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Jumpstart Safari
The Seven Sessions

Ensuring Student Success Prior to the Start of Kindergarten
Parent Involvement and School Readiness

Why Family Engagement Matters

Parents play perhaps the largest role in the development of their children. A child will have greater advantages when they can draw upon a foundation of knowledge and when teachers do not have to address deficiencies in learning once kids arrive at school. A collaborative effort among families, teachers, and community providers will maximize the insurance that children get off to a good start in kindergarten. Parent engagement in their child's education and a positive relationship between home and school are found to be major predictors of school success (Morgan et al, 2016;Hoover-Demsey et al, 2005). Children who read proficiently by the end of grade three are more likely to graduate from high school (Casey, 2013). Further research has indicated that intervening early to fill in knowledge gaps in early childhood not only promoted success in reading and math but science as well (Morgan et al, 2016). In addition to this parent involvement has been found to increase school readiness. Children ready for school tend to maintain their advantage over the elementary school years, while those that enter unprepared tend to maintain their relative disadvantage over time (Halle et al, 2012).

Why Transition Activities are Necessary

School districts on the leading edge of birth to grade 3 transitions have demonstrated success by raising the achievement of low-income students and developing

foundational skills prior to school entrance. We know that gaps between low-income and middle-class children appear early and increase over time. These gaps in academic readiness for kindergarten lead to gaps in literacy and math proficiency by grade three, which in turn leads to gaps in high school graduation rates (Jacabson, 2014; Heckman, 2012, Torgensen, 2004). We know that concentrated poverty rates remain highest in big cities, where nearly one in four poor residents lived in distressed neighborhoods in 2008-12. Recently it has been noted that suburban communities experienced the fastest pace of growth in the number of poor residents living in concentrated poverty over this time period (Ducan & Mumane, 2014). However, quality home interaction and early literacy programs yield large gains in children's learning and development (Heckman, 2014, Yoshikawa et al., 2013).

School districts play an essential role in serving as the bridge between families and community-based providers. Research findings stress the importance of insuring that all at risk children reach school entry with the strongest school readiness skills possible and the simultaneous need for school districts to support children and families so that early learning skills are sustained (Halle et al, 2012). Building capacity and improved quality learning found within communities requires professional development for families and early learning centers. School districts can serve this role by making early education a priority. Using a common vehicle with specified indicators for kindergarten entrance will ease the transition to kindergarten. This period of time often brings forth many questions about what children should do in order to be prepared for kindergarten. The early learning standards presented by the Common Core State Standards provided a document that dismissed any questions regarding what is deemed important for early learning success in kindergarten. These standards can be found in all of our sessions with activities to support the development of crucial foundations necessary for success in kindergarten.

The Seven Sessions and the Common Core Standards

Today's kindergarten classrooms continue to increase emphasis on academic standards, therefore the experiences a child has leading up to kindergarten play a crucial role in how well they will adjust to rigor found in the classroom setting (Belsky et al, 2007; Votruba-Drzal & Chase-Lansdale, 2004). The Sessions found in Jumpstart Safari support the transition experience with emphasis on the importance of the relationships between schools, home, and communities. When developing the Seven Sessions we relied on research indicators for early learning success and the premise that parent education should be sustained and not just once and done. Recognizing that many transition programs occur on the first day or a few weeks prior to the start of school, Jumpstart Safari was developed to prepare children the entire year prior to the start of kindergarten (Pinata et al, 1999). We have provided videos for demonstration purposes to assist families with the modeling of activities. In education, it is often assumed the parents know how to teach children their letters or the concepts of print, but we have often found that families like the reassurance from trained educators. Sustained family engagement is necessary for successful transitions, therefore our research was conducted beginning in September and ending in April prior to the start of school with families attending and practicing the elements provided at the demonstration sessions. We have

found that the relationships developed with families to be a crucial component of the transition to kindergarten. In turn, parents felt prepared to send their children to kindergarten.

Parent Involvement and Demonstration

In our program, we stress the importance of modeling. Students can learn a lot from specific demonstrations and application through practice (Fisher & Frey, 2008; Person & Gallagher,1983). This practice has been around for numerous years and is often associated with the Vygotskian perspective of the Zone of Proximal Development (Vygotsky, 1978). By providing the explicit and intentional steps necessary to reach a desired outcome, students learn without hesitation. Coaching by way of encouraging stretches students a bit further during each guided practice. Coaching usually occurs during the guided practice, in which students are in various stages of assuming increasing responsibility for independent strategy usage and the teacher is gradually releasing responsibility to students as they gain expertise. The exposure to foundational skills will prepare children for the steps necessary for learning how to read. By modeling how to complete a skill and then allowing students to try it themselves little by little, parents are practicing the pedagogy found with the gradual release of responsibility. By allowing students to practice along side an adult and later let them try it on their own, they are building the confidence necessary for school entrance. With transition to kindergarten, children often experience the social discomfort of leaving their parents or an early learning provider. Child-guided efforts will ease this transition and the discomfort that often arises for some families.

Parental engagement and partnerships with the school community are associated with children's later academic success, high school completion, socio-emotional development and adaption in society (Zaslow et al, 2010). Testimonial accounts after our program indicated that children and families felt more secure in their understanding of curricular components of kindergarten. This was also indicated in a study by Hoover-Dempsey et al. (2005) showing that a parent's confidence and skill in participating in their children's education helps parents become more active participants throughout their elementary school years. During our program it was evident that parents valued the time allotted for the practice of skills with an educated instructor. School district teachers, administrators, or parents that have been through the program facilitated the Seven Sessions. They provided a non-threatening atmosphere where parents worked with their children, while demonstrations were provided regarding how to complete the activities. Parents then left with confidence to continue development of the foundational skills at home with their child.

What Have We Learned from the Research?

- We have documented that of those that attended our seven sessions prior to the start of kindergarten, 90% were proficient on letter and sound identification assessments as determined by school districts in Lancaster, PA.
- Longitudinally, we have tracked participants to the end of kindergarten and then grade 3 with results showing that 95% were proficient on DIBELS in kindergarten and Grade+ testing in grade 3. These students were tracked to Pennsylvania State testing results with 85% remaining proficient.
- We recommend that this program be implemented district-wide so that all students start on the same path regardless of what elementary school they attend.
- We have found that transitions are most successful when the process is shared among multiple stakeholders including schools, families, early learning centers, and community partners.
- Transition activities work best when they are sustained during the entire year prior to kindergarten. It is also helpful to provide instruction to families about the activities, rather than filling their baskets with hand-outs only.

The Seven Sessions

Session 1: Phonemic Awareness and Alphabet Instruction

Phonemic awareness is an understanding about and attention to spoken language. It refers to the ability to recognize and manipulate speech sounds. For example, children may:

- Identify the beginning sound of "dog"- /d/
- Segment the word "rat"- /r/ /a/ /t/
- Blend the sounds /d/ /o/ /g/ into the word "dog"
- Delete the last sound of "cart" and say the word "car"

Phonemic awareness is one of the two best predictors of future reading achievement (Reutzel, 2015; Hatcher et al, 2004; Hulme, 2002; Muter et al, 2004). Additional studies showed that 4 and 5-year-old children taught segmentation and blending skills experienced significantly greater gains in phonemic awareness and letter-sound knowledge than children who were taught rhyme and alliteration skills. This was then linked to future reading ability (Yeh & Connell, 2008). In addition to this, future reading ability was linked to alphabet knowledge (National Early Literacy Panel, 2008).

The teaching of the alphabet may seem simple but it can be complex. Alphabet knowledge includes identifying letter names and letter sounds as well as knowing how to form letters. We provide instruction for the *distinctive visual feature letter-writing effect.* With this process, the letters of the alphabet are recognized through detection of a smaller set of visual features such as lines, curves, and diagonals (Reutzel, 2015, Fiset et al., 2008). Knowledge of the *alphabetic* principle, or the understanding that language is made up of discrete sounds and that letters represent these sounds, forms the beginning of

pretend reading (Stahl, 2014). For alphabet instruction to be effective, it is recommended that lessons include learning alphabet activities that require letter recognition, naming, associating the symbol with a sound, writing, discriminating the letter to be taught from other letters, and categorization of letters into upper and lowercase (Piasta & Wagner, 2010). Several researchers have noted that teaching one letter a week doesn't provide the level of intense practice for letters that children need to learn letters (Reutzel, 2015; Stahl, 2014; Piasta & Wagner, 2010).

In this session families are exposed to letters and their sounds. In order to reinforce letter sounds a Safari animal is introduced with each alphabet letter. Games are provided to practice letters and sounds. There are multiple ways to expose children to letters including letter identification, letter recognition in text, and letter formation.

Session 2: Print Concepts

Print Concepts can be divided into three aspects of print including: functional purposes, mapping elements, and technical conventions (Clay, 2000). Functions of print emphasizes the necessity of written language to express one's thoughts. Mapping speech into print include the ability to match speech sounds onto printed symbols. Students demonstrate this by understanding that speech can be written down and read. It is often taught using environmental print such as signs and logos. A big hurdle for kids is the understanding that the message of text is constructed from print rather than from the pictures. Students also begin to understand that the length of the spoken work is related to the length of the written word, so one written word equals one spoken word. The understanding of these print concepts helps children become readers.   The rules that govern written language include the technical aspects of print such as directionality (left/right and top/bottom).

The National Reading Panel (2008) found that students understanding of print concepts were moderately associated with young learners' later reading achievement. Studies on alphabet learning found that alphabet learning combined with concepts of print instruction is associated with young students' later literacy growth (Piasta & Wagner, 2010). Students often learn concepts of print when they are immersed in text with teacher guidance about the text features.

In this session families will find components of print such as sight word lists and books that provide a means to teach about the many facets of print.   As children learn to read they need to develop an understanding about basic print concepts such as letters, words, sentences, directionality, and book handling (Clay, 1991).

Session 3: Rhyming and Vocabulary

Research has shown us that children's vocabulary skills are linked to their economic backgrounds. By the age of 3, there is a 30- million word gap between children of wealthy and poor families. By 18 months, children show dramatic differences and by 2 years the disparity has grown substantially (Fernald et al., 2013).

Current literature has demonstrated that prosodic sensitivity is related to early literacy development. It has been speculated that prosodic sensitivity and early literacy might be mediated by children's vocabulary knowledge, phonological awareness, and morphological awareness (Holliman et al., 2014). Prosodic sensitivity relates to the

overarching patterns of speech encompassing rhythm, tempo, and volume (Wennerstrom, 2001). Phonological skills such as rhyme and phoneme understanding are recognized as being highly correlated and important for learning to read (Anthony & Lonigan, 2004). Prosodic sensitivity may facilitate the development of vocabulary. We like to link rhyming and vocabulary. We have found that the rhyming of words leads to new words and builds vocabulary. Coupled with this practice, we have combined informational and fiction text to assist with the development of vocabulary.

Informational books contain many content words that children are not often exposed to. We have discovered that many of our Safari animals are new to children. They enjoy the colorful animals and learning their names. This builds to existing vocabulary knowledge about animals. The use of pictures is also a way that we like to develop vocabulary. Through the picture exercises, students create their own sentences after learning new vocabulary associated with the pictures.

Empowering parents with the knowledge that conversations with their child builds their vocabulary is a goal of this session. Through repeated exposure and open-ended conversations, families can increase a child's vocabulary. Children need repeated exposure to words in order to learn them, sometimes as many as 200 times (Clay et al., 2007). During conversations, it is helpful for children to connect a word's meaning to their own background knowledge and experience. Word learning also increases when adults invite children to use words for themselves and then provide meaningful feedback on children's remarks (Hirsh-Pasek & Burchinal, 2006).

Session 4: Comprehension and Retelling

Comprehension is the ability to construct meaning after reading a text. It is never too early to begin the instruction of reading comprehension strategies. The sooner students realize that reading has a purpose, the better they will become at reading for meaning. Parents can assist students as they develop their comprehension abilities by modeling how to search for details in a text. The beginning stages of this process may begin by sequencing a story. Students may have to learn how to visualize in order to reflect back to the details of the story. The development of oral language skills will help facilitate this process.

Oral language development is connected with later comprehension achievement. Studies have found that elementary aged children with comprehension difficulties showed a weakness in oral language comprehension and processing (Duff & Clark, 2011; Duke, Cartwright, & Hilden, 2013). Significant oral language deficiencies in kindergarten are linked to poor reading comprehension in grade two. Further emphasizing the importance of oral language practice is the, Catts et al, 2002, study of the link between higher risks for reading comprehension problems and poor language skills in kindergarten. The National Early Literacy Panel, 2008 also found that weakness in oral language in the early grades is increasingly viewed as a factor affecting poor reading comprehension in later grades. Oral language and story structure instruction improves listening and reading comprehension (Gillam & Gillam, 2014). Guided practice using wordless picture books works as a great scaffold to books with text.

Teaching children text structure to support reading comprehension in early reading may help students comprehend, learn, and remember content (Shanahan et al., 2010). Instruction on informational text structure may be beneficial for young students.

Comprehension strategy instruction using story structure and story maps can be accomplished while listening to stories and then applied in oral language usage. We accomplish this in our session with story boards and picture cards. Story boards assist students in the retelling of stories that they hear orally an in text. Picture cards continue to develop oral language skills as students use story structure to make their own stories.

Session 5: Math and Reasoning

Exposure to math provides preschool students with the number sense needed to thrive in the school setting. Recent research has indicated that early math is a more powerful predictor of later reading achievement than early reading is of later math achievement (Duncan et al., 2007). Findings of Duncan's study support the premise mentioned earlier that math and reading skills at the point of kindergarten entry lead to academic success in later elementary years. Math skills in kindergarten predict third grade test scores in both reading and math. Exposing children to math and reasoning games will help them acquire the skills necessary for later elementary requirements. In the classrooms today, students are often asked to solve multi-step problems that require the application of logic and analysis skills. By only providing students with access to math flashcards, families and teachers are not providing students with the practice necessary for word problems. Simple addition stories will allow preschool students to develop an understanding for the true meaning of numbers and reasoning problems.

Recent research has also shown strong correlation between number-word knowledge and vocabulary (D. Ansari et al., 2003). This may suggest that having a larger nominal vocabulary helps children learn number words. pre-kindergarten math skills, many of which depend on the child's success in constructing natural-number concepts, are the single best predictor of later school achievement (Duncan et al., 2007). Early math knowledge not only predicts later math knowledge, but also later reading ability – better than early literacy, family background measures, or IQ. In other words, the acquisition of pre-kindergarten math and number concepts is vitally important to the child's later academic success (Negan & Sameck, 2012).

Additional research has shown us that wealthier children tend to develop mathematical connections more quickly because, on average, they talk more with their parents about differences in quantity. For example, they may talk about the height of buildings or trees in their neighborhood for comparison purposes. Measurement activities in the house may also take place while baking. The effects of mathematics and reading achievement at age 7 on attained socio economic status (SES) by age 42 has been examined. It was found that mathematics and reading ability both had substantial positive associations with adult SES (Ritchie & Bates, 2013). If this is the case, it is essential that we build an awareness of the importance of not only reading to children but also playing with mathematical equations.

Learning through play is still crucial for preschool students. The activities found in our math and reasoning sessions allow students to play with the Safari animals while solving word problems. Geometry activities are also found in this session and allow students to develop an understanding of shapes and how shapes can make other shapes. Parents have commented that this session was their favorite. After practice, students leave with a fuller understanding of mathematical relationships, number concepts, and

mathematical vocabulary. However, future research is needed to see the outcomes of math assessments in kindergarten after the completion of the session.

Session 6: Reading Independently

Meaningful family involvement leads to success in school. For children to read books independently, families need to be involved from day one. An important first step in supporting a love for reading begins with reading aloud to your child. When a child hears a story, there is in an increase in vocabulary, background knowledge, fluency, and an understanding of the reading process (Swick, 2009; Trelease, 2013). Children exposed to print rich environments in general have greater vocabulary and more advanced literacy skills in the early years of elementary school (Ullery et al., 2013). Shared reading experiences from an early age in child development not only fosters language development but creates a lasting bond among families as well (Karrass & Braungart-Rieker, 2005). A large longitudinal twin study supported the necessity of read-alouds from a young age. The study found that twins who have better reading abilities scores than their genetically identical siblings at age 7 score higher in follow-up reading and intelligence testing at ages 9,10, 12, and 16 years (Ritchie et al., 2015). This is critical news and supports the understanding that reading may, over time, improve general intelligence.

A common theme in the progression of learning to read is an understanding of phoneme awareness. Early on beginning readers attend to only the initial sounds in a word but then progress to initial and ending sounds and, finally, to each sound in a word (Morris et al.,2003). This leads to the learning of more words by sight. Phoneme awareness is enhanced when beginning readers developing a concept of word in text (Clay, 1991). Finger- pointing in reading solidifies this defining point, when a child recognizes that words are telling a story. The *concept of word* in text is defined as the beginning reader's ability to match spoken words to printed words while reading a sentence. In order to accomplish this skill, children need to acquire and understand many components of print.

Alphabet knowledge, beginning consonant awareness, concept of words, phoneme segmentation and word recognition all contribute to early reading development (Morris et al., 2003). Home and preschool experiences contribute to this development. After children master the alphabet and then develop beginning consonant awareness, they can use this knowledge to make further advances in reading and writing. As beginning readers, students are just figuring out how reading works. Finger pointing is crucial because it encourages them to match what they are reading, while engaging in choral reading and memorization of text. To make all this happen texts need to be simple.

This session allows families to practice the most common sight words encountered in kindergarten. We stress the necessity for children to understand all parts of the word such as the first and last letter. Games to foster the memorization of sight words are provided. Books are provided to support the natural progression of learning to read. Simple text is used as well as supporting pictures.

Session 7: Writing Independently

Reading and writing are often thought to be mirror images of each other (Reutzel & Cooter, 2011). Writing, like reading, develops after children feel confident in their

understanding of the alphabet and the words represented by letters. Many early writers make attempts to write with lines drawn to represent a message. As children begin to practice writing more frequently, they have opportunities to attend to sounds in words that they are writing. This progression from writing beginning to ending sounds in words leads to increased awareness of what a child's story actually says.

Interestingly the production of handwritten alphabet letters activated areas of children's brains identified as the *reading circuit* more than any other sensorimotor training (James & Engelhardt, 2012). Children need continual practice of letters to facilitate writing development. Providing children with journals and praising their efforts will make a lasting impression on them. Writing is the application of all the skills learned in the seven sessions. There is a lot to process while writing as a child has to orally rehearse their story and then put in down on paper. The practice of oral rehearse alone will ensure later success in the writing of stories.

Having a firm understanding of print concepts and phonemic awareness will enable students to write proficiently. As they practice the beginning stages of writing, they may only put a string of letters on paper or a wave of squiggle lines. It is necessary to have students read their "story" back to adults. The assists with the understanding that letters make words and words tell a story through sentences. Writing progresses through many stages while children develop a comfort and familiarity for the process. Eventually the letter-naming stage presents itself with one or two consonants and maybe a vowel to represent the spelling of words. Later, with continued practice of reading, students develop the ability to spell words correctly. During the transitional stage of writing, words are mixed with invented and conventional spelling.

The materials in the session will support the development of writing. There are opportunities for continued development of phonemic awareness as well as classification and oral story telling. The practice of alphabet letters using correct pencil grip will assist with the development of fine motor skills and more fluent writing in the future.

Implications

While many transition programs only provide families with a glimpse of what the kindergarten environment entails, Jumpstart Safari is a professional development program for families that if utilized will even the playing field for incoming kindergarten students. Our program emphasizes the necessity of parent involvement and student engagement. Our materials are engaging while being educational.

Preparing students for kindergarten can be a daunting task. It is essential for school districts to form relationships with families before the start of school. We believe that all children can be ready for kindergarten but only with the support of both schools and families. It is our mission to empower families and school districts so that children find success during their first days of school.

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