions had qualitatively different outcomes. For example, the code-oriented interventions improved children's knowledge of phonology and print conventions, whereas shared-book interventions enhanced children's language development. It is possible that some of these interventions would actually have a wider impact than what was determined here, but that will require that future studies of such interventions employ a wider range of outcome measures. In fact, this would be a useful research convention for early literacy-intervention research; if such studies would use a wider range of outcome measures, it would be possible to determine the breadth of impact that these interventions may have. Also, given the complementary findings for the various types of intervention, it would be helpful if researchers would undertake longitudinal studies of more complex interventions (such as combinations of the types of efforts that have worked in the past), making it possible to evaluate the long-term value of more ambitious and complete efforts to develop early literacy skills.

Finally, the NELP report found few demographic differences in children's learning patterns, and even those that were found were confounded. Future studies of early literacy skills should consider the possibly varied impact of early interventions, particularly on large and growing groups of children who struggle with literacy (such as second-language learners and children being raised in poverty). However, even if research studies are not designed to specifically answer such questions, it would be helpful if they would report their data separately for children from different demographic categories, as this would make it possible for future meta-analyses to make sense of any patterns that may exist.

Conclusions

The NELP report represents a systematic and extensive synthesis of the published research literature concerning children's early literacy skills. It provides educators and policymakers with important information about the early skills that are implicated in later literacy learning, as well as information about the type of instruction that can enhance these skills. The results also identify areas in which additional research is needed.

The meta-analyses conducted by the panel showed that a wide range of interventions had a positive impact on children's early literacy learning. However, these positive results were due to the nature and intensity of the instructional activities examined in the studies. There is now a clear need for translational research. Researchers or their agents delivered many of the interventions; examinations of more typical implementations of such programs within early childhood education are needed. Many of the

high-impact instructional strategies involved activities and procedures different from those typically seen in early childhood classrooms. These interventions were usually delivered as one-on-one or small-group activities, they occurred frequently, and they were adult-directed. Few interpretable studies evaluated the effects of merely providing a literacy-rich or language-rich classroom environment.

Finally, there were significant problems with the quality of much of the research in this area. Many studies used simple pretest-posttest designs, which provide no causally interpretable evidence, and studies often did not provide evidence that these groups were equivalent prior to an intervention or represented the same population. Often, there was evidence for group differences that existed before the start of the intervention. The panel was unable to rely on the data drawn from such badly designed studies, and they were excluded from all of the analyses reported here. These flaws do not allow appropriate postintervention differences to be attributed unambiguously to the intervention; neither do studies in which the intervention is confounded with other important factors that could be the source of any observed effects. Ultimately, building a larger and more comprehensive knowledge base concerning early literacy skill development and promotion will require more high-quality research.

References

National Institute of Child Health & Human Development. (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*. (NIH Publication No. 00-4769). Washington, DC: U. S. Government Printing Office.

NICHD—see National Institute of Child Health & Human Development.

West, J., Denton, K., & Germino-Hausken, E. (2000). *America's kindergartners: Findings from the Early Childhood Longitudinal Study, kindergarten class of 1998-99, fall 1998*. Washington, DC: National Center for Education Statistics, U. S. Department of Education, Office of Educational Research and Improvement.

West, J., Denton, K., & Reaney, L. M. (2000). *The kindergarten year: Findings from the Early Childhood Longitudinal Study, kindergarten class of 1998-99*. Washington, DC: National Center for Education Statistics, U. S. Department of Education, Office of Educational Research and Improvement.

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Appendix A

Making the Connection: The Power of Educational Technology in the Early Childhood Education Setting

Setting the Stage: How Young Children Learn

While physical, social/emotional, and cognitive functioning make up the three primary developmental domains, educators know these are interrelated in complex ways. Due to this, all the domains need attention because each influences the other. One good example is that children's early experiences are linked to their impulse management and social skills. When a child has self-regulation and can relate well to others, he or she can more fully benefit from an educational setting. This can then allow for growth in the cognitive domain. Research shows that understanding and attending to such links between domains is needed for high quality learning and development.

The landmark report "Eager to Learn: Educating our Preschoolers" highlights that young children are better able to learn than current practices sometimes allow. An educational preschool experience with the goal of preparing children for kindergarten means including more academic areas such as letters and counting, as well as helping to build traits like being inquisitive, persistent, and independent. It is possible to motivate young children to learn concepts on their level by building on their natural eagerness to learn. Combining child-directed discovery along with direct teacher instruction on basic pre-academic skills such as vocabulary, language, and math supports the most effective learning for young children.

Using Intentional Teaching Approaches with Young Children

Numerous longitudinal preschool interventions have found lasting and positive effects for children when the programs are of high quality and allow for both teacher- and child-directed learning. The following section outlines key evidence-based practices and features that represent such programs.

Program Features. Several features of preschool programs are connected to school readiness. The social relationships between teachers and children, and the nature of the classroom environment, contribute to effective learning for young children. For example, these programs have:

- A great deal of reading occurring,
- One-on-one teaching,
- Functional and environmental print displayed for children,
- The presence and use of planful lessons,
- Materials for play available that support literacy, and
- Opportunities for children to have meaningful experiences firsthand.

Teacher Practices. One of the best solutions for children being better prepared for school is for preschool teachers to be intentional in instructional practices for children. One example of an evidence-based approach to effective learning is through bringing in the three 'P's of Purposeful, Planful, and Playful©. The three 'P's work in the following way: Before choosing an activity, teachers will always first ask, "What is the purpose of this?" The answer should be:

- It builds one or more of the skills necessary for school readiness,
- It expands and builds on children's current level of understanding, and
- It encourages the understanding of new information that has direct links to what children will need to succeed in kindergarten.

Once these answers are in place, the next step involves careful planning, which will incorporate activities and materials that are purposeful but playful for young children, and that support both guided instruction and free play. This includes such areas as:

- Selecting activities that take advantage of the overlap between language, literacy, and math skill domains,
- Identifying fun phonological awareness games to use when transitioning children from one activity to another,

- Being sure books, materials, activities, games, and conversations are engaging and playful, and
- Teachers using a scaffolding approach when working with children to broaden capacities and skills.

More about Scaffolding. Scaffolding sets up a positive and meaningful interaction between the child and the teacher. With foundations in well established educational theory and practice (for example, Vygotsky’s Zone of Proximal Learning; and Differentiated Learning for individualized instruction), scaffolding allows for teachers to build on each child’s interests and level of functioning in order to develop skills. After a teacher models for the child, then she or he can guide the child in reproducing the behavior, determining along the way if the skill should be presented more simply or in a more advanced manner for the child, and finally seeing the child carrying out the target end behavior on their own. Children can learn very effectively when an adult scaffolds the instruction. This also helps children progress from being “other-regulated” (the teacher) to “self-regulated” as their attention, cognitive, language, and motor skills advance.

Overall, being “multi-faceted” is the new role of the preschool teacher. Teachers become organizers of the environment, facilitators, managers, and scribes for children as they play and explore with materials and activities. While doing so, the child-directed learning will add to the teacher-directed activities. This leads to a successful balance for optimal learning.

The Key Skill Areas for Kindergarten Readiness

Research has identified the critical skills preschoolers need to master to be successful in kindergarten:

Oral Language: It is important for preschoolers to build vocabularies that tell them about the world. They need to learn to use language to make relationships, develop categories, and solve problems.

Phonological Awareness: Using sounds in words to process spoken language is essential for successful reading later on. Young children need to become sensitive to hearing and using sounds in words.

Print Knowledge: Knowing the units of print (letters, word) and being able to connect the letter with the sound it makes forms another important foundation for successful reading; along with having a basic understanding of book and print concepts.

Math: Young children need to know that numbers show how many, describe order, and are used to measure. For geometry, early concepts mean recognizing shapes, directions, and locations; and their relationships. Classification and using information to ask and answer questions are early data analyses concepts. Preschoolers can have exposure to algebra as they learn about patterns; and that patterns represent relationships.

The Place of Assessment in Early Childhood

Assessing and teaching are highly and necessarily connected. When children are assessed as part of the teaching-learning process, teachers are able to learn what each child can do, and determine what he or she is next ready to learn. The National Education Goals Panel has developed principles and recommendations for early childhood assessments. Similar to the purpose of scaffolding discussed above, early childhood teachers can use formal and informal assessments to establish what children already know and understand, what things could be understood with more practice and experience, and what things are too difficult without providing additional support.

Assessments of children’s learning can also be utilized by teachers for feedback on their own teaching practices in order to modify curriculum, adapt instructional activities, and fine-tune classroom routines to be the most effective possible.

The Role of Technology in Educating Young Children

It is well established that three and four year olds need a strong focus on cognitive development along with attention to their social/emotional development to be ready for kindergarten. Technology can play a key role in this preparation. Experts confirm that preschool age children are developmentally ready and able to benefit from instruction with technology. The use of educational technology is now known to have a major, positive impact on the social, emotional, language, and cognitive

development of children. It is recommended that many opportunities be given during the preschool years for exploration using technology tools in a playful, supportive environment. Researchers further agree that a number of technology applications have the potential to support and extend learning in the young child through their unique capability to provide excellent instruction in these important developmental areas that are critical for educational success. For example, research has found that preschoolers, who used computers with supporting activities for key learning goals, had more gains than children without computer experiences. Among others, these included gains in knowledge, long-term memory, verbal skills, problem solving, and manual dexterity.

Powerful Technology: The TeachSmart® Learning System

The TeachSmart® Learning System is an interactive, hands-on technology system with tools that help both learners and educators. The System comes with a computer, LCD projector, the SMART Board™ Interactive Whiteboard, the SMART Recorder, and hundreds of research- and classroom-tested learning strategies and activities. It is the most efficient and effective tool in education today because it enables educators to provide interactive learning environments in today's 21st century classrooms. Educators can have confidence in the integrity of the TeachSmart™ Learning System, with the SMART Board component having won such awards as a 2007 Technology & Learning Award of Excellence and a 2007 Education Software Review Award, and the research- and classroom-tested instructional content package provided in this product.

The TeachSmart® Learning System is so complete that it can be used all throughout the instructional day. It makes gaining knowledge and skills fun for children while cutting down the teachers' work considerably. With one touch educators can create digital portfolios, documentation for assessments, and show what is being taught daily.

Many exciting features include:

- The SMART Recorder can show the child physically using an activity while also hearing the child explain his/her thought process.
- To be most effective, delivering educational content must be tied to knowing that children are learning and mastering the key preschool skills. TeachSmart™ includes a wide selection of assessment activities already designed and connected with skill areas. Teachers will also be able to develop their own customized progress monitoring and assessments.
- A powerful feature is that children's individual work and progress can be shared with the child and with parents. Children can benefit from seeing their own work samples as evidence of their growth and progress. For parents, documentation of their child's work in the context of conferences or evaluations allows them to learn about the curriculum and to have knowledge and expectations about their child's performance that are appropriate. This makes them feel more a part of their child's education and will encourage parent involvement, which research shows is strongly connected to children's success in school.

What Makes the TeachSmart® Learning System So Appropriate for Early Childhood?

The TeachSmart® Learning System is highly suitable for early childhood classrooms because it allows the children a connection between learning and technology in fun and engaging ways. It is essential that teachers in all early childhood settings have the right technology to assist them in meeting these goals for the children in their own classrooms. The technology and instructional content combines the educational theories of Piaget and Vygotsky. Using the Interactive Whiteboard component of the System, children will be able to construct their own knowledge while exploring on their own or with the guidance of a facilitator (Piaget). The teacher is engaged directly with the child for rich language, stimulation, and scaffolding to assist and strengthen the child's capabilities (Vygotsky). Early childhood classrooms should encourage playful activities that are purposeful. The Learning System provides that important balance between discovery and intentionality.

The Learning System is a powerful tool of choice for striking this balance. It provides the teacher with already designed and tested research-based strategies and activities that can be used with just a touch. The strategies and activities, which are playful, engaging, and purposeful; are in the important skill areas of pre-literacy, language, math, social studies, and science; and are tied into national pre-k standards, which further strengthens the early childhood program and outcomes for the children they serve.

In the busy early childhood classroom, teachers need to know that the strategies and activities they plan for their children are developing cognitive and social/emotional skills. This includes basic skill building as well as remediation or enrichment. For example, the Learning System also allows teachers to create their own strategies and activities. This enables them to build on their children's interests and increase the number of valuable "teachable moments". The strategies and activities that come pre-loaded can serve as excellent models for teachers to develop their own customized activities and strategies.

What does the TeachSmart® Learning System "Look Like" When Implemented in the Early Childhood Classroom?

The TeachSmart® Learning System will assist preschool teachers to teach "smarter" not harder. In essence it serves as a type of co-teacher to engage young children in fun, motivating, and developmentally appropriate strategies and activities that are based on scientific research. The Interactive Whiteboard component in particular supports this goal through displaying information visually, being able to keep and improve lessons, see children's work immediately, and the vast opportunities to explore knowledge. The Learning System can quickly be customized to an individual child or group of children based on their learning styles, functioning levels, and interests. Children with special needs and children learning English as a second language are well supported as well with the System.

The best use of educational technology depends on linking tested strategies, activities, and lessons in a meaningful way with curriculum and standards. The entire TeachSmart® Learning System does this almost effortlessly for the early childhood teacher. This is because Hatch has provided the correlations with pre-kindergarten standards and key curriculum areas, and designed strategies and activities that come pre-loaded on the System showing these connections. This allows teachers to get started right away and to quickly see benefits for their children.

Sources

Landry, S. & James Baker Institute for Public Policy, Rice University. Copyright, 2004. *Effective Early Childhood Programs: Turning Knowledge Into Action.*

Eager to Learn: Executive Summary. 2000. (Eds) B.T. Bowman; S.M. Donovan; & S.M. Burns.

National Research Council. Washington, DC: National Academy Press.

Haugland, S.W. 2000. What role should technology play in young children's learning? Part 2. Early childhood classrooms in the twenty-first century: Using computers to maximize learning. *Young Children* 55 (1): 12-18.

Murphy, K., DePasquale, R., McNamara, E. 2003. Meaningful connections: Using technology in primary classrooms. *Beyond the Journal: Young Children on the Web.*

Clements, D.H. 1994. The Uniqueness of the Computer as a Learning Tool: Insights from Research and Practice. (Eds) J.L. Wright & D.D. Shade. *Young children: Active learners in a technological age*, pp. 31-50. Washington, DC: National Association for the Education of Young Children.

Hall, T. 2002. *Differentiated instruction.* Wakefield, MA: National Center on Accessing the General Curriculum. Retrieved April 25, 2008 from http://www.cast.org/publications/ncac/ncac_diffinstruc.html

National Education Goals Panel. 1998. *Principles and Recommendations for Early Childhood Assessments.* Washington, DC: U.S. Government Printing Office.

Christenson, S. & Sheridan, S. 2001. *Empirical Base for Family Involvement.* New York: Guilford Press.



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