



WHITE PAPER

A Quantum Leap: Frog Street Pre-K and Improving Head Start School Readiness to Sustain Program Effectiveness

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Summary

In general, results of the Third Grade Follow-up to the Head Start Impact Study: Final Report show that while the federally funded preschool program benefited children's learning and development, those improvements had mostly dissipated by the end of 3rd grade. Specifically, findings of a randomized, controlled study of nearly 5,000 children reveal that the positive impacts on literacy and language development demonstrated by children who entered the program at age 4 had dissipated by age 8 or 9. Head Start participants were, on average, academically indistinguishable from their peers who had not participated in the program. While challenging, the aforementioned findings present the opportunity to think more broadly about expanding the use of evidence-based curriculum to improve school readiness and sustain the effectiveness of program cognitive, social-emotional, health, or parenting outcomes of participating children. Consistently, Frog Street Pre-K (FSPK) is a comprehensive bilingual curriculum designed for three and four year olds to promote progress toward school readiness goals. In order to help children start school ready to succeed, this cutting-edge curriculum clearly aligns to the Head Start Program Performance Standards in all learning domains: language, cognitive, physical, social and emotional, as well as support for Approaches to Learning goals. Also, a value-added benefit of FSPK is the Head Start goals are at point of use for each lesson. In addition, the high-quality curriculum is based on the most current research in early childhood education including brain development findings. Well-grounded in a deep knowledge of child development, FSPK is uniquely positioned to empower Head Start educators and policymakers to know not only what to teach but also the how and why of innovative instructional strategies to improve school readiness and sustain program effectiveness beyond the 3rd grade. In conclusion, the Frog Street difference is our teacher-driven dedication to continually improving state-of-the-art programs and products based on current research and input from early childhood experts, classroom educators and caregivers.

Frog Street Pre-K Fundamentals

Frog Street Pre-K (FSPK) is a comprehensive, research-based program that integrates instruction across developmental domains and early learning disciplines. The bilingual curriculum is organized into five domains and five skill/content areas that support integration and builds connections between and among all disciplines. In addition, the high-quality curriculum is engaging for both teachers and children (three and four year olds)—and is easy to implement.

The foundation of the FSPK curriculum includes five strategic cornerstones:

- Integration of theme, disciplines, and learning domains
- Social and emotional development
- Differentiation of instruction
- Equity of English and Spanish materials and instruction
- Child-centered approaches toward learning.





In general, FSPK aligns to the Head Start Program Performance Standards in all learning domains: language, cognitive, physical, social and emotional, as well as support for Approaches to Learning goals. Specifically, the cutting-edge curriculum encompasses a growing body of evidence-based practices to encourage: physical development and health; social and emotional development; approaches to learning; logic and reasoning; language development; creative arts expression; and literacy, mathematics, science, and social studies knowledge and skills. This white paper provides a brief discussion of state-of-the-art Frog Street strategies to improve school readiness and sustain Head Start program effectiveness beyond the 3rd grade.

I. Integration of Developmental Learning Domains, Disciplines and Themes

Developmental Learning Domains:

A unique benefit of FSPK is the Head Start goals are at point of use for each lesson. The curriculum provides a carefully crafted program of intentional instruction in five domains: physical development, social and emotional development, cognitive development, language development and approaches to teaching. Children are exposed to varied activities from each domain each day, providing an optimal learning environment (Schiller, 1999, 2001, and 2010). Physical activities are built into the instructional day and social and emotional needs are addressed through classroom routines, child centered activities as well as explicit instruction.

Frog Street utilizes a variety of proven early childhood teaching approaches including small groups, individual activities, cooperative strategies and whole group

routines. Also, a variety of modalities are addressed through music, movement, problem solving, and interactive activities. This ensures all children get a chance to experience the curriculum in a variety of ways which in turn leads to greater mastery of concepts (Scott, et al, 2010).

Early Literacy:

Frog Street recognizes that early literacy plays a key role in enabling the kind of early learning experiences that research shows are linked with academic achievement, reduced grade retention, higher graduation rates and enhanced productivity in adult life (Strickland, Riley-Ayers, 2006). Consistent with findings of the National Early Literacy Panel (NELP) report *Developing Early Literacy*, FSPK understands the importance of language as a social and academic function—and academic areas of early childhood literacy include: phonological awareness; alphabet knowledge; oral language and vocabulary; comprehension and written expression (National Early Literacy Panel, 2008; and Lonigan and Shanahan, 2012).

Mathematics:

FSPK provides purposeful, engaging mathematical investigations and activities that build upon children's informal understandings of patterns, numbers, measurement and shape. The knowledge and skills learned can be summarized in relationship to the critical content domains recommended by the National Council of Teachers of Mathematics. Frog Street recognizes that although young children have an innate number sense, certain instructional strategies (e.g., sequential development of skills with validation) can enhance those capabilities and prepare children to be more successful in learning





arithmetic operations (Sousa 2008b). FSPK also incorporates STEM education, an approach to teaching and learning that integrates the content and skills of science, technology, engineering, and mathematics. Thus, the curriculum provides a detailed scope and sequence of intentional mathematics instruction—and relates this intuitive knowledge to academic vocabulary and concepts that form a foundation for children to succeed in both kindergarten and primary school.

Themes:

FSPK was designed to meet current early childhood standards within the learning disciplines. Consistent with Head Start, a series of nine themes provide instruction across domains and content areas: Social and Emotional Development, Language and Literacy, Mathematics, Science, Social Studies, Fine Arts, Physical Development, Social Studies, and Technology. Because the brain learns through patterns and connections, a thematic approach is best suited for younger learners (Sousa 2008a). Research results have consistently shown that children in integrated programs demonstrate academic performance equal to, or better than, children in discipline-based programs. Also, these children are more engaged in school, and less prone to attendance and behavior problems (Drake and Reid, 2010.) In addition, children learn by active engagement with their environment and through social engagement with other human beings. Multiple complex and concrete experiences are essential for meaningful learning and teaching (Caine and Caine, 1991). The aforementioned themes and the instruction contained therein provide these elemental experiences.

II. Social and Emotional Development

At the heart of FSPK is Conscious Discipline® (Becky Bailey, 2001), a research-based program that develops social and emotional intelligence. Children learn best in an environment where they feel safe and free from stress (Jensen, 2005, Sousa, 2005). This is particularly true for the preschool classroom because the optimum window for children to wire for social and emotional intelligence is between birth and four (Ramey and Ramey, 1999 and 2004). Daily routines such as Greeting Circle, Kindness Tree and the Celebration Center are among the many ways that children learn to share emotions appropriately and interact socially with peers and teachers. In addition, appropriate behaviors are modeled throughout each instructional day and children are encouraged to share Conscious Discipline strategies, songs and rituals with their family at home. The Family Connections CD provides various take home resources for this purpose.

III. Differentiation of Instruction

In order to meet the diverse needs of the children in the Pre-K classroom, Frog Street provides options for English Language Learners, Special Needs students as well as advanced learners. Differentiation of instruction recognizes and responds to student differences in readiness, interests and learner profiles. FSPK also provides for small group instruction which allows teachers to teach within each child's optimal learning level, or "zone of proximal development" (ZPD) (Vygotsky, 1978). ZPD is based on the understanding that learning will not occur at its optimal level if children are not challenged enough (Tomlinson et al., 2003) or if they are over-challenged and frustrated (Kapusnick and Hauslein, 2001).





Recommendations for adapting the instruction to meet the needs of the small group are available in the Frog Street Teacher Guides at point of use. Teachers are given simple tools to monitor student progress so that instruction can be tailored to meet the need of the child. Materials such as the Developmental Storybook and Strategy Cards provide appropriately leveled instruction for students in the Frog Street classroom. Learning Center and Practice Center adaptations are at point of use in each teacher guide to meet individual needs. *Adaptations for Young Learners* Teacher Guide targets forerunner skills in Literacy and Mathematics for children in need of prerequisites needed for four year old competencies.

IV. Equity of English and Spanish Instruction and Materials

FSPK enhances the bilingual and dual language classroom by providing equitable materials in both languages. Bilingual education is defined as the use of two languages in school—by teachers or students or both—for a variety of social and pedagogical purposes (National Association for Bilingual Education, 2014). Because it is impossible to totally separate language and culture, the term bilingual education includes the concept of bicultural education (Thomas and Collier, 2003). Frog Street provides all teachers dialogue and instructional materials in both English and Spanish. Literature and oral stories feature adaptations from English into Spanish to preserve instructional content. Many stories originated in Spanish and were sensitively adapted into English—and authentic stories from Hispanic culture are featured by authors, Isabel Campoy, Ph.D. and Alma Flor Ada, Ph.D. The Cultural Rhymes Flip Book is a resource to celebrate the various rhymes and chants from nine cultures.

Research results show a clear link between appropriate bilingual materials and curriculum and academic achievement (Oakes and Saunders, 2002). Children in the bilingual FSPK classroom are well positioned for future success in both school and the community.

V. Child-Centered “Joyful” Approaches Toward Learning

FSPK teacher training and resources encourage “joyful” child-centered approaches that foster learning opportunities based on brain development research and best practices in early childhood. Daily activities allow children to explore, create and play within the framework of the curriculum. These practices have been shown to improve academic achievement as well as to increase social and emotional competence and a sense of well-being.

Frog Street definitions of high-quality preschool settings often include characteristics of the adult–child interactions, such as sensitivity and stimulation (e.g., responsiveness to the children’s needs and signals, positive affect, and frequent verbal and social interaction). Factors important for school readiness also include the amount of time being read to, one-to-one teaching interactions, engagement with functional and environmental print, use of well-planned lessons, and incorporating materials in play that promote literacy, math, and science in play settings. In addition, other significant factors described as key for an effective learning environment include the physical setup and richness of a child’s classroom.

FSPK recognizes that learning is inhibited when children do not feel emotionally safe (Jensen, 2005; Sousa, 2008a; Goleman,



1998). The curriculum offers specific social interactions and daily routines to encourage a foundation of safety and caring. Also, children learn better in smaller spaces (Epstein, 2007); this practice is supported through small group instruction and learning centers. In addition, when children are offered choices, especially about learning activities, they feel more positive about their work and, at the same time, they feel less anxiety (Jensen, 2005). Choices allow learners to reach self-determined goals, sparking and maintaining motivation among children, which is critical to learning (Schiller, 1999 and 2010). Finally, adult-child verbal and social interactions are encouraged via reciprocal exchanges in dialogue and included in lessons through Read Aloud, Literacy and Math Small Group, and Learning Center Reflect questions.

VI. Brain-based Learning

In "How the Brain Learns", Dr. David Sousa notes that sustained practice over time, called distributed practice or the spacing effect, is the key to retention. Practice that is distributed over longer periods of time sustains meaning and consolidates the learnings into long-term storage in a form that will ensure accurate recall and applications in the future (Sousa, 2008a). Consistently, Frog Street provides a lesson structure that empowers the teacher to present information in such a way that will optimize children's ability to learn and then retain and apply that new knowledge to other areas of learning.

FSPK encourages a brain smart learning environment with suggestions for transitions, scheduling and room layout. Too much stimuli is overwhelming to young children who are not as skilled at determining which stimuli to accept and

which to reject. Less is more visually but less is also more when it comes to the amount of information. Working memory must process the information that is allowed into the brain which has limited capacity (Sousa, 2008). For children younger than age five, an average of two items are memorized—and for children between age five and fourteen, an average of five items are memorized (Cowan, 2001). Thus, when providing new information to children we must be careful not to over stimulate (Perry, 2001). In summary, the curriculum encompasses a growing body of evidence-based practices and brain based research to encourage the social and emotional, physical, language and cognitive development of a child.

VII. Research-Based Best Practices

Leveraging Results of the NELP Report:

Using the landmark National Early Literacy Panel (NELP) Report as a guide, FSPK incorporates research based instructional models and innovative strategies to strengthen early literacy outcomes for young children—and ensure long term memory, alertness, and information processing based on brain science research. The NELP report represents a systematic synthesis of the research literature concerning children's early literacy skills. Results of the meta-analyses show 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. Other results show that high-impact instructional strategies usually occurred frequently, were adult-directed, and delivered as one-on-one or small-group activities. Education and policy-makers are provided with important information about the early skills that are





implicated in later literacy learning, the type of instruction that can enhance these skills, and the areas in which further research is required. Still other results show that the development of a more comprehensive knowledge base concerning early literacy skill development demands more rigorous research combined with strong methodology (Lonigan and Shanahan, 2012).

Focusing on Family Connections:

Frog Street supports a supportive and positive learning environment (both at home and at school) that allows children to explore and test their abilities, improve their skill levels and enhance their social behavior. The curriculum incorporates important strategies, to highlight ways in which those positive environments can be created—and ways to bridge the gap between them to ensure early literacy development. FSPK features distinct home/school/community connections linked to thematic units and the scope and sequence. Dr. Patricia Edwards, author and past IRA President, contributed invaluable research-based best practices on family involvement to the curriculum. Family Connections resources are available for print or online (Lazar, A., Edwards, P., and McMillon, G., 2012).

Conclusion

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