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The Importance of Intentional Language and Literacy Development in Early Childhood

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Abstract

Literacy and language development in early childhood has been shown to be closely correlated with future academic performance (Gullo, 2013). A strong foundation in literacy and language has the potential to affect all areas of educational growth (Copple & Bredekamp, 2009). Moreover, the role of the adult in facilitating the process of literacy and language development is highly critical for success (Heroman & Jones, 2010). Developmental theorists have variations in their views as to how children develop and learn, yet one common denominator exists with them all—the adult's role in guiding children's learning (Charlesworth, 2008). Researchers have compiled a number of interventions that can be used to enhance the development of literacy and language for children between the ages of birth to five. Many of the same intervention strategies can be used to strengthen both literacy and language, as they have been found to be inherently linked (Zero to Three, 2003). Clear connections between literacy and language include the domains of vocabulary, written language, comprehension, phonological awareness, fluency, auditory discrimination, and memory (Justice, 2010). Teachers, parents, and caregivers must be intentional in providing literacy and language interventions in early childhood, beginning at birth, in order to promote later academic success (Lawhon & Cobb, 2002).

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Introduction

Virtually everything we do in life is related to literacy and language. From the time we are born, our efforts to communicate are evident in our movements, our cries, and our attempts to make eye contact. Parents and caregivers respond by providing care, whether it is in the form of feeding, changing, bathing, rocking, singing, or talking in a soothing tone. Babies, in turn, learn to reciprocate the communication by ceasing their cries upon the deliverance of an appropriate response, or continuing the cry when an undesired response is given. In fact, most babies as young as one month old have already developed the ability to differentiate their cries to indicate a specific need including hunger, pain, sleepiness, and anger. In time, babies and toddlers begin to learn that certain articulations of sound have meanings that we call words. As children begin to make connections between words and objects, they develop the ability to communicate their own wants and needs. This process begins in early childhood as infants go from distinguished cries to cooing and babbling to speech imitation (Charlesworth, 2008). In fact, the National Institutes of Health (2014) indicated, "The first three years of life, when the brain is developing and maturing, is the most intensive period for acquiring speech and language skills" (para. 1).

Closely related to the development of language skills is the development of literacy skills. Roth & Paul (2006) pointed out, "During early speech and language development, children learn skills that are important to the development of literacy. This stage, known as emergent literacy, begins at birth and continues through the preschool years" (para. 1). Zero to Three (2003) also connected language development with literacy stating that, "Language, reading, and writing skills develop at the same time and are intimately linked" (para. 3). Although the ability to

decode words and symbols is not yet present in infants, early literacy concepts can be learned when proper interventions are provided (Charlesworth, 2008). In fact, infants and toddlers begin to cultivate literacy skills as they rapidly build vocabulary skills during the first two years of life that are essential for the development of literacy (Lawhon et al., 2002). Charlesworth (2008) also added, "If given access to books and if read to regularly during infancy, babies can learn to listen to books being read, turn pages, hold books right side up, examine pictures, and recognize and name familiar books" (p. 264). Skills such as these must first be acquired before further growth in literacy can be achieved. Other foundational literacy skills that have the potential to be developed in infancy include picture recognition, comprehension, verbal interaction, imitation of reading, and following the text with fingers (Zero to Three, 2003).

As children grow and develop in early childhood, they begin to recognize that not only do spoken words have meaning and significance, but written words do as well. Additionally, Lawhon et al. (2002) explained, "With brain maturation, repeated exposure to stimulation, and the exploration of their environment, toddlers become familiar with some language, graphic forms, and written symbols. Children as young as two years old recognize soft drink logos and fast food signs" (p. 114). With the acquisition of skills that allow children to give meaning to printed words comes the ability to exhibit emergent writing skills. What begins as scribbling, progresses into controlled linear scribbles, mock lettering, letter strings, and finally early and late invented spelling (Teaching Strategies Gold, 2017). Children then begin to build upon concepts they have already learned, discovering the fact that letters come together to form words, and words come together to form sentences. As children understand this, they literally unlock the door to a whole new world. They comprehend the fact that anything they speak can be written. Making the connection between written spellings and spoken words is known as the alphabetic

principle, a key predictor to future academic achievement and verifiable link between language and literacy (Heroman et al., 2010).

Research tells us that appropriate language and literacy development is crucial for learning and consequently affects all academic subject areas (Copple et al., 2009). Gullo (2013) noted, "The importance of early childhood education is well-established with language and literacy proficiency in the early years being viewed as a leading indicator in children's educational development" (p. 413). What does that say to the parents and educators of young children? It goes without saying that children are not innately born with the abilities to read, write, and fluently communicate their wants, needs, and thoughts. Rather, literacy and language enhancement is a developmental process, largely affected by experiences provided in early childhood (Lawhorn et al., 2002). Copple et al. (2009) supported this idea by explaining, "Acquisition of language and communicative competence (the ability to use the full array of language skills for expression and interpretation) is strongly shaped by children's experiences and environment" (p143). It is adults, in fact, who provide the interventions, tools, events and components that reinforce the foundations of literacy and language (Lawhon et al., 2002). Developmental theorists such as Jean Piaget, Lev Vygotsky, Erik Erikson, and Abraham Maslow have differing, yet somewhat similar ideas as to how children learn and what strategies should be used (Charlesworth, 2008). Techniques and approaches for literacy and language interventions may also vary depending on whether the providing adult is a teacher or a parent. Whatever the case may be, it cannot be denied that *children benefit from intentional interventions in early childhood to promote effective language and literacy development.*

How Children Learn—Developmental Theories

Jean Piaget

In order to accurately understand language and literacy development, it is first important to look at how children learn. Several developmental theorists and psychologists have paved the way and laid the foundation for what we know about early childhood education today. One of those influential theorists includes Swiss psychologist, Jean Piaget. Piaget studied cognitive development in young children and the role that language plays in the process. Piaget believed that cognitive development involved an ongoing process of children seeking equilibrium, a comfortable balance in the perception of thoughts and ideas, through assimilation and accommodation. Assimilation can be described as the process through which children integrate new experiences and freshly gained knowledge into a pre-existing base of knowledge or schema. Accommodation involves the function of changing previous beliefs based on new data and experiences that have challenged old beliefs so that another level of understanding is achieved (Follari, 2011). Piaget affirmed the importance of language and social interaction to guide the process as he stated,

> Complete reversibility presupposes symbolism, because it is only by reference to the possible evocation of absent objects that the assimilation of things to action schemes and the accommodation of action schemes to things reach permanent equilibrium and thus constitute a reversible mechanism. The symbolism of individual images fluctuates far too much to lead to this result. Language is therefore necessary, and thus we come back to social factors. (Becker & Varelas, 2001, p. 22)

Piaget also believed that both nurture and nature played significant roles in cognition and proposed that children passed through developmental stages that include sensorimotor (birth-2 years), preoperational (2-7 years), concrete operations (7-11 years), and formal operations (11-up). He held that children develop the capacity to think symbolically and use that ability to cultivate language in the preoperational stage, although critics propose that children are capable of advanced skills at earlier ages than Piaget suggested (Follari, 2011). Although Piaget acknowledged the importance of language as it relates to cognitive development, he also emphasized children's own active roles in the process (Howard, Williams, Miller, & Aiken, 2014). Howard et al. (2014) pointed out, "He (Piaget) noted that a child may neither be prematurely "taught" out of one stage into another nor develop increasingly complex schemes without interacting with the environment. Accordingly, nature and nurture are interdependent forces on development" (p. 96-97). Similarly, Piaget saw children as facilitators of their own knowledge as guiding adults provided pertinent materials and experiences that challenged their existing beliefs--a process that initiates cognitive conflict through assimilation and accommodation (Follari, 2011). Follari (2011) explained,

> Although social exchanges are a part of the picture, they are valued in terms of the impact on the individual's engagement with ideas and materials. Piaget did not necessarily believe that social dialogues played as important a role in shaping children's cognitive development as active exploration of materials. Social interactions may provide the catalyst for the child's cognitive conflict and resolution when a partner provides new information based on his or her experience or understanding. (p. 79)

Piaget's ideas are consistent with the theory of cognitive-developmental constructivism which is, "a theory of knowledge as an individual construct built through maturation and new

experiences that challenge the learner's existing knowledge" (Follari, 2011, p. 78). Charlesworth (2008) added, "Language reflects thought from the Piagetian view" (p. 413). In relation to cognitive development, Piaget focused more on language as representational, rather than social (Charlesworth, 2008).

Lev Vygotsky

The work of Russian psychologist, Lev Vygotsky, is also highly influential in its contributions to the field of early childhood education. Like Piaget, Vygotsky was known for his association with constructivism (Charlesworth, 2008). Vygotsky, on the other hand, focused on sociocultural constructivism, which proposes that knowledge is constructed and strongly influenced by social, cultural, and environmental factors (Follari, 2011). He recognized the importance of language development and adult interventions as it relates to cognitive development with his idea of scaffolding, which is known as "a teaching technique that involves giving verbal cues, prompts, and suggestions on appropriately challenging activities" (Follari, 2011, p. 42). Vygotsky proposed that adults, or even higher-functioning peers, use scaffolding to help children reach a higher zone of proximal development (ZPD), which is known as the distance between what a child can do and the level at which he or she can perform with assistance (Charlesworth, 2008). According to Smagorinsky (2013), "Vygotsky's examples suggest that the ZPD exists as an individual's zone of potential that can be scaffolded into something new by a skilled adult or more competent peer, resulting in tomorrow's new, individual competencies" (p. 199). The significance of language in the process of cognitive development was evident in Vygotsky's work as he was noted for saying, "More than just the primary vehicle for communication among people, language is the primary means by which children begin to organize their thinking" (Follari, 2011, p. 42). Language development,

according to Vygotsky, is particularly important in the toddler phase as noted by Charlesworth (2008),

> From Vygotsky's point of view, the toddler is in an important period in the development of language. Toddlers are in a critical zone of proximal development for language. Speech is essential for the development of higher mental functioning. That is, speech supports concept development. Scaffolding, support, and guidance from adults or older peers as the toddler explores his or her environment assists the toddler in reaching his or her cognitive development potential. (p. 314)

According to Vygotsky, with the proper interactions, children can actively participate in meaningful conversations by age two or three (Charlesworth, 2008). The famed psychologist made the following comment regarding children in the two to three age range, "They follow the rules of human verbal interaction by taking turns, making eye contact, responding appropriately to their partner's remarks, and maintaining a topic over time" (Charlesworth, 2008, p. 424).

Private speech, or self-talk, is a term used by Vygotsky to describe how children begin to systemize their thoughts and beliefs, beginning with audible speech and progressing to a more silent or internal means of organization (Follari, 2011). Copple et al. (2009) explained, "As Vygotsky demonstrated, much of children's understanding first occurs in communication with other people, then appears in "private speech" (thinking aloud), and eventually is internalized as thought" (p. 131). According to Charlesworth (2008), "Adults should recognize that private speech serves an important self-guiding function and should be encouraged in preschool classrooms" (p 425). Additionally, Bodrova & Leong (1998) have described private speech and materialization (the use of tangible objects to represent concepts) as techniques for raising the

ZPD of children participating Scaffolded Writing. According to Bodrova et al. (1998), "Scaffolded Writing is an innovative method of supporting emergent writing based on Vygotsky's theory of learning and development" (p. 1). Vygotsky's theory of learning valued the "cooperative relationship between adult and child as the main part of the educational process" (Charlesworth, 2008, p. 93).

Erik Erikson

Influenced by traumatic events of his time including family crises and war, German psychologist, Erik Erikson constructed his theory of lifespan development as it relates to early childhood (Follari, 2011). Erikson emphasized the importance of the adult role in children's learning and development as Follari (2011) explained, "Young children are highly susceptible to the impact of relationships with adults in their lives, including families and caregivers. Early childhood professionals must strive to form close relationships with children and always remember the emotional nature of young children" (p. 38). Erikson's lifespan theory of development (related to early childhood) includes stages of Trust vs. Mistrust (birth-1 year), Autonomy vs. Shame and Doubt (2-3 years), and Initiative vs. Guilt (4-5 years) (Cherry, 2016).

According to Erikson, success during the first stage of development (Trust vs. Mistrust) is highly dependent upon secure interactions with adults and caregivers (Follari, 2011). The Trust vs. Mistrust stage of life (birth-1 year) occurs at a point in the child's life that he or she is entirely reliant upon a trusted adult to provide basic needs such as food, water, shelter, safety, and nurture (Cherry, 2016). Follari (2011) explained, "Early experiences with parents and caregivers foster feelings of trust and security or mistrust in self and others. Responsive care-

giving is essential" (p. 40). Cherry (2016) elaborated upon the urgency of such responsive care in stating,

> If a child successfully develops trust, he or she will feel safe and secure in the world. Caregivers who are inconsistent, emotionally unavailable, or rejecting contribute to feelings of mistrust in the children they care for. Failure to develop trust will result in fear and a belief that the world is inconsistent and unpredictable. (para. 14)

Additionally, Charlesworth (2008) added, "Warmth and love, along with necessary food, result in healthy affective development for the infant. If trust does not develop, the child will become fearful, suspicious, and mistrustful" (p. 198). We can see language playing an important role throughout the process of trust development in Erikson's first stage. The reciprocity of communication is crucial, even in the first two weeks of life, for sufficient social-emotional and cognitive development (Charlesworth, 2008). Follari (2011) related this to the importance of adults providing the proper care in response to the "infant's cues for nourishment, love, play, and sleep" (p. 40).

Erikson's second stage of lifespan development (Autonomy vs. Shame and Doubt) occurs when children are between the ages of two and three and beginning to seek a level of independence (Cherry, 2016). Adults intervene by allowing children to make reasonable choices as they affirm their will (Follari, 2011). Cherry (2016) had this to say about children in the second stage, "They are starting to perform basic actions on their own and making simple decisions about what they prefer. By allowing kids to make choices and gain control, parents and caregivers can help children develop a sense of autonomy" (para. 17). As children build upon language skills attained in the first stage, they begin to develop the ability to make obvious

choices and acquire self-direction (Follari, 2011). We can see the emergence of autonomy even in the infancy stages as children slowly begin to lead interactions with adults and caregivers (Charlesworth, 2008). As autonomy emerges, it is also important for children to develop a healthy balance between independence and shame or doubt (Cherry, 2016). Charlesworth (2008) elaborated,

> Toddlers need to develop a healthy feeling of shame when they have done the wrong thing. At the same time, if feelings of shame are too strong, toddlers will doubt their own capabilities and be unable to develop a healthy sense of independence. (p. 278)

This is why purposeful interventions from the adult are so crucial. Charlesworth (2008) also explained, "The adult has to guide toddlers through this period in such a way as to encourage autonomous behavior balanced with self-control" (p. 278).

Erikson's third stage of lifespan development that occurs in early childhood is Initiative vs. Guilt (Follari, 2011). Cherry (2016) described this stage as being one in which children between the ages of four and five "begin to assert their power and control over the world through directing play and other social interactions" (para. 22). Children at this age are experiencing a strong sense of curiosity and wonder as adults intervene to promote the independent exploration of objects and materials (Follari, 2011). At the same time, the conscience develops and matures, further guiding the child through the process of building a sense of self-concept and initiative with a healthy sense of guilt throughout decision-making (Charlesworth, 2008). Cherry (2016) also added, "When an ideal balance of individual initiative and a willingness to work with others is achieved, the ego quality known as purpose emerges" (para. 24). Working successfully with others requires both social and language skills as Copple et al. (2009) explained, "In social

interaction, too, language has a clear role in the preschool years. As preschoolers gain sufficient language skills, they are able to state their feelings, desires, and ideas and respond to those of others" (p. 142).

Abraham Maslow

American psychologist, Abraham Maslow, is probably most famous for his motivational theory known as the hierarchy of needs (McLeod, 2016). Maslow proposed that certain basic needs must be met before learning can take place (Charlesworth, 2008). According to Charlesworth (2008), Maslow's hierarchy of needs (in order of importance) is as follows:

> Physical/Organizational—food, air, shelter, security; Social/Affiliation—sense of belonging, group association, self-esteem and value; Achievement/Intellectual—desire to learn, attainment of knowledge and comprehension; Aesthetic—order and balance, love; Self-Actualization—able to function appropriately in society, living to full capability and potential. (p. 509-510)

Again, the adult role in facilitating learning is essential as Charlesworth (2008) explained (in accordance with the Maslow theory), "A supportive adult and rich environment with freedom for exploration will allow learning and intellectual growth" (p. 16). This applies to both families and teachers as adults strive to provide the appropriate foundational learning environments. McLeod (2016) added, "Before a student's cognitive needs can be met, they must first fulfill their basic physiological needs. For example, a tired and hungry student will find it difficult to focus on learning" (p. 6). Additionally, children must not only have their basic physical needs met, but also their social emotional needs. In fact, both must be cultivated in order for children to have the motivation needed to learn (Charlesworth, 2008). The motivation to learn undeniably

includes the basic concepts of literacy and language. Psychologist, Haim Ginott, perhaps said it best as he asserted, "To reach a child's mind, a teacher must capture his heart. Only if a child feels right can he think right" (Gartrell, 2004, p. 25).

How Children Learn—Factors that influence learning

Environment—Negative factors

As the above theorists have already emphasized, the level of quality regarding a child's environment is highly influential to the learning process. One of the most obvious negative factors that can affect a child's environment is the presence of substance abuse. Exposure to methamphetamine, a highly addictive stimulant, is particularly dangerous for young children (Charlesworth, 2008). In fact, according to Charlesworth (2008), "The children of meth "cooks" are in danger from the toxic environment. More than 20 percent of the meth labs seized last year had children present" (p. 177). Similarly, children exposed to environments where cocaine use is prevalent are at risk for developmental delays, particularly those exposed in the womb, as Howard et al. (2014) described "subtle but significant deficits in preschoolers who were prenatally drug exposed in areas of attention, impulse control, and physiological state regulation (consistency of body temperature, heart rate, and other physical measures)" (p. 182). Additionally, in a study conducted among toddlers who were prenatally exposed to drugs and toddlers who experienced premature births, Charlesworth (2008) reported that,

> The drug-exposed toddlers were found to be developmentally behind in their performance in each play situation and negative in their attachments to their caregivers. The most insecurely attached toddlers were the ones living with their biological mothers, who continued to abuse drugs. (p. 178)

Attachment and emotional bonding are crucial to language development as infants and toddlers engage in reciprocal communication exchanges with adults that establish trust, security, and motivations for learning (Copple, 2009).

Another factor that significantly and negatively affects development is exposure to abuse and neglect (Charlesworth, 2008). According to Westling et al. (2015), approximately 681,000 confirmed cases of child abuse were reported in the United States in 2011. Children who have been abused or neglected experience problems with language development and memory as Child Welfare Information Gateway (2015) explained, "Explicit memory, which develops around age 2, refers to conscious memories and is tied to language development. Sometimes children who have been abused or suffered other trauma may not retain or be able to access explicit memories of their experiences" (p. 5). In contrast, children who have experienced abuse may retain implicit or unconscious memories of the trauma resulting in nightmares, flashbacks, or emotional outbursts (Child Welfare Information Gateway, 2015). Charlesworth (2008) reported that "the largest group of (abuse and neglect) victims is between the ages of birth and age 3" (p. 142). This is the window of time that stable attachments are to be established between children and their parents or caregivers (Copple et al., 2009). Child Welfare Information Gateway (2015) described how neglectful experiences affect attachment and language development,

> Babies need to experience face-to-face baby talk and hear countless repetitions of sounds in order to build the brain circuitry that will enable them to start making sounds and eventually say words. If babies' sounds are ignored repeatedly when they begin to babble at around 6 months, their language may be delayed. (p. 9)

Environments that consist of substance abuse and neglect or child abuse often result from the living conditions of poverty (Follari, 2011). Westling et al. (2015) reported that 45% of children living in the United States in 2011 were from low-income households and 23% of children were considered to be at the federal poverty level. Aside from the potential of abuse and drug exposure, children living in poverty are more likely to be malnourished, susceptible to environmental toxins such as lead, and least likely to be provided quality child care (Follari, 2011). Also affected is language and literacy development, which lies partly in children's limited exposure to extended vocabulary and meaningful conversations with adults (Copple et al., 2009). Copple et al. (2009) elaborated, "Children from families living in poverty or in households in which parent education is low typically enter school with lower levels of foundational skills, such as those in language, reading, and mathematics" (p. 2). With regards to the severity of the implications of poverty, Follari (2011) added, "In light of this reality, it becomes clear that families living with risk factors are in need of high-quality, comprehensive, early intervention services" (p. 139)

Environment—Positive Factors

Much can be said about the value placed upon the environments children participate in and their connections to development and learning as the NC Department of Health and Human Services (2002) elaborated, "Researchers and educators in many fields have recognized that children learn and develop in the context of their environments and have studied how everyday lives affect children's health, physical, social, and educational outcomes" (p. 4). Typically, a child's first environment is in the home where infants seek emotional security and attachments through which they develop the assurance they need to explore and learn (Copple et al., 2009). Charlesworth (2008) clarified, "They (infants) need to feel both physically and psychologically

safe. They need emotional support, to feel loved, to feel that they belong. They need to feel good about themselves. Support comes from caring adults and a well-planned environment" (p. 203).

For proficient language development, environments should be rich in social interactions with frequent and meaningful back and forth exchanges (Copple et al., 2009). These conversations cannot occur too early in life as the National Institutes of Health (2014) indicated, "The first signs of communication occur when an infant learns that a cry will bring food, comfort, and companionship. Newborns also begin to recognize important sounds in their environment, such as the voice of their mother or primary caretaker" (para. 3). Responsive and interactive environments are key both in the home and in the child-care setting as Bennett-Armistead et al. (2005) commented,

> The extent to which a mother responds to her child is one of the best predictors of many aspects of that child's language development. Responsiveness to children undoubtedly also matters in child-care settings. Whenever possible, when a child says something to you, respond. Even if the child just grunts and points, respond to his or her attempt to communicate. (p. 48)

As children grow older, it is not only important to maintain a responsive and interactive environment, but also to build upon it as Bennett-Armistead et al. (2005) clarified, "Expanding on children's articulations is one way to model more sophisticated language, as well as to recognize the importance of what children have to say" (p. 49). While expanding articulations, it is also important for teachers and caregivers to provide environments that introduce new and

challenging vocabulary words that serve to also advance their cognitive and social-emotional development (Heroman et al., 2010).

For proficient literacy development, it is important for environments to be print-rich and engaging (Bennett-Armistead, 2005). One of the easiest and most effective ways to provide a strong literacy environment is through the reading of books as Lawhon et al. (2002) explained, "Read to children. Learning to read easily is positively correlated with being read to frequently" (p. 115). Bennett-Armistead et al. (2005) noted that it is never too early to begin reading to children in stating, "By the end of infancy, children growing up in literacy-rich homes can pretend to read books, make letter-like marks, and most important, show a strong interest in reading and writing materials" (p. 7). Lawhon et al. (2002) also pointed out the benefits of a literacy-enriched environment that provides children with ample amounts of books (of varying genres) to explore, finger plays, puzzles, dramatic play materials, varieties of art supplies, and musical materials.

Typical Language Development

Language development from ages birth-three

Language starts developing in children from their earliest beginnings according to Charlesworth (2008), "Infants respond to speech from the first day of life and possibly in utero. They have been observed to synchronize their body movements to the rhythm of adult speech" (p. 421). In fact, newborns can be seen "engaging in reciprocal turn taking with care givers in the first days of life" through the blinking of eyes and specified movements of the tongue and mouth (Howard et al., 2014, p. 125). Along with other areas of child development, language tends to progress on a fairly predictable continuum as Justice (2010) further elaborated,

> One of the remarkable features of language is that it is species uniform, meaning that regardless of where a child is born and reared—whether in the Arctic, Laos, or Zimbabwe—critical language accomplishments adhere to a strikingly similar pathway. (p. 177)

These pathways for language/communication development have been identified by the Kentucky Department of Education (2013) in the Kentucky Early Childhood Standards as developmental progressions typically seen in children between the ages of birth-three and are as follows:

"Communication Standard 1—Demonstrates communication skills in order to express self

Benchmark 1.1—Engages in non-verbal communication for a variety of purposes" (p. 34).

Developmental Continuum: Infants and toddlers follow a progression of non-verbal skills from the early use of facial expressions (smiling, frowning, eye contact, etc.), to functional gestures, to the initiation of communication exchange through actions and movements (Kentucky Early Childhood Standards, 2013). Though the significance of non-verbal communication in infants is often overlooked, Willoughby, Kuhn, Wilbourn, Vernon-Feagans, & Blair (2014) noted that, "Months before infants utter their first words, they communicate with caregivers via gestures. Moreover, these gestures both predate and predict infants' oral language skills" (p. 1899). As infants use non-verbal communication to interact with others, they become "masters at attracting and holding the attention of familiar, responsive people" (Copple et al., 2009, p. 54). Additionally, the ability to use symbolic gestures (those that represent objects or actions) begins to emerge at around the ages of 13-16 months (Willoughby et al., 2014). Before the age of three, infants and toddlers can participate in conversations through non-verbal gestures that indicate yes or no or waving hello and/or goodbye (Teaching Strategies Gold, 2017). Gestures such as these

are considered intentional as Jusitce (2010) explained, "Infants demonstrate evidence of intentionality through their communicative efforts toward others, by pointing to objects, showing objects, gesturing, and using eye contact" (p. 53). Along with the ability to use gestures to communicate wants and needs, infants also use specific movements to enhance non-verbal communication as Copple et al. (2009) described,

> As they (infants and toddlers) move their arms, legs, and other body parts and encounter the world through touching and being touched, babies become more aware of how their bodies move and feel. They soon discover that they can change what they see, hear, or feel through their own actions. (p. 55)

Infants and toddlers further expand non-verbal communication skills through the movements of "kicking, reaching, grasping, pulling, and letting go" (Copple, 2009, p. 55).

"Benchmark 1.2—Uses vocalizations and/or words (verbal, signed, symbolic) for a variety of purposes" (Kentucky Early Childhood Standards, 2013, p. 36).

Developmental Continuum: The verbal skills of infants and toddlers progress from variations in voice tone and volume, to sound imitation, to spoken words, to simple conversations (Kentucky Early Childhood Standards, 2014). At around 2-3 months of age, babies move from reflexive vocalizations (crying, burping, coughing, etc.) to the production of consonant and vowel-like sounds. From there, infants advance through stages of babbling that are known as marginal babbling (4-6 months), canonical babbling (6+months), variegated babbling (9+ months), and jargon (around 12 months) (Justice, 2010). Copple et al. (2009) elaborated, "Long before they speak in words, infants coo, babble, and then make sounds that imitate the tones and rhythms of adult talk" (p. 55) As infants are developing verbal skills, they may also enjoy simple games,

such as pat-a-cake and peek-a-boo, that involve turn-taking and interactive exchanges (Copple et al., 2010). Such exchanges involve a level of intentionality on the part of the infant (Charlesworth, 2008). In fact, according to Justice (2010), "Between 7 and 12 months, infants begin to communicate their intentions more clearly than before" (p. 52). Additionally, Charlesworth (2008) described the period between 9 and 10 months in which infants develop a protolanguage ("meaningful sound combinations that are not words") that is used to intentionally communicate with others (p. 421). Typically, children will speak their first words at around the age of 12 months and by 18 months, most children will have an expressive vocabulary of approximately 50 words (Justice, 2010). As children develop functional vocabulary and semantics, we can see links between literacy and language as Lawhon et al. (2002) explained, "Combinations of words and gestures occur between 12 and 18 months and there is a rapid vocabulary growth during the second year. This language acquisition is critical for literacy" (p. 114). Verbal skills continue to develop throughout the birth-three stage as children, by the time they reach the age of three, should be able to ask questions, initiate and participate in conversations, and describe familiar people, stories, objects, and events (Kentucky Early Childhood Standards, 2013).

"Communication Standard 2—Demonstrates listening and observing skills and responds to the communication of others

Benchmark 2.1—Focuses on and attends to communication of others and to sights and sounds in the environment to gain information" (Kentucky Early Childhood Standards, 2013, p. 40).

Developmental Continuum: The Kentucky Early Childhood Standards (2013) described infant and toddler listening and observing skills as a progression that moves from the ability to respond

to sights and sounds, to focusing attention, to familiar word response, to engaging in stories and songs. Copple et al. (2009) illustrated infant observation skills, "Very young infants show a particular interest in the people around them. They like to look and listen. They like to follow the father's voice as well as the mother's" (p. 54). The infant's ability to focus attention is often learned through daily rituals and routines as Justice (2010) explained, "At bath time, infants may look back and forth between their bathtub toys and the person who is bathing them, creating periods of joint attention where baby and adult are focused on the same entity in the world" (p. 49). As infants focus attention and gain understanding of word/object associations, or labeling, they begin to appropriately respond to specified words, and can eventually (around 12 months of age) follow simple directions (Charlesworth, 2008). By the end of the first year, babies have a foundation for following the social rules of language with the ability to make eye contact when spoken to and seeking to be understood (Teaching Strategies Gold, 2017). Children in the birth-three age range also hone listening skills and develop the ability to gain knowledge through attending and engaging to simple "stories, rhymes, finger-plays, and songs" (Kentucky Early Childhood Standards, 2013, p. 40).

"Benchmark 2.2—Responds to the verbal and non-verbal communication of others" (Kentucky Early Childhood Standards, 2013, p. 42).

Developmental continuum: Infants and toddlers develop the ability to respond to verbal and non-verbal cues through a continuum that progresses from reacting to spoken words and environmental stimulus, to responding to emotions, to taking turns, to comprehending a few complex sentences (Kentucky Early Childhood Standards, 2013). Copple et al. (2009) described how infants respond to the communication of familiar caregivers,

> Reciprocal conversations take place with adults, as infants use babbles, squeaks and grunts. They begin to string together the familiar sounds of the languages in their environment into "expressive jargon" or "gibberish" that sounds a lot like sentences even though it does not contain meaningful words. (p. 61)

In connection with responding to the spoken language of others, is the ability to follow directions as Howard et al. (2014) described, "The first six months of a child's second year represent a turning point in infants' receptive language as they learn to follow simple novel commands that do not have gestures" (p. 123). Additionally, by the time they are two years old (or possibly younger), children should have the ability to name familiar objects, people, or animals upon request (Teaching Strategies Gold, 2017). As children advance their abilities to respond to the communication of others, they also acquire significant vocabulary development (Kentucky Early Childhood Standards, 2013). According to Howard et al. (2014), children, on average, develop the ability to use around 300 words by age 2 and approximately 1, 000 words by age 3. The development of vocabulary usage is highly linked to literacy as Howard et al. (2014) further explained, "It is well known that the better acquisition of vocabulary and phonological awareness are associated with children's ability to learn to read" (p. 125). Moreover, children's understanding of vocabulary and complex sentences will assist them in attaining useful information as they are exposed to a variety of sources of literature (Kentucky Early Childhood Standards, 2013).

Language Development from ages three-five

The Kentucky Department of Education (2013) has identified the following standards, benchmarks, and developmental continuums congruent with typical language (English/Language Arts) development for children between the ages of three and five:

"English/Language Arts Standard 1—Demonstrates general skills and strategies of the communication process

Benchmark 1.1—Uses non-verbal communication for a variety of purposes" (p. 78).

Developmental Continuum: Children ages three-five develop non-verbal communication skills as they progress from the ability to make relevant choices by pointing and proximity, to using gestures to indicate their wants and needs, to the expression of language through symbolic depictions (Kentucky Early Childhood Standards, 2013). Non-verbal communication is used as children ages three-five begin to appropriately follow the social norms of language by making eye-contact, pausing to let another person speak, leaning in for a conversation, and using gestures throughout communicative exchanges. Preschool children also begin to fine-tune their abilities for symbolic thinking by drawing pictures and creating various forms of art to represent other objects, people, or thoughts. Symbolic representations typically evolve from drawing and identifying simple pictures, to planning constructions and ideas, to making tally marks and attempting to label artwork (Teaching Strategies Gold, 2017). Here again, we see the close correlation between literacy and language. Charlesworth (2008) added, "Pictures inspire descriptive verbalizations and drawing also develops written language" (p. 472).

"Benchmark 1.2—Uses language (verbal, signed, symbolic) for a variety of purposes" (Kentucky Early Childhood Standards, 2013, p. 79).

Developmental Continuum: The Kentucky Early Childhood Standards (2013) has recognized a progression for which children ages three-five develop the functional use of language. The progression continues from the ability express wants and needs through conversation, to asking a variety of "wh" questions, to the expression of feelings and ideas, to fluctuating the voice to vary expression. Preschool children begin to develop more complex sentence structure as they intentionally ask questions such as "who", "what", "when", and "why" by around the age of three (Howard et al., 2014). Additionally, children at this age further enhance their conversational skills by developing the ability to relay narratives (Justice, 2010). Justice (2010) explained, "Narratives are essentially decontextualized monologues, in that rather than describing the here and now, they often focus on people or characters not immediately present or on events removed from the current context" (p. 68). As children grow and develop, the capacity for telling about other times and places becomes increasingly more detailed (Teaching Strategies Gold, 2017). An important milestone occurs when preschool students adjust from the use of exclusively contextualized speech to decontextualized language, as Justice (2010) explained,

> Decontextualized language is appropriate and necessary for discussing events and concepts beyond the here and now. These events may have occurred long ago or might occur in the future. Sometime during the preschool years, children become able to use language in a decontexualized manner. (p.67)

Moreover, Howard et al. (2014) described how 3 and 4 year-olds will often modify their expressions when communicating their experiences in order to match their audiences, "Preschoolers can be observed altering the length of sentences, affect (facial expressions, voice intonation, body language), and language content when interacting with younger children or infants" (p. 126).

"Benchmark 1.3—Communicates with increasing clarity and use of conventional grammar" (Kentucky Early Childhood Standards, 2013, p. 81).

Developmental Continuum: Preschool children developing their articulation skills and grammar will follow a typical continuum that expands from the ability to speak clearly, to the increased capacity to communicate in sentences, to the use of both concrete and abstract language (Kentucky Early Childhood Standards, 2013). Children in this age group experience a tremendous growth of skills as they progress from using only a few words and sounds to being clearly understood by most individuals (Teaching Strategies Gold, 2017). The use of complex sentences is seen at around the age of 3 or 4 as Howard et al. (2014) explained, "By 3 or 4, many children are using compound and complex sentences by adding elements to the beginning or end of kernel sentences" (p. 121). Children begin this process at around the age of 3 through the use of three-six word sentences and by the age of five, most preschool and kindergarten students are able to proficiently use complex, grammatically correct sentences (Teaching Strategies Gold, 2017). Justice (2010) also commented on the increased use of abstract language for children between the ages of 3 and 5, "This ability develops during the preschool years as children learn to use grammar and vocabulary in a highly precise manner" (p. 67).

"English/Language Arts Standard 2—Demonstrates general skills and strategies of the listening and observing process

Benchmark 2.1—Engages in active listening in a variety of situations" (Kentucky Early Childhood Standards, 2013, p. 82).

Developmental Continuum: The Kentucky Early Childhood Standards (2013) has acknowledged the stages of listening and observation skills that children between the ages of 3 to 5 progress

through that ascend from attending and engaging to an instructing adult, to following directions, to acquiring information through listening, to interpreting and analyzing data through the listening process. As children develop increased listening skills, they advance from following simple directions accompanied by gestures to being able to follow detailed instructions with multiple steps. The ability to attend and engage, also a cognitive skill, enhances at the preschool level and by the time children are 5 years old, they have the ability to sustain their attention on an activity despite distractions that may be present in the classroom. Preschool children often increase their listening skills as they use curiosity and motivation to fuel their desire to learn (Teaching Strategies Gold, 2013). Charlesworth (2008) made the connection between children's curiosity level (as it relates to language development) and the role of the adult,

> Natural curiosity extends children's knowledge as they develop more mature question-asking skills. These thinking skills support the young child's curiosity and problem-solving activities. If placed in an environment with peers who are explorers, children's exploratory behavior is increased. The presence of a supportive adult also helps bring out the natural inquisitiveness of young children. (p. 470)

"*Benchmark 2.2*—Observes to gain information and understanding" (Kentucky Early Childhood Standards, 2013, p. 83).

Developmental Continuum: Preschool children develop observation skills through a predictable continuum that goes from the ability to use multiple senses for environmental exploration, to making simple comparisons, to drawing conclusions from their learning experiences (Kentucky Early Childhood Standards, 2013). Three year-olds are capable of investigating and exploring objects and materials in order to produce a desired result or action. They are able to use creative

thinking to solve problems, create art and/or building structures, and compare or classify objects. Three year-old children will often observe others as they attempt to solve problems for clues on how to handle issues of their own (Teaching Strategies Gold, 2017). Copple et al. (2009) commented on the ability of preschool children to problem solve, explaining that, "Young children have age-related limits in their cognitive capacities, but they also have enormous capacities to learn and often underestimated capacities to think, reason, remember, and problem solve" (p. 138). As children learn and grow, they build upon their observational skills and by the age of five, most children are able to think critically (and sometimes abstractly) to solve problems, cultivate ideas, and remember important information (Teaching Strategies Gold, 2017). Copple et al. (2009) pointed out the adult's role in the listening and observing process, "Teachers can focus children's attention by asking questions that encourage children to observe carefully, make comparisons, or review their past experiences" (p. 148).

Typical Literacy Development

Literacy development from ages birth-three

Standards and benchmarks contained in the Kentucky Early Childhood Standards (2013) combine the developmental norms of literacy and language into one section (Communication—ages birth-3, and English/Language Arts—ages 3-5) as they are closely linked. The Kentucky Early Childhood Standards (2013) explained,

> Young children's development is strongly interconnected, with positive outcomes in one area relying on development in other domains. Therefore, early learning standards must address a wide range of domains—including cognitive, social, emotional, physical, and language development, motivation and approaches to learning, as well as discipline-

> specific domains including the arts, literacy, mathematics, science, and social studies. (p. 169)

In fact, Heroman et al. (2010) stressed the links between literacy and language maintaining that, "Oral language is the foundation of literacy" (p. 538). The following standards, benchmarks, and developmental continuums have been identified by the Kentucky Early Childhood Standards (2013) as typical for literacy development in children between the ages of birth-3:

"Communication Standard 3—Demonstrates interest and engages in early literacy activities

Benchmark 3.1—Demonstrates interest and engagement in print literacy materials" (p. 45).

Developmental Continuum: Infants and toddlers develop early literacy skills through printed materials as they follow a typical continuum that advances from gazing at pictures, to demonstrating interest in infant/toddler books, to showing preference for certain books. Children between the ages of birth-3 also begin to develop early writing skills as they progress from using various writing tools to produce scribbling to the ability to draw lines and shapes upon request (Kentucky Early Childhood Standards, 2013). Babies from birth-six months of age enjoy gazing at colorful books and being read to (Charlesworth, 2008). Additionally, Charlesworth (2008) explained how infants explore books in a variety of ways,

> Babies grab the books and chew and suck on them. Soft cloth and vinyl books can survive bring put in the baby's mouth and can be washed. Between 7 and 9 months, most babies can sit on their own, hold a book in their lap, and turn the pages as they examine the pictures. (p. 264)

Bennett-Armistead, Duke, & Moses (2005) examined how infants and toddlers gained knowledge of literacy and print concepts, "Many young children, even in their infancy, begin to learn about how we read. For example, they learn that we read from left to right and top to bottom; we read words as opposed to making a story up" (p. 16). Children between the ages of birth to three show interest in print concepts, often bringing books to familiar adults and caregivers to read. Additionally, the writing progression from birth-three is described as beginning with scribbles (ages 1-2) and evolving to controlled linear markings (ages 1-3). Some children by the age of 3 will even possess the ability to create mock letters or letter strings in their efforts to convey meaning through writing (Teaching Strategies Gold, 2017).

"Benchmark 3.2—Demonstrates interest and engagement in stories, songs, and rhymes" (Kentucky Early Childhood Standards, 2013, p. 48).

Developmental Continuum: Children between the ages of birth-three develop interest in stories, songs, and rhymes beginning with early infancy as they show preference to the human voice. Infants and toddlers then follow a continuum that progresses from their ability to respond to stories, rhymes, and songs, to being able to participate, join in, and even create songs and rhymes (Kentucky Early Childhood Standards, 2013). Infants and toddlers are considered "literacy beginners" as their literacy development is very much in correlation with their language development (Charlesworth, 2008). Even at birth, babies prefer the human voice and enjoy listening to language (Copple et al., 2009). Additionally, rich and engaging language can be derived from the reading of books to infants as Fox (2001) proposed, "Much to the surprise of most adults, babies love books. They respond to the brightness of the pictures, to the rhythm of the words, and to the presence of a loving adult" (p. 31). Lawhon et al. (2002) also added, "Looking at pictures, hearing stories, and being read to encourage the desire to read" (p. 116).

Another skill that begins to develop between the ages of 1-2 is the ability to make entry-level connections with rhyming words (Teaching Strategies Gold, 2017). Heroman et al. (2010) added, "Rhyming is one of the first skills to develop in phonological awareness" (p. 546). Children begin to have a foundation with rhyming as they participate in songs and games associated with rhymes (Teaching Strategies Gold, 2017). Fox (2001) elaborated upon the concepts that very young children can gain from participating in rhyming activities and songs, "From songs, children learn words, sentences, rhythm, rhyme, and repetition, all of which they'll find later in the books they read" (p. 85). Two and three year-old children may also have the capacity to produce a list of random rhyming words or fill in a missing rhyming word when presented with a phrase or song (Teaching Strategies Gold, 2017).

Literacy development from ages three-five

The Kentucky Department of Education (2013) has identified the following standards, benchmarks, and developmental continuums congruent with typical literacy (English/Language Arts) development for children between the ages of three and five:

"English/Language Arts Standard 3—Demonstrates general skills and strategies of the reading process

Benchmark 3.1—Listens to and/or responds to reading materials with interest and enjoyment" (Kentucky Early Childhood Standards, 2013, p. 84).

Developmental Continuum: Children between the ages of three and five respond to literature with increasing interest by following a progression that proceeds from active participation during read-alouds, to showing preferences in story-related activities, to displaying enjoyment as it relates to literature (Kentucky Early Childhood Standards, 2013). Copple et al. (2009) added, "A

fundamental goal is making literacy experiences meaningful, interesting, and satisfying for children" (p. 147). Children as young as two or three display interest in literature as they can often recognize and recite literary repetitions as they occur in books (Teaching Strategies Gold, 2017). The ability of children to do this comes from being read to on a regular basis to help children develop a familiarity with literature and a love for reading as Fox (2001) explained, "Children who are read to early and regularly quickly acquire the skill of listening and the desire to hear stories. They understand the immense pleasures waiting for them in books and develop the ability to concentrate and relax" (p. 33). Additionally, Heroman et al. (2010) pointed out that, "Familiarity that comes with repeated readings enables children to reenact stories or attempt to read them on their own" (p. 561). Bennett-Armistead et al. (2005) also noted that, "Providing opportunities to engage with books on a regular basis can increase children's motivation and desire to read throughout their lives. Children who have early experiences with print tend to read earlier and enjoy reading more" (p. 123). As children expand their interests in literature throughout the preschool years, they begin to not only ask meaningful questions relating to stories, but they also begin to apply information learned from stories to everyday life and experiences (Teaching Strategies Gold, 2017).

"Benchmark 3.2—Shows interest and understanding of the basic concepts and conventions of print" (Kentucky Early Childhood Standards, 2013, p. 85).

Developmental Continuum: Preschool children between the ages of 3 and 5 develop print concepts by continuing on a path that goes from correctly handling a book, to understanding direction in print, to comprehension of print meaning (Kentucky Early Childhood Standards, 2013). Heroman et al. (2010) stressed the importance of print concept development in preschool students, "Young children's concepts about print are a moderate predictor of later reading,

writing, and spelling ability" (p. 551). Justice (2010) also described print awareness as a fundamental milestone achieved in preschool as children begin to learn the "form and functions of written language" (p. 70). In addition, we can see further links between literacy and language as children's knowledge of print concepts has been found to be closely related to language development (Heroman, 2010). By the age of three, most children understand that print has meaning and can be read. Children between the ages of 4 and 5 vary in their abilities to understand print directionality, identify punctuation and spaces between words, and their attempts to read by appropriately following the text (Teaching Strategies Gold, 2017).

In addition to developing print concepts, young preschool students will often utilize and appreciate books, as three year olds typically have the ability to hold a book with the correct orientation and distinguish certain books by their covers. Four and five year-olds will often know certain other attributes of a book including the author, illustrator, spine, or cover and will frequently use books to connect to real-life experiences (Teaching Strategies Gold, 2017).

"Benchmark 3.3—Demonstrates knowledge of the alphabet" (Kentucky Early Childhood Standards, 2013, p. 86).

Developmental Continuum: Children between the ages of 3 and 5 gain alphabetic knowledge by following a developmental continuum that progresses from being able to recognize certain letters, to identifying some letters within print, to recognizing some letters in both "familiar and unfamiliar words" (Kentucky Early Childhood Standards, 2013, p. 86). Bennett-Armistead et al. (2005) described the preschool years as a time when children "know that alphabet letters are a special category of visual graphics that can be individually named" (p. 20). Three year-olds recognize letters beginning with those in their own names. As children approach the age of 5,

most of them can already identify the entire alphabet of capital and lowercase letters, even when presented out of order (Teaching Strategies Gold, 2017).

"Benchmark 3.4—Demonstrates emergent phonemic/phonological awareness" (Kentucky Early Childhood Standards, 2013, p. 87).

Developmental Continuum: Justice (2010) described preschool phonological awareness as the ability to "hear and produce rhymes, segment sentences into words and words into syllables, and detect beginning sound similarities across words" (p. 70). The continuum for preschool phonemic/phonological awareness development includes progressing from rhyming recognition, to understanding of syllables, to letter/sound knowledge, to recognizing alliteration (Kentucky Early Childhood Standards, 2013). Fox (2001) clarified the importance of rhyming in preschool,

> Rhymers will be readers: it's that simple. Experts in literacy and child development have discovered that if children know eight nursery rhymes by heart by the time they're four years old, they're usually among the best readers by the time they are eight. (p. 85)

Preschool students can usually determine whether a pair of words rhyme and eventually develop the ability to create lists of rhyming words when given a specified word (Teaching Strategies Gold, 2017).

Alliteration is also an important facet of phonological awareness as Heroman et al. (2010) explained, "Alliteration requires children to pay attention to parts of words that are smaller than a syllable" (p. 546). Children typically develop alliteration skills from the ability to participate in songs with repeating similar beginning sounds, to understanding that certain words begin with the same sounds, to eventually being able to recognize the beginning sounds of a variety of words (Teaching Strategies Gold, 2017). Copple et al. (2009) stressed the role of the adult in

developing alliteration and phonological awareness, "When teachers read aloud books that play with language and rhymes and include consistent language patterns such as alliteration and rhyme, children enjoy them greatly and gain in phonological awareness" (p. 147).

Understanding syllables is also a part of phonological awareness (Justice, 2010). Heroman et al. (2010) described the development of syllable awareness in preschool students as it occurs after the development of beginning and ending sounds, "In preschool, children can clap the words of a sentence or tap rhythm sticks to mark the syllables in their names" (p. 543). Teaching Strategies Gold (2017) described syllable awareness as a stepping stone between acknowledging the sounds of separate words within a sentence and combining or separating small units of sound to make a word.

"*Benchmark 3.5*-- Draws meaning from pictures, print, and text" (Kentucky Early Childhood Standards, 2013, p. 89)

Developmental Continuum: Children between the ages of 3 and 5 develop the ability to draw meaning from literature by following a pathway that goes from the ability to identify certain aspects of an illustration or photograph, to using those illustrations/photographs to relay major occurrences in a story, to understanding that written words have purpose (Kentucky Early Childhood Standards, 2013). Children as young as 2 and 3 years old will often utilize books and pretend to read, using the pictures for clues. As they progress, however, their attempts to read will begin to more closely correspond with the text, especially when adults provide assistance or scaffolding (Teaching Strategies Gold, 2017). Heroman (2010) clarified, "When adults supported children's learning in a print-rich environment, children were found to learn significantly more words in context than their peers who experienced a print-enriched

environment without adult interactions" (p. 551). Copple et al. (2009) also added, "Reading aloud to children and enhancing this experience by reading expressively and actively engaging children is vital in fostering their enjoyment of books and interest in becoming readers" (p. 147). Eventually, children begin follow along with the text from left to right and attempt to sound out words, showing full awareness that printed words have meaning (Teaching Strategies Gold, 2017).

"Benchmark 3.6—Tells and retells a story" (Kentucky Early Childhood Standards, 2013, p. 90)

Developmental Continuum: Links between literacy and language are clearly evident when children participate in retelling stories as Heroman (2010) explained, "Story retelling helps children develop a sense of story structure and understanding about language that contributes to their comprehension of text" (p. 561). Children's ability to retell stories follow incremental steps that progress from pretending to read during play activities, to dramatizing the main ideas of a story, to connecting life experiences to stories in order understand them, to being able to relay important details, problems, and solutions in a story (Kentucky Early Childhood Standards, 2013). Preschool students begin retelling stories, first with assistance from an adult, and then with props, pictures, or other supplements. By the time children reach the age of 5, most of them are able to retell a story with significant accuracy and make connections that can be applied to real-life experiences (Teaching Strategies Gold, 2017).

"English/Language Arts Standard 4—Demonstrates competence in the beginning skills and strategies of the writing process

Benchmark 4.1—Understands that the purpose of writing is communication" (Kentucky Early Childhood Standards, 2013, p. 92).

Developmental Continuum: Preschoolers comprehend the purpose of writing through a developmental continuum that advances from understanding that spoken language can be transferred to written language, to knowing that certain written messages have meaning, to understanding that print has the same meaning every time it is written (Kentucky Early Childhood Standards, 2013). In order for children to understand that written language has meaning, they must first comprehend the alphabetic principle as Copple et al. (2009) explained,

> At the most fundamental level, the ability to read and write depends on mastering the alphabetic principle—that there is a systematic relationship between letters and sounds, and that all spoken sounds and words can be represented by a limited set of symbols called letters. (p. 147)

Additionally, Justice (2010) described the understanding of print concepts as developmental milestones that include the steps of "print interest, print functions, print conventions, print forms, and print part-to-whole relationships" (p. 71). Adults can enhance children's knowledge of print awareness and the purpose of writing by exposing them to environmental print as Copple et al. (2009) explained, "In acquainting children with written language, teacher should introduce them to concepts and skills such as understanding that print performs a variety of functions, recognizing print in the environment, and distinguishing separate words" (p. 147). Charlesworth (2008) also noted that children are "very much aware of environmental print" and often identify with accuracy familiar labels, logos and businesses they are acquainted with. (p. 443).

"Benchmark 4.2—Produces marks, pictures, and symbols that represent print and ideas" (Kentucky Early Childhood Standards, 2013, p. 93).

Developmental Continuum: For young children between the ages of 3 and 5, the writing process follows a developmental continuum that consists of scribble writing, mock-lettering, creating text with scribbles or mock-lettering for representation, and writing correctly-formed letters and words (Kentucky Early Childhood Standards, 2013). Bennett-Armistead et al. (2005) elaborated on the unique characteristics of the early writing process for preschoolers,

> That drawing and writing are both ways of representing is just one of the many similarities between them, and it may be helpful to keep in mind that at the heart of each act is the intention to communicate an idea. Just as illustrators and writers both contribute to our comprehension of text, children communicate with us through drawing and writing. (p. 143)

Most children have progressed from random scribbling to scribbles that are controlled and linear in nature by the time they are three (Teaching Strategies Gold, 2017). As children advance through the stages of writing there is no need to correct their attempts to create text, as Bennett-Armistead et al. (2005) clarified, "Correcting every error may discourage early writers from fully exploring this new way of conveying meaning. When you allow developmentally appropriate errors, children become eager to write" (p. 147). Copple et al. (2009) also added, "In preschool, children's proper written formation of letters should not be a priority; such an emphasis would be likely to make early writing less meaningful and more frustrating to young children" (p. 148). As an alternative, Bodrova et al. (1998) suggested the use of "Scaffolded Writing", a technique based on Vygotsky's theory of ZPD, to facilitate and enhance children's print awareness and written language skills. Bodrova et al. (1998) explained, "Scaffolded Writing facilitates the transition to independent writing. It supports the child's message production, thus preserving the critical link between meaning and writing" (p. 15). By the time they reach the age of 5, many

children are able to independently sound out and write words with partial or complete accuracy (Teaching Strategies Gold, 2017).

"Benchmark 4.3—Explores the physical aspect of writing" (Kentucky Early Childhood Standards, 2013, p. 96).

Developmental Continuum: Preschool children follow a developmental continuum for understanding the physical aspects of writing by advancing from using a variety of writing tools, to exploring different grasp techniques, to adjusting the body and paper position during writing activities, to displaying knowledge of directionality when writing (Kentucky Early Childhood Standards, 2013). Preschool-aged children are still developing the specific fine motor skills necessary for proficient writing as Copple et al. (2009) explained, "Writing, drawing, and cutting with precision are activities that can be difficult for many preschoolers, who are still developing comfort and agility with fine motor work" (p. 116). In fact, children do not show preference for the left or right hand when writing until approximately the age of 4 (Copple et al., 2009). Bennett-Armistead et al. (2005) suggested supplying children with a variety of writing tools for fine motor and writing development including pencils (colored and lead), crayons, markers, pens, and even rubber stamps, ink pads, tape, and plenty of paper. When observing children's writing skills, one will notice that most 3 year-old children will hold writing tools using a whole-hand grasp. As children grow and receive regular exposure to writing materials, they develop the ability to properly grip writing tools, using a three-point grasp and sufficient placement of the hands (Teaching Strategies Gold, 2017). Eventually, preschool children combine the learned concepts of reading and writing and begin the process of name writing as Charlesworth (2008) explained, "Children gradually develop the concepts that writing is linear and continuous and begin writing their own names. Names are very personal, and writing one's own name is a

highly motivating objective" (p. 445). Lawhon et al. (2002) again emphasized the role of the adult in facilitating the reading and writing process in stating that, "Adults teach children important concepts about print, including left to right and top to bottom directionality" (p. 114).

Links Between Literacy and Language

Vocabulary

Vocabulary is defined as "the words students (children) must know to communicate effectively" (Charlesworth, 2008, p. 442). Heroman et al. (2010) pointed out the link between literacy and language as it relates to vocabulary in stating, "Vocabulary is the strongest predictor of later reading and literacy ability" (p. 540). Copple et al. (2009) agreed in stating, "In the language and literacy domain, vocabulary knowledge and other aspects of oral language are particularly important predictors of children's reading comprehension" (p. 7). As we have already discussed, vocabulary develops in steady increments that advance from reflexive sounds, to cooing and babbling, to the use of jargon, to the ability to speak meaningful words (Justice, 2010). At around the age of 18 months, toddlers experience what is known as a vocabulary spurt, in which they progress from having an approximate 50-word vocabulary to an amazing 300-word vocabulary by the time they are 2 years old (Howard et al., 2014). Justice (2010) described the vocabulary spurt as a period in which "children learn an average of 7 to 9 new words per day" (p. 59). The growth doesn't stop there, as children typically increase their vocabulary skills to an approximate 1,000 words by the age of 3, 1,500 words by the age of 4, and 2, 000 words by the age of 5, although this growth is significantly influenced by the child's experiences (Howard et al., 2014). Heroman et al. (2010) explained, "When children are engaged in tasks in which they are learning vocabulary, they have larger vocabulary gains.

Exposing children to new words often and in various ways can have a significant effect" (p. 540). Wetzel (2011), in a study presented by Vanderbilt University, also found that, "Preschool teachers' use of sophisticated vocabulary and analytic talk about books, combined with early support for literacy in the home, can predict fourth-grade reading comprehension and word recognition" (para. 1). Once more, we see the value of the adult's role in children's acquisition of proficient literacy and language skills as Copple et al. (2009) also elaborated, "If well supported by adults, vocabulary, language, and an interest in print materials develop rapidly during the preschool years" (p. 144).

Written Language

Closely correlated with vocabulary development is written language, as Heroman (2010) clarified, "Written language—both reading and writing—requires a well-developed vocabulary and a good understanding of the rules and structure of language" (p. 538). The process of developing written language skills begins in the earliest stages of life through the support of quality interactions with adults and higher-level peers as Zero to Three (2003) explained,

> Recent research supports an interactive and experiential process of learning spoken and written language skills that begins in early infancy. We now know that children gain significant knowledge of language, reading, and writing long before they enter school. Children learn to talk, read, and write through such social literacy experiences as adults or older children interacting with them use books and other literacy materials. (para. 2)

Like spoken language, written language follows a developmental continuum that progresses from scribbling, to scribbles that are controlled and linear, to mock letter formations, to random letter writing, to early and late invented spelling (Teaching Strategies Gold, 2017). As children are

advancing through the stages of written language, they become increasingly aware that spoken words can be converted to written words and that written words are made up of letters—a concept known as the alphabetic principle (Copple et al., 2009). Proficient understanding of the alphabetic principle consists of more than simply knowing the ABCs according to Heroman et al. (2010), "Knowledge of letters and words is an important component of literacy, and it involves more than reciting the ABC song or recognizing individual letters. Readers must understand that a letter represents one or more sounds" (p. 554). Fox (2001) agreed in stating, "We need to remember that although they know the ABC song, many young children can't identify single letters when they see them in *print*" (p. 64). As children begin to produce letter formations in writing, they will often begin with using one letter to represent an entire word and progress to the inclusion of other letter sounds in words until their spelling increases in accuracy (Heroman et al, 2010). This process, known as invented spelling, occurs in five stages that can be described as *pre-communicative* (formation of letters), *semi-phonetic* (reliance on letter names for sound representation), *phonetic* (attempts to use vowel sounds within syllables), *transitional* (increased letter/sound knowledge and attempts to use two letters to represent one sound), and *correct stage* (conventional spelling) (Bennett-Armistead et al., 2005). Bennett-Armistead et al. (2005) further described invented spelling in early childhood as a process in which "children test out different ways words might be spelled" and noted the importance of allowing preschool students to "explore, try out, and play around with spellings in their own writing and in others' writing" (p. 145). According to Bodrova et al. (1998), most children do not reach the stage of correct or conventional spelling until the age of five or older. Until that time, it is important for teachers and caregivers to encourage developmentally appropriate writing in early childhood to promote later meaningful written expression and proficient reading skills (Copple et al., 2009).

Comprehension

According to Heroman et al. (2010), another observable link between literacy and language is comprehension. "Comprehension skills begin to develop long before children learn to decode print. It begins with building knowledge about the world and about language in order to understand and communicate" (p. 559). Charlesworth (2008) defined comprehension as "the ability to understand and gain meaning from what has been said or read" (p. 442). Furthermore, comprehension can be described as the fourth part of the communication process which includes *formulation* and *transmission* (expressive language) and *reception* and *comprehension* (receptive language). In a typical communication exchange, the sender will formulate a message and then transmit it to another person, who will then receive the message and interpret or comprehend it. Communicative messages may differ according to what modality is used and can vary from speech, to sign language, to gestures and pictures, to facial expressions, to reading and writing (Justice, 2010). Heroman et al. (2010) highlighted the importance of providing meaningful educational experiences for the building of comprehension skills in young children as it relates to both literacy and language, "Comprehension, the process of making meaning, is the goal of reading instruction. It involves connecting what you read and hear with your experience. Your background knowledge helps you understand the meaning of language" (p. 559). Bennett-Armistead et al. (2005) also added, "When we ask children to make connections between their own lives and a book, we teach them one of the most important habits of a good reader" (p. 80). Justice (2010) described the oral language skills of grammar, vocabulary, and narrative to be essential in the development of reading comprehension. Bennett-Armistead et al. (2005) suggested that these skills could be enhanced through purposeful and "interactive read-alouds, sustained conversations, and deliberate teaching" (p. 81). Additionally, throughout the

interactive reading of a variety of literature, teachers and caregivers can boost comprehension skills through asking questions that request facts from the story, help children draw inferences, make predictions, and connect the story to their experiences (Bennett-Armistead et al., 2005). Heroman et al. (2010) elaborated,

> When preschoolers attempt to make connections between stories they hear, conversations, and personal experiences, they use many of the same cognitive processes that older children and adults use when they read. Some researchers argue that this ability to make connections to text strongly predicts future reading comprehension, even more than other basic literacy skills. (p. 559)

Heroman et al. (2010) also pointed out the benefits of small-group and individualized reading, retelling and re-reading stories, and quality dramatic play experiences to the enhancement of comprehension skills.

Phonological Awareness

Bennett-Armistead et al. (2005) defined phonological awareness as "the ability to hear differences and similarities in the sounds of words and parts of words" (p. 36). Researchers agree that phonological awareness plays a key role in the development of future reading proficiency as Heroman et al. (2010) explained, "Phonological awareness plays a crucial role in learning to read. Development of this ability typically begins by about the age of 3 and improves gradually over many years" (p. 546). Copple et al. (2009) described phonological awareness as a "strong predictor of reading success" (p. 147). Additionally, Roth et al. (2006) asserted, "One spoken language skill that is strongly connected to early reading and writing is phonological awareness—the recognition that words are made up of separate speech sounds" (para. 4).

Furthermore, Justice (2010) depicted print and phonological awareness as the "two most important achievements in emergent literacy for preschoolers" (p. 70).

Teaching Strategies Gold (2017) described the acquisition of skills related to phonological awareness as the ability to discriminate rhyme, alliteration, and decreasingly smaller units of sound (syllables and phonemes). Rhyming, perhaps the initial phonological awareness skill to emerge, is closely related to later reading abilities (Heroman et al., 2010). In fact, the capacity to rhyme eventually allows children to make the connections that will assist them in spelling and "using known words to decode new words" (Bennett-Armistead et al., 2005, p. 92). Similarly, children who master the skill of rhyming find the skill of reading much easier to attain as Fox (2001) explained,

> Kids who can't recognize the fact that two words such as *bed* and *Fred* rhyme—and there are many such kids—have a hard time learning to read, whereas those who can rhyme are able to make more inspired and more correct guesses about what a particular word might be when they are reading. (p. 85)

The ability to display skills in alliteration occurs through incremental stages that progress from repeating songs and rhymes that feature similar beginning sounds, to noticing and matching the beginning sounds of certain words, to identifying the initial sound of specific words (Teaching Strategies Gold, 2017). Heroman et al. (2010) clarified, "Alliteration requires children to pay attention to parts of words that are smaller than a syllable" (p. 546). As children develop increasingly advanced alliteration skills, they gain letter/sound knowledge and build upon that knowledge to learn spelling proficiency (Bennett-Armistead et al., 2005).

Determining decreasingly smaller units of sound is a skill that develops from the early ability to hear separate words in sentences, to eventually being able to distinguish phonemes that occur in words (Teaching Strategies Gold, 2017). This includes the ability to hear and notice syllables as well as onset (the syllable before the first vowel that consists of a consonant) and rime (the remainder of the syllable) (Heroman, 2010). Decoding larger and smaller units of sound is also a prerequisite to future reading and writing success (Bennett-Armistead, 2005).

Copple et al. (2009) indicated the importance of the adult role in facilitating phonological awareness in stating, "Most children do not automatically acquire phonemic awareness, but they gain this awareness when preschool teachers purposefully support it and provide the degree of assistance needed by each child" (p. 147). Heroman et al. (2010) agreed in affirming, "Few children acquire phonemic awareness spontaneously" (p. 547). Furthermore, academic success as it relates to literacy can be attributed to interventions in phonological awareness as Bennett-Armistead et al. (2005) explained, "Children who enter school with strong phonological awareness become better readers later on and instruction in phonological awareness has been shown to help later reading skills" (p. 91).

Content, Form, and Use

In order for language to make sense, be functional, and have organization, it must be made up of three realms that can be described as content, form, and use (Justice, 2010). *Content*, or the "meaning of language", involves not only the words we choose to speak and write, but the meanings behind those words (Justice, 2010, p. 13). *Form* is described by Justice (2010) as "how words, sentences, and sounds are organized and arranged to convey content" (p. 13). *Use*

refers to language being used for the functional purpose of social interactions and meeting one's personal wants and needs (Justice, 2010).

To further detail the system of content, form, and use, a five-part domain can be used that consists of semantics (content), syntax (form), morphology (form), phonology (form), and pragmatics (use). The first domain, *semantics*, describes content and involves the meanings of words and how they are combined to create sentences (Justice, 2010). Justice (2010) provided an example, "We know that a *culprit* is someone who has done something wrong and that *green* and *blue* go together meaningfully. Our knowledge of semantics tells us that something is wrong with the sentence *Colorless green ideas sleep furiously*" (p. 13). Charlesworth (2008) elaborated on the meaning of semantics, "It (semantics) refers to words used in the correct context and attached to the appropriate referent. As children enter the elementary years, they begin to understand some of the more subtle meanings" (p. 409).

Syntax, related to form, refers to the way we organize sentences and phrases to communicate (Charlesworth, 2008). Justice (2010) provided an example of syntax in stating, "The sentence, *Colorless green ideas sleep furiously*, abides by conventional rules of syntax; its word order is acceptable despite its lack of meaning" (p. 13-14). As children are developing language skills, they begin with creating their own rules for syntax when communicating (ex. 2-word phrases) before using the correct or conventional forms of sentence structure (Charlesworth, 2008).

Morphology, also related to form, refers to the way words are organized in language (Justice, 2010). Charlesworth (2008) described morphology as "the use of morphemes, the

smallest meaningful units of speech" (p. 409). More specifically, Justice (2010) gave an example of morphology with the following,

> Words can be morphed (manipulated) to change their meanings; for instance, *-ed* can be added to *walk* to show that this activity happened in the past (*walked*), or *–er* can be added to turn the verb *walk* into a noun to describe a person who is walking (*walker*). (p. 14)

Phonology, again related to form, breaks down the structure of language even smaller to refer to the sounds and syllables that make up words (Justice, 2010). The sounds, referred to as phonemes, are the "smallest units of language" (Charlesworth, 2008, p. 408). Heroman et al. (2010) described the process in which young children develop awareness of phonemes, "As children's phonological awareness skills advance, they learn to manipulate phonemes in many different ways. They blend and segment phonemes, or substitute one phoneme for another" (p. 543). Bennett-Armistead et al. (2005) noted the importance of phonology in the process of learning to read, "Children's ability to hear and process the sounds in words is critical to their later success at figuring out unfamiliar words" (p. 105). According to Justice (2010), the English language consists of approximately 40 phonemes (15 vowel and 25 consonant sounds) that in turn produce over 100,000 words.

Pragmatics, related to the use of language, refers to "the rules of language governing how language is used for social purposes" (Justice, 2010, p. 15). Charlesworth (2008) also described the term "pragmatic" as "the degree to which language is used appropriately and to the best advantage in a particular situation" (p. 409). It is important for students to not only learn the proper forms and contexts of language use, but also the appropriate functions as Justice (2010)

explained, "People who possess competence in pragmatics take their conversational partner's attitudes, values, and beliefs into account and recognize that they can use language for a variety of purposes" (p. 46). The linguistic rules of pragmatics also include "word choice, turn taking, posture, gestures, eye contact, proximity, pitch, loudness, and pausing" (Justice, 2010, p. 15).

Fluency

As it relates to speech and language, fluency is defined as "a descriptive term used to characterize the flow of speech during communication" (Justice, 2010, p. 319). Justice (2010) clarified, "Speech is most functional when it is produced effortlessly and smoothly with few hesitations, interjections, and circumlocutions. Speech is fluent when all the elements of a good delivery come together" (p. 19). Disfluency is described as the "speech behavior that disrupts the fluent forward flow of speech, such as pauses, interjections, and revisions" (Justice, 2010, p. 319). The American Speech-Language-Hearing Association (2017) described the disfluency pattern of stuttering, "Stuttering affects the fluency of speech. It begins during childhood, and in some cases, lasts throughout life. The disorder is characterized by disruptions in the production of speech sounds, also called disfluencies" (para. 1). Stuttering can have characteristics of *repetition* (frequent and atypical repeating of sounds, syllables or words), *prolongation* (holding a sound longer than necessary), and/or a *block* (abrupt halt of a sound attempt) (Justice, 2010). The American Speech-Language-Hearing Association (2017) explained the treatment process involved with children (and even adults) learning to overcome disfluency, "When learning to control speech rate, people often begin by practicing smooth, fluent speech at rates that are much slower than typical speech, using short phrases and sentences" (para. 13). With the additional use of breathing exercises, rate monitoring, and follow-up sessions, many people are eventually

able to improve and/or achieve fluent speech abilities (American Speech-Language-Hearing Association, 2017).

As it relates to literacy, fluency can be described as "the capacity to read text accurately and quickly" (Charlesworth, 2008, p. 442). Justice (2010) commented on the enhancement of reading fluency for beginning readers, "Approaches to building reading fluency are based on the premise that the practice of engaging in a skill is what will build that skill; consequently, to increase reading fluency, a child must practice reading aloud to connected text" (p. 278). Ideally, practiced exposure to literacy begins long before children gain the ability to read as Heroman et al. (2010) explained, "Children are more likely to be fluent readers and enjoy reading more if parents have fun reading to them and if they show children that books are a source of enjoyment" (p. 536). Bennett-Armistead et al. (2005) also agreed in stating, "Research tells us that book reading between adults and children is important to children's emergent literacy and later literacy achievement" (p. 138). Additionally, Smagorinsky (2013) wrote about the benefits of group literary performance in the form of "shared reading, choral reading, and reader's theater" for the advancement of fluency skills (p. 200).

Auditory Discrimination

Auditory discrimination has close connections with language development as Westling, Fox, & Carter (2015) explained, "The auditory system uses receptors housed in the ear to process sound, which is used by an individual to map the environment and to communicate with people in the environment" (p. 287). Justice (2010) described some of the difficulties and struggles that children with auditory impairments may face as it relates to language, "Early in life, children who are learning spoken language may have limited world language experience if they are not

immersed in the language of their parents" (p. 437). Additionally, when hearing loss is not detected early, or when early intervention is not provided, children will most likely experience delays in both expressive and receptive language development (Justice, 2010).

Similarly, auditory discrimination is associated with literacy development, specifically as it relates to phonological awareness (Heroman et al., 2010). Justice (2010) explained,

> Phonology is often impacted when a child exhibits moderate to more severe hearing loss. If a child cannot adequately hear the sounds of speech, the natural development of accurate production of those sounds does not occur, affecting both vowels and consonants. (p. 434)

According to Westling et al. (2015), even a mild hearing loss can cause difficulties in the ability to hear "soft speech, distant sounds, and unvoiced consonants", thus making phonological awareness all the more challenging (p. 296). Nevertheless, it is essential for students with auditory impairments to gain needed literacy skills as it gives them "an alternate avenue to improve language, vocabulary, spelling, and many other important academic skills" (Justice, 2010, p. 437). To address the issue, teachers can encourage older children with hearing loss to "buddy read" to a younger student; read "re-worded" age-appropriate books to reduce language frustration; and encourage children to participate in dramatic play or Reader's Theatre (Justice, 2010). Younger children should also be immersed in sign language systems, residual hearing, lip reading, and even oral speech as early as possible to promote effective literacy and language development (Howard et al., 2014).

Memory

According to Dawson & Guare (2010), *memory*, or working memory is defined as "the ability to hold information in mind while performing complex tasks. It incorporates the ability to draw on past learning or experience to apply to the situation at hand or to project into the future" (p. 1). Memory, which begins to develop in infancy, is correlated with language development and begins with non-verbal working memory and progresses to internalization of speech, or verbal working memory (Dawson et al., 2010). Language is more involved as children develop the executive skill of internalization of speech as Dawson et al. (2010) explained, "Acquisition of language provides the child with a powerful tool for control of the environment. People, objects, and actions and the images of these that the child has formed in nonverbal working memory can now be represented with words" (p. 7).

Charlesworth (2008) described memory as having four distinct characteristics that include "recall, recognition, paired associates, and reproductive" (p. 49). When children recall, they incorporate language skills to immediately answer or remember important information such as their own names, ages, or names of family members and friends. Recognition, an easier skill, involves choosing from a list of options. Paired associates consists of matching or categorizing objects according to similar characteristics and reproduction, the most difficult aspect of memory, requires the child to reproduce what is recalled. Here, we can also see literacy being connected to memory as children must use reproductive memory skills to adequately write letters, words, and their own names (Charlesworth, 2008). Also related to literacy is phonological memory as Justice (2010) explained, "Phonological memory is the ability to hold phonologically encoded information, such as words and sentences, in memory. When one wants to hold verbal information in memory, such as a telephone number, one will typically recite it from memory" (p. 255). The processes of phonological retrieval and orthographic processing

also involve memory and the literacy and language skills necessary for phonological awareness, fluency, and decoding print (Justice, 2010). In addition, Dawson et al. (2010) indicated that proficient verbal working memory skills are necessary for both problem solving and reading comprehension.

Intervention Strategies for Enhancing Literacy and Language

Fetal Development

The foundations of literacy and language can never be built upon too soon, as Charlesworth (2008) contended, "We do know that the senses begin to respond during the prenatal period. There is even some evidence that newborn babies respond to stories they have heard while in the womb" (p. 159). Lawhon et al. (2002) supported this idea in saying, "The growth of literacy, including reading, writing, speaking, viewing, and listening, is a life-long process that begins during prenatal development when voices and music are heard and remembered" (p. 113). Additionally, Bennett-Armistead et al. (2005) added, "More recent thinking says that literacy emerges from birth, assuming the child is being raised in a literate world" (p. 15). So how do we provide children at birth and even in the womb with a literate environment? Simply put—reading to children is the best way to foster foundational literacy and language skills as Fox (2001) clarified, "The foundations of learning to read are set down from the moment a child first hears the sounds of people talking, the tunes of songs, and the rhythms and repetitions of rhymes and stories" (p. 15). Fox (2001) goes on to maintain that children who are not read to and interacted with from birth may struggle academically later on. Because of the implications, and because it has been documented that fetuses as young as 5-6 months gestation

respond to sound, it may certainly be worthwhile exposing children to language and literacy while still in the womb (Charlesworth, 2008).

Birth-Three

The following is a check-list of intervention strategies designed for teachers and/or parents that may be used to enhance literacy and language development for children between the ages of birth-three:

Language:

- Respond to any attempts of communication including grunts, points, coos, and babbles (Bennett-Armistead et al., 2005).
- Talk frequently to and sing songs with your child (Heroman et al., 2010).
- Talk to children throughout daily routines such as bathing, changing, feeding, and traveling. Explain the activities as you go, introducing new vocabulary when possible (Bennett-Armistead et al., 2005).
- Pay attention to children's non-verbal cues such as smiling, laughing, and reaching. Make eye-contact and exchange positive non-verbal interactions (Copple et al., 2009).
- Play games that initiate back-and-forth exchanges such as peek-a-boo, pat-a-cake, and rolling a ball back and forth (Copple et al., 2009).
- Join children in play activities they are interested in. Allow the child to lead and facilitate conversation (Justice, 2010).
- Remain in close proximity to infants and toddlers when communicating, allowing them to hear you while modeling facial expressions, lip movements, and eye contact (Bennett-Armistead et al., 2005).

Literacy:

- Read aloud to children as often as possible using expression, vocal variety, eye contact, and animation (Fox, 2001).
- Provide infants and toddlers with books that are colorful, bright, and have plenty of pictures. Offer books that are washable, plastic, or vinyl and those that could be used at bath time (Zero to Three, 2003).
- Create small photo albums that contain pictures of familiar family members or friends for infants and toddlers to explore (Zero to Three, 2003).
- Use one-on-one or small group strategies when reading to infants and toddlers to promote listening skills, focus, language, and imagination (Lawhon et al., 2002).
- Expose infants and toddlers to environmental print often (Lawhon et al., 2002).
- Use rhyming, singing, and finger-plays to help teach phonological awareness skills (Heroman et al., 2010).
- Accept all forms of writing (even scribbling), appreciating the growing process of emergent writing (Bennett-Armistead et al., 2005).
- Supply children with a variety of writing materials to explore including crayons, markers, pencils, pens, and even envelopes, ink pads, rubber stamps, clip boards, and chalk (Bennett-Armistead et al., 2005).
- Allow children to watch you read and write often (Lawhon et al., 2002).

Three-Five

The following is a check-list of intervention strategies designed for teachers and/or parents that may be used to enhance literacy and language development for children between the ages of three and five:

Language:

- Initiate conversations with children about what they are thinking, feeling, or doing (Heroman et al., 2010).
- Create opportunities for singing, rhyming, and conversations that introduce new vocabulary words and their meanings (Heroman et al., 2010).
- Listen to children when they attempt to communicate. Interact with them and show attentiveness through non-verbal cues (Bennett-Armistead et al., 2005).
- Expand on children's conversations, modeling correct language without correcting them (Bennett-Armistead et al., 2005).
- Connect new concepts with actions or concrete objects to encourage language (Charlesworth, 2008).
- Encourage children to talk aloud or use "private speech" while working or problem solving (Charlesworth, 2008).
- Use clear communication when presenting expectations (Manning & Bucher, 2001).
- Ask open-ended questions that solicit a response other than "yes" or "no". Use starter words and phrases such as "How?", "Why?", "What happened?", and "Tell me about…" (Bennett-Armistead et al., 2005).
- Encourage children to talk to one another at appropriate times throughout the day (Bennett-Armistead et al., 2005).
- Promote social problem solving skills through verbal expression (Heroman et al., 2010).
- Provide new and interesting props and materials for children to explore, converse about, and develop new ideas and concepts about (Heroman et al., 2010).

- Encourage dramatic play and role-playing activities that promote discussion and expression (Heroman et al., 2010).

Literacy:

- Read aloud to children as often as possible using expression, vocal variety, eye contact, and animation (Fox, 2001).
- Encourage children to tell and retell stories to help reinforce the concepts of story structure and comprehension (Heroman et al., 2010).
- Draw attention to and talk about print in the environment such as road signs, fast food signs, labels, cereal boxes, popular logos, and other signs and symbols (Lawhon et al., 2002).
- Provide a variety of books for children to read and explore including books that are fiction and non-fiction, multicultural, colorful and bright, board books, rhyming stories, flannel board stories, narratives, and those that teach a concept (alphabet, math, shapes, etc.) (Bennett-Armistead et al., 2005).
- Introduce nursery rhymes to teach rhythm, repetition, and phonological awareness (Fox, 2001).
- Teach children print concepts by demonstrating the correct way to hold a book, pointing to words while reading to teach print directionality, and talking about the parts of a book including the author, illustrator, title page, and spine (Bennett-Armistead et al., 2005).
- Help children make connections between stories and events or experiences in children's own lives (Heroman et al., 2010).
- Start/participate in a book/literacy lending program where children can check out quality books, CDs, and other literacy materials for use at home (Lawhon et al., 2002).

- Create word walls to introduce new vocabulary words (Lawhon et al., 2002).
- Change environmental print periodically to maintain children's interest (Bennett-Armistead et al., 2005).
- Supply children with a variety of writing materials to explore including crayons, markers, pencils, pens, and even envelopes, ink pads, rubber stamps, clip boards, and chalk (Bennett-Armistead et al., 2005).
- Include opportunities and materials for reading and writing (books, finger-plays, flannel boards, clip boards, writing utensils, recipes, etc.) in centers other than the writing center including dramatic play, science, math, technology center, and outdoors (Bennett-Armistead et al., 2005).
- Accept all forms of writing (even scribbling), appreciating the growing process of emergent writing. Encourage children to attempt name writing and picture labeling (Bennett-Armistead et al., 2005).
- Create writing journals for children to encourage written expression (Charlesworth, 2008).
- Create classroom mailboxes for children to create and send "mail" to other classmates. Label them with names and pictures of the children (Bennett-Armistead et al., 2005).
- Allow children to use sensory experiences to explore the alphabet by using sandpaper, magnetic, clay, and felt letters (Heroman et al, 2010).

Special Needs Child

There are a number of developmental disabilities that can profoundly affect language development including cleft lip/palate, Down syndrome, cerebral palsy, and autism (Howard et al., 2014). Children who experience delays in language development often display difficulties in

later reading and writing abilities as well (Roth et al., 2006). Concerning children with special needs who struggle with speech and language impairments, Howard et al. (2014) added, "Children with disabilities who have language delays may require specially structured opportunities to facilitate language development" (p. 129). These specially structured opportunities should include early intervention services as Justice (2010) maintained, "Scientific evidence shows that early intervention is an effective route for reducing the negative outcomes associated with early language difficulties" (p. 211). Westling et al. (2015) also advocated for early intervention in stating, "Early intervention and early childhood special education is particularly critical for the support of young children with severe disabilities. The earlier a child receives intervention services, the greater the likelihood is that the child will benefit from those services." (p. 446). In addition, families benefit from the intervention services provided as they receive support throughout the process of deciding the best and most effective plans for their children (Westling et al., 2015). Most experts agree that early intervention services should take place in natural environments in the context of daily routines, as in accordance with the Individuals with Disabilities Education Act (IDEA) (NC Department of Health and Human Services, 2002).

As children with special needs enter school or child-care settings, one of the most important strategies to implement is inclusion with similar-aged, typically developing peers (Howard et al., 2014). Copple et al. (2009) provided an illustration of an ideally inclusive environment, "Inclusion of children with disabilities and other special needs means more than their simply being present in the classroom; it means, rather, they are active participants as a part of the classroom community" (p. 35). Howard et al. (2014) described the benefits of inclusion as it relates to language development,

> Children (with special needs) benefit from opportunities to engage in structured play with children whose language is developing normally. These peer models provide their friends more things to talk about, correct models of language structure, and appropriate ways for using language in a social situation. (p. 129)

Also in support of inclusion for the enhancement of language development, the NC Department of Health and Human Services (2002) stated, "Children with disabilities make more progress in language and social skills in inclusive settings than in segregated settings apart from children without disabilities" (p. 5).

As teachers and parents follow best practices for the development of their students and children, it is important to provide support with intentionality as it relates to literacy and language development (Heroman et al., 2010). The following is a check-list of intervention strategies designed for teachers and/or parents that may be used to enhance literacy and language development for children with special needs between the ages of birth-five, many strategies of which are similar to those of typically developing peers:

Language:

- Respond to any attempts of communication including grunts, points, coos, and babbles (Bennett-Armistead et al., 2005).
- Talk frequently to and sing songs with your child (Heroman et al., 2010).
- Talk to children throughout daily routines such as bathing, changing, feeding, and traveling. Explain the activities as you go, introducing new vocabulary when possible (Bennett-Armistead et al., 2005).

- Pay attention to children's non-verbal cues such as smiling, laughing, and reaching. Make eye-contact and exchange positive non-verbal interactions (Copple et al., 2009).
- Play games that initiate back-and-forth exchanges such as peek-a-boo, pat-a-cake, and rolling a ball back and forth (Copple et al., 2009).
- Provide directions and expectations that are clear and concise. Repeat when necessary (Heroman et al., 2010).
- Provide supplemental aids if necessary. Examples include picture exchange systems (PECS), object communication systems, single switch communicators, speech generating devices, and communication apps for an ipad (Westling et al., 2015).
- For children who use sign language, supplement manual sign with oral communication (Howard et al., 2014).
- Provide a wealth of opportunities for children with disabilities to socially interact and communicate with peers who do not have disabilities (Howard et al., 2014).
- Connect new concepts with actions or concrete objects to encourage language (Charlesworth, 2008).
- Provide routines that are predictable and consistent, carefully introducing changes (Heroman et al., 2010).

Literacy:

- Read aloud to children as often as possible using expression, vocal variety, eye contact, and animation (Fox, 2001).
- Provide infants and toddlers with books that are colorful, bright, and have plenty of pictures. Offer books that are washable, plastic, board books or vinyl and those that could be used at bath time (Zero to Three, 2003).

- Create small photo albums that contain pictures of familiar family members or friends for infants and toddlers to explore (Zero to Three, 2003).
- Use rhyming, singing, and finger-plays to help teach phonological awareness skills (Heroman et al., 2010).
- Start/participate in a book/literacy lending program where children can check out quality books, CDs, and other literacy materials for use at home (Lawhon et al., 2002).
- Make sure that all books and literacy materials are stored in areas where they are accessible to all children, including those who are in wheelchairs (Heroman et al., 2010).
- Add textures to illustrations in books for children with special needs (Heroman et al., 2010).
- Adapt books to meet the individual challenges of students in order to promote independence such as adding extensions or tabs to pages in order to assist page turning (Westling et al., 2015).
- Supply children with a variety of writing materials to explore including crayons, markers, pencils, pens, and even envelopes, ink pads, rubber stamps, clip boards, and chalk (Bennett-Armistead et al., 2005).
- Accept all forms of writing (even scribbling), appreciating the growing process of emergent writing (Bennett-Armistead et al., 2005).
- Provide children with pictures books that contain photos of classmates to encourage language, literacy, and social interaction (Heroman et al., 2010).
- Expose children with visual impairments to books written in Braille (Justice, 2010).
- Offer books that engage the senses such as tactile books, pop-up books, and those with scratch and sniff features (Heroman et al., 2010).

Dual-language Learners

Children who are dual language learners have the challenge of learning both the English language and the language spoken in their homes (Passe, 2013). Passe (2013) explained why the term "dual-language learner (DLL)" is more appropriate than the terms "English-language learner (ELL)" or "limited English proficiency (LEP)", "It respects the importance of both languages. English is the practical language needed to succeed in school and the wider world. The home language is needed for maintaining family relationships, values, and traditions" (p. 2). Although children who are DLL still need a significant amount of support in learning the English language, many of them have already mastered necessary literacy skills such as storytelling and the vocabulary and grammar expectations of their home languages (Heroman et al., 2010). Passe (2013) described the role of the educator in facilitating the transfer process, "Young children do not necessarily acquire these skills (vocabulary, oral language, alphabet knowledge, phonological awareness, and print concepts) in their home language and transfer them to English automatically. Educators need to consciously help dual-language learners acquire early literacy skills" (p. 8-9). As teachers and educators work with children who are DLL, the ultimate goals should be to respect individuality, maintain the child's home language, and teach the English language with intentionality (Heroman et al., 2010).

The following is a check-list of intervention strategies designed for teachers and/or parents that may be used to enhance literacy and language development for children who are dual-language learners between the ages of birth-five:

Language:

- Supplement speech with non-verbal cues such as gesturing, demonstrating, or using facial expressions (Heroman et al., 2010).
- Encourage frequent social interactions between English speaking and DLL peers (Heroman et al., 2010).
- Avoid using background music in the classroom to help children distinguish meaningful interactions from sounds that may distract (Passe, 2013).
- Eliminate unnecessary transitions from the routine. Routines should also be consistent and predictable (Passe, 2013).
- Show children that you value their home language by asking them to teach you words, phrases or songs (Bennett-Armistead, 2005).
- Begin teaching English by asking more close-ended questions rather than open-ended. Add open-ended questions as children progress (Heroman et al., 2010).
- Provide a balance of activities that focus heavily on language with activities that feature a lessened language focus (Passe, 2013).
- Introduce English vocabulary by associating it with pictures, objects, gestures, and words from the child's home language (Heroman, 2010).
- Conduct small group activities with a balance of English speaking students and DLL students (Passe, 2013).
- Use modeled-talk to introduce words associated with children's interest during play (Passe, 2013).

Literacy:

- Choose books that are interesting and contain predictable text (Passe, 2013).

- Allow children to take home books and recordings in the English language to supplement learning (Bennett-Armistead, 2005).
- Read the same book repeatedly over the span of a few days (Passe, 2013).
- When possible, allow DLL students to pair with an older student for book readings and journal drawings (Passe, 2013).
- Incorporate technology (computer software, ipad applications, etc.) that uses both English and the child's home language (Heroman et al., 2010).
- Use rhyming, singing, and finger-plays to help teach phonological awareness skills of English sounds (Heroman et al., 2010).
- Accept all forms of writing (even scribbling), appreciating the growing process of emergent writing (Bennett-Armistead et al., 2005).
- Supply children with a variety of writing materials to explore including crayons, markers, pencils, pens, and even envelopes, ink pads, rubber stamps, clip boards, and chalk (Bennett-Armistead et al., 2005).

Implications/Conclusion

The magnitude effects of providing intentional literacy and language interventions in early childhood are significantly overwhelming (Gullo, 2013). Literacy and language are, in addition, interrelated domains to which experiences in one area have an undeniable impact on the other as Copple et al. (2009) explained, "Children's language development is profoundly affected by early conversational and literacy experiences, and kindergartners vary greatly in such experiences" (p. 210). Gullo (2013) also indicated, "Children enter kindergarten at varying levels of language and literacy development. Between the ages of birth-five, language and literacy skills and knowledge are shaped by elements and experiences in the child's home and in

their early education opportunities" (p. 418). The reason for such variation in experiences is monumentally related to the role of the adult in facilitating communication and meaningful literacy interactions (Lawhon et al., 2002). Copple et al. (2009) added, "Children's exposure to hearing books read aloud to them—an important predictor of children's language development—varies depending on the quantity of books in the home, the literacy level of the adults in the family and their interest in reading, access to a children's library, and so forth" (p. 210). Literacy and language exposure in early childhood has the potential to impact children in substantially positive or negative ways depending on the intensity level of experiences (Lawhon et al., 2002).

So, what are the impacts of literacy and language experiences as they relate to future academic success and what does that mean for teachers and parents? According to Gullo (2013),

> Early language and literacy development has been found to be highly correlated with later school achievement. Language and literacy proficiency in the early years is seen as a leading indicator in a child's educational development by providing schools with the initial signs of progress towards academic achievement. (p. 413)

Academic achievement relies heavily on a strong foundation in literacy that is more clearly evident by the time students reach the fourth grade, a transitional period in which children move from "learning to read to reading to learn" (Gullo, 2013, p. 414). In order to ensure that children have a solid base for learning literacy and language skills, it is important for teachers and parents to collaborate and work as an efficient team to provide intentional interventions that have the potential to predict future scholastic achievement (Lawon et al., 2002). Gullo (2013) pointed out that, "The development of early language and literacy skills are facilitated by both within school

and out of school activities" (p. 419). Bennett-Armistead et al. (2005) also added, "As educators and people who care for and about young children, we have an obligation to develop children's literacy skills and understandings along with other aspects of their developing selves" (p. 15). That obligation is powerful, highly influential, and potentially life-changing. It is critical for children that the adults in their lives provide the interventions and assistance necessary for them to achieve future academic success (Lawhon et al., 2002). In fact, "literacy, like nothing else, puts the whole world in their hands" (Bennett-Armistead, 2005, p. 12). Perhaps Vygotsky said it best as he proposed, "What the child is able to do in collaboration today, he will be able to do independently tomorrow" (Smagorinsky, 2013, p. 199).

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