Chapter 5
Language and Literacy

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Key Questions

1. What is language development?
2. How can we encourage and support language development in children?
3. How is oral language development tied to overall literacy development?
4. What is emergent literacy?
5. How do we support literacy growth?

A newborn's head cupped in the hands of a loving parent initiates the tender communication needed for later literacy skills. The child hears the utterings and intonations of the parent and learns the cadence and sounds of the native languages spoken.

It is important to distinguish between language, speech, and communication. "speech is a verbal means of communication (Owens, 1996, p. 7); language can be defined as a socially shared code or conventional system for representing concepts through the use of arbitrary symbols and rule-governed combinations of those symbols (p. 8); and communication is the process participants use to exchange information and ideas, needs, and desires" (p. 11). Wolfe and Flewitt (2010) assert, "The purposes for which literacy is used range from expression of everyday needs through words, gesture and action to the human desire to participate in wider social and cultural practices and to 'fix' ideas for distant or future audiences" (p. 387).

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One can readily see, then, that infants communicate long before they utilize speech as we know it. Also, one can communicate without the use of speech. However, the purpose of this chapter is to elucidate the importance of language development, especially in young children, and its connection to later conventional literacy. Additionally, means and activities to enhance this development will be outlined and explored.

Theoretical Background

Language development, though seemingly straightforward to the parent observing the neuro-typically developing child, may seem simple and without great effort. This is deceivingly naive though, because the development of language is a complex endeavor employing many systems of the child and his surroundings.

As Hirsh-Pasek and Golinkoff (2012) note:

> Moving back to the basics, we have seen that language learning can be distilled into three main tasks: a) finding the units of speech (or handshapes) that will become the sounds, words, phrases and sentences, b) finding the units in the world (objects, actions and events) that will be labeled by language, and c) mapping between word and world in ways that move from speech to meaning and meaning to speech in the native tongue (or tongues). (p. 25)

This, in the context of relationships, relegates caregivers to prime purveyors of language, communication, and speech. By conversing with infants and young children, "caregivers expose infants to the rules, contexts, and patterns of language" (Martin & Fabes, 2006, p. 196). This language is enhanced and expanded as the child grows through interactions with adults and more capable peers.

Hirsh-Pasek and Golinkoff (2012) further offer "six principles of language learning that are consistent with the literature and that might guide practice in the living room and the classroom" (p. 25).

Principle 1: Children learn the words that they hear most.
Principle 2: Interactive and responsive rather than passive contexts favor language learning: Social interaction matters.
Principle 3: Children learn words for things and events that interest them.
Principle 4: Children learn words best in meaningful contexts.
Principle 5: Vocabulary learning and grammatical development are reciprocal processes.
Principle 6: Keep it positive.

Furthermore, they assert, "taken collectively, the 6 research-derived principles of language development offer a way to alter the trajectory of a child's language development. The principles dictate a kind of pedagogical approach that yields optimal language growth" (pp. 25–32).

The child hears language from infancy (and most likely in utero) and both ingests and responds. "The foundations of optimal language and literacy development are formed in the earliest months and years of life, when the primary "educators" are the main care providers - most often parents and members of the extended family" (Johnson, 2012, p. 30).

Oracy is the root of literacy in typically-developing children. " Successful reading requires both a foundation of oracy – expressive and receptive language facility including meaningful vocabulary paired with content knowledge, grammar and syntax , and literacy – sequential and directional discrimination of symbols and collections of symbols, phonemic perception, sound-symbol connection for letters and letter clusters, and facile naming. And reading requires motivation rooted in relationships, joyful modeling, curiosity, meaningful reading affordances, and freedom from fear of failure or embarrassment" (Johnson, 2012, p. 7).

This oracy is encouraged and developed by the experiences of the child in the many contexts in which he finds himself. Early beginnings include the arms of caregivers and loving adults and children. Language requires connections and is learned through communicative relationships. It is not established through television, tapes, or apps. Its roots are relational.

Children establish vocabulary through conversations and learn it incidentally through being spoken to and read to. Flash carding and repetitive practice are not among the best practices for language attainment. Best in the natural environment for typically developing children, language is learned in everyday situations.

While strolling the aisles of a grocery store, a new grandmother quietly and calmly described her surroundings and items to purchase to her near-newborn grandchild. This was an appropriate exchange and the child simply gazed and *listened* as Grandmother went about her routine.

Parents are both pleased and encouraged by the emotional response of the child when he first "talks" in coos and "communicates" in smiles and wiggles. This behavior, encouraged by loving and competent caregivers, builds the developing language in the child.

And the child learns to "read" long before he learns to read. The exposure to language and books establishes the sense of story within the child. Using repetitive and predictable texts encourages the child to "try on" reading and children can be heard repeating the text in subsequent readings.

Traveling recently on an airplane, a young child could be heard reciting the familiar and predictable text of the perennially popular Bill Martin, Jr. and Eric Carle text, *Brown Bear*, *Brown Bear* (1967). Lilting through the cabin, her young voice captivated the passengers as she recited, *Brown bear*, *brown bear*, *what do you see*? (with the accent going a few octaves higher on the "you"). She recited the book multiple times. Although the passengers did not break out in applause, they should have. The child was 2 years old, had memorized the words and intonations based on multiple readings by an adult and through the sharing and transacting with the child. She was basking in the throes of emergent literacy, and all of the passengers on a Boeing 737 witnessed this without realizing the monumental achievement.

This child was in the early reading stages, but was not reading as we think of it conventionally. She was resting confidently in her emergent literacy.

Roth, Paul, and Pierotti (2006) define emergent literacy in this way:

> Children start to learn language from the day they are born. As they grow and develop, their speech and language skills become increasingly more complex. They learn to understand and use language to express their ideas, thoughts, and feelings, and to communicate with others. During early speech and language development, children learn skills that are

> important to the development of literacy (reading and writing). This stage, known as emergent literacy, begins at birth and continues through the preschool years. Children see and interact with print (e.g., books, magazines, grocery lists) in everyday situations (e.g., home, in preschool, and at daycare) well before they start elementary school. Parents can see their child's growing appreciation and enjoyment of print as he or she begins to recognize words that rhyme, scribble with crayons, point out logos and street signs, and name some letters of the alphabet. Gradually, children combine what they know about speaking and listening with what they know about print and become ready to learn to read and write. (para. 1)

Emergent literacy is a precursor which can be supported in multiple ways without escalating conventional reading to an earlier age.

The push for early reading and other forms of literacy, however, is disconcerting. Again, the National Association for the Education of Young Children (NAEYC) and the International Reading Association (IRA) (2009) implores us:

> Teaching practices must be appropriate and effective for *young* children, not just adaptations of what may work in the later grades. These practices must respond to young children's changing developmental characteristics as well as to their culture, language, and individual learning needs. (p. 1)

Again, they recommend the following in relation to literacy development:

From Infancy Through Third Grade: Phases in Children's Development of Reading and Writing

Phase 1: Awareness and exploration (infancy through preschool)
Phase 2: Experimental reading and writing (kindergarten)
Phase 3: Early reading and writing (grade 1)
Phase 4: Transitional reading and writing (grade 2)
Phase 5: Independent and productive reading and writing (grade 3)

Note: Grade levels are approximate. Many children function at higher or lower developmental levels than their grade would predict, requiring that early childhood programs be prepared to differentiate and individualize instruction. (p. 2)

This is also a reminder that must also examine the important relationship between listening, speaking, reading, and writing. Van Allen (date unknown) prompted us that what a child hears, he can say; what he can say, he can write down; what he can write down, he can read and others can read. This seeming obvious chain of events is an "aha" moment for children. It is at that point which many break the code of language, comprehending its importance and power. This is not to be confused with the process of decoding, a tool to help decipher and sound out the words of the language (phonics), but rather the means to understand the larger context. That is, children understand their place in the language cycle and their authority to make meaning!

Currently, we think of multiple literacies in relation to the education children. Many have their roots in conventional definitions of literacy (reading and writing), but others are based on that conventionalism (mathematical vocabulary and its comprehension and usage, geographical literacy, economic literacy, etc.)

NAEYC (2009) also reminds us:

- Children take their first critical steps toward learning to read and write very early in life.
- Children do not become literate automatically; careful planning and instruction are essential.
- Ongoing assessment of children's knowledge and skills helps teachers plan effective instruction.
- No one teaching method or approach is likely to be effective for all children, at all times.
- As children move from preschool into kindergarten and the primary grades, instruction focused on phonemic awareness, letter recognition, segmenting words into sounds, and decoding printed text will support later reading competence.
- Children who are learning English as a second language will become literate more easily if they have a strong foundation in their home language. (p. 1)

Professional Standards

It is noteworthy to discuss standards in regard to language and literacy in young children. Because language development begins in the early years, let us start with recommendations from the National Association for the Education of Young Children, the professional organization which defines early childhood as birth through age 8 (typically third grade).

First, NAEYC (2009) advocates for Developmentally Appropriate Practice (DAP). DAP follows the following tenets:

- Developmentally appropriate practice requires both meeting children where they are—which means that teachers must get to know them well—and enabling them to reach goals that are both challenging and achievable.
- All teaching practices should be appropriate to children's age and developmental status, attuned to them as unique individuals, and responsive to the social and cultural contexts in which they live.
- Developmentally appropriate practice does not mean making things easier for children. Rather, it means ensuring that goals and experiences are suited to their learning and development *and* challenging enough to promote their progress and interest.
- Best practice is based on knowledge—not on assumptions—of how children learn and develop. (p. 1)

DAP, then, meets children where they are in regard to their language learning while recognizing that child development is a complex endeavor and all children are not, and should not be, at the same place at the same time.

Table 5.1 Comprehension and collaboration

CCSS.ELA-Literacy.SL.K.1	Participate in collaborative conversations with diverse partners about *kindergarten topics and texts* with peers and adults in small and larger groups
• CCSS.ELA-Literacy.SL.K.1a	Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion)
• CCSS.ELA-Literacy.SL.K.1b	Continue a conversation through multiple exchanges
CCSS.ELA-Literacy.SL.K.2	Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood
CCSS.ELA-Literacy.SL.K.3	Ask and answer questions in order to seek help, get information, or clarify something that is not understood

Table 5.2 Presentation of knowledge and ideas

CCSS.ELA-Literacy.SL.K.4	Describe familiar people, places, things, and events and, with prompting and support, provide additional detail
CCSS.ELA-Literacy.SL.K.5	Add drawings or other visual displays to descriptions as desired to provide additional detail
CCSS.ELA-Literacy.SL.K.6	Speak audibly and express thoughts, feelings, and ideas clearly

Additionally, the International Reading Association (IRA) and NAEYC authored a joint position statement (2009) which advocates:

> Learning to read and write is critical to a child's success in school and later in life. The National Association for the Education of Young Children (NAEYC) is committed not only to helping young children become literate but also to fostering their motivation to read and write for enjoyment, information, and communication. To reach these outcomes, teaching practices must be appropriate and effective for *young* children, not just adaptations of what may work in the later grades. These practices must respond to young children's changing developmental characteristics as well as to their culture, language, and individual learning needs. (p. 1)

The National Council of Teachers of English (NCTE) and the International Reading Association (IRA) recognize:

- These standards assume that literacy growth begins before children enter school as they experience and experiment with literacy activities—reading and writing, and associating spoken words with their graphic representations.
- They encourage the development of curriculum and instruction that make productive use of the emerging literacy abilities that children bring to school.

Finally, the early years of language and literacy development are foundational to the acquisition of later skills. The Common Core Standards for English Language Arts (ELA) begin in kindergarten, but they have their roots long before. Below, the Common Core Kindergarten ELA standards are noted (Tables 5.1 and 5.2):

In relation to the other standards, one can see interrelationships between NAEYC, NCTE, and IRA in Table 5.3. For example:

Table 5.3 Interrelationships across standards

CCSS.ELA-Literacy.SL.K.1	Participate in collaborative conversations with diverse partners about *kindergarten topics and texts* with peers and adults in small and larger groups
NAEYC	All teaching practices should be appropriate to children's age and developmental status, attuned to them as unique individuals, and responsive to the social and cultural contexts in which they live
NCTE	These standards assume that literacy growth begins before children enter school as they experience and experiment with literacy activities—reading and writing, and associating spoken words with their graphic representations. They encourage the development of curriculum and instruction that make productive use of the emerging literacy abilities that children bring to school
NAEYC/IRA	To reach these outcomes, teaching practices must be appropriate and effective for *young* children, not just adaptations of what may work in the later grades. These practices must respond to young children's changing developmental characteristics as well as to their culture, language, and individual learning needs. (p. 1)

Strategies

Language, like development in the other domains, is variable in its acquisition. We can, however, encourage its development in multiple ways.

The American Academy of Pediatrics (n.d.) does not recommend "screen time" (televisions and various other electronic media) before the age of two. Stating, "television and other entertainment media should be avoided for infants and children under age 2. A child's brain develops rapidly during these first years, and young children learn best by interacting with people, not screens," (para. 6) this position has often been generalized to include early childhood populations at large and beyond the age of two. However, the mention of interactiveness in regard to relationships with children and adults is crucial when discussing language development. "Children's active participation in social interaction is also vital to developing complex forms of language" (Martin & Fabes, 2006, p. 196). And "understanding the role of digital technologies in the processes of young children's literacy development is crucial to ensure that all children have equal access to opportunities to learn in schools today" (Wolfe & Flewitt, 2010, p. 397).

So, rich language development may be dependent on the abounding interactions with language that can be provided with, again, adults, older siblings, and other caregivers. A static, one-dimensional television screen does not develop language. However, the discussion of the topic and age-appropriate television program discussed with and viewed by the caregiver and the 4-year-old has the potential to enhance language.

Tools

Take, for example, the Public Broadcasting System (PBS) which brought us Sesame Street®, Mister Rogers®, and Barney®. These programs, when viewed together, tackled important concepts and demonstrated language in multiple ways. Today's children have far more sophisticated programming. However, it is still best viewed together, where interactions can occur between the viewers (adult and child), questions can be answered, language can be expanded, and misinterpretations corrected. PBS was and is a leader in technological display and means for learning. Along with their exceptional television programming, their Web site now offers multiple educational games and videos to be enjoyed by adults and children together.

There are multiple means today though, which can assist in the development of language and literacy. In addition to the pleasure of the feel, the smell, the texture of the "low-tech" traditional book, there are other ways to enjoy them. For example, Tumblebooks® offers e-books for purchase, though often, these books may be "borrowed" from cyber-libraries around the country. Downloaded to a tablet, phone, or computer, these stories can be enjoyed by adult and child. Like other tablet/computer options, illustrations often come "alive." The text can be read by the computer or read aloud by a caregiver. Interactive books are available by multiple vendors.

We know of the multiple benefits of shared book reading, but the tablet offers the option of many books on one device. In cars, planes, and trains, the tablet containing many books takes the place of hauling multiple books. The reader and listener can still enjoy the book in its original form, though the form is now flat and page-turning becomes a swipe. Concepts about print (CAP) can still be noted and learned, the colors are just as vibrant on the device, print size can be diminished or escalated, and books can be purchased, often, at bargain prices.

Applications on tablets and other devices are also available. Take sight discrimination as an important feature when learning to decode. Understanding the shapes of the letters and their combinations assists in later decoding and may be strengthened by exercises which involve looking for certain pictures, letters, icons. The popularity of the *Where's Waldo* (Hanford 1997) books and *I Spy* (Marzollo) had their precursor in the popular "hidden pictures" feature of *Highlights* magazine. Many baby boomers may remember seeking and circling the hidden pictures with a parent or older sibling. Such apps are readily available at low cost or now cost for download to phones or tablets. Highlights® even has such an application.

Another handy literacy tool, and relatively low tech which has gone high tech, is the song. Singing with young children can boost vocabulary through incidental learning when paired with the expertise of an adult.

Mrs. Brown was a master at this in her second grade classroom of the 1960s. Each afternoon, she brought out her autoharp and strummed chords while teaching her charges the words to American folk songs. She painstakingly, and with great pleasure, explained the meaning of the lyrics as young voices lifted songs, centuries old, into the classroom. Joyful, sad, and silly songs were learned adding to vocabulary and building memory capacity in children who thought the songs were just for fun.

Today, Mrs, Brown might use a computerized autoharp with the lyrics being transmitted on a Smartboard®.

Song apps, CDs, and videos can be added to the repertoire of parents, teachers, and caregivers as another means to build language and literacy. Lyrics of songs online and/or printed provide yet another way to expose children to print. Learning the songs, repeating the singing multiple times, and pairing them with the printed materials adds to the power of the literacy interaction between child and adult. This does not even take into account the applications which highlight the words in stories and songs as the words are spoken or sung. Caution is urged, however, so that these functions do not serve as a deterrent to learners by distracting them. Apps are plentiful and easily downloadable.

Although it is tempting for parents to let children simply learn the apps and games on their own, it is better to work with the child. Although a matching game may be easy to decipher, and beneficial to the child, expanding on the game through use of vocabulary and asking probing questions can be of more lasting benefit. For example, when using I-Tunes *Vocal Zoo*®, Sweeny (2011) suggests "this app could be used to build vocabulary by asking your child to find a particular animal, or more advanced auditory comprehension (and complex sentence modeling) were you to use descriptive attributes in exploring this app with your child: 'I see an animal that swims AND has a beak. Do you?'" (para. 3).

Language development, as previously noted, is the key to later literacy development that has traditionally encompassed reading and writing. Reading and writing are complementary processes which reinforce one another. Just as reading behaviors emerge, so do writing behaviors. This concurrent development can be capitalized on through the use of various technologies. From the pretend tapping on a keyboard or "writing" through a program in which the child uses his finger as a writing implement, literacy is being grown.

Consider the following: children's first attempts at writing may simply be squiggly lines. But these same lines are often then "read back" to adults. The child is demonstrating his understanding of print, that print carries meaning. Again, this demonstrates the growing understanding and emerging literacy within the child. The astute adult will use all means to encourage this "writing" knowing that it will reinforce his reading both in the exploratory and emergent sense.

Applications are bountiful in regard to language development, memory boosting, decoding, traditional reading, singing, phonemic awareness, etc. The applications are continuously created and upgraded. The adult, however, is vital to choosing that which is developmentally appropriate and which provides suitable scaffolds for young learners. Technology and the promotion, scaffolding, and reinforcement of literacy learning are still in early stages. More research is needed to determine the benefits and possible detriments of the practice (Table 5.4).

Wolfe and Flewitt (2010) remind us:

> Central to this field of research using multiple, visual media for data collection and analysis is the development of robust frameworks for the analysis and representation of multimodal activity, and formats for presenting data which facilitate the reconstruction and interpretation of sequences of non-verbal and verbal interaction that are often intricately interwoven and overlapping. (p. 397)

Table 5.4 Examples of tools applied to standards

NAEYC	All teaching practices should be appropriate to children's age and developmental status, attuned to them as unique individuals, and responsive to the social and cultural contexts in which they live.	Application: Technological applications should be appropriate for the age. Interaction with adults is vital to the development of language.
NCTE	These standards assume that literacy growth begins before children enter school as they experience and experiment with literacy activities—reading and writing, and associating spoken words with their graphic representations. They encourage the development of curriculum and instruction that make productive use of the emerging literacy abilities that children bring to school.	Application: Children are developing in the areas of language and emergent literacy from infancy. Care and intentionality is important in choosing ways to best foster the growth of this emerging literacy.
NAEYC/IRA	To reach these outcomes, teaching practices must be appropriate and effective for *young* children, not just adaptations of what may work in the later grades. These practices must respond to young children's changing developmental characteristics as well as to their culture, language, and individual learning needs. (p. 1)	Application: The escalation of curriculum, concepts, skills through technological means is cautioned.

We must also consider, "early childhood education professionals may be 'missing the boat' if the wide array of twenty-first century developmentally appropriate technologies are not integrated into today's classrooms" (Parette et al., 2013, p. 171).

Productivity and Creativity Tools

Applications and programs which assist in the development of language and literacy flourish in today's society. From art tools which can be used on a iPad, smart board, or pad cam, tools which permit children to produce items related to literacy are available and often, inexpensive.

Using a Language Experience Approach, teachers of young children can elicit words, phrases, and stories from young children. These stories placed in a word processing program, such as Word®, can then be printed into personalized books which young readers can read based on their own lived experiences which provide extra cues for the young reader. Illustrations can be added using similar programs, such as Kids Paint HD®, in which children can draw or paint.

Likewise, there are also apps which create book. Book Creator® for the iPad provides the opportunities for fledging authors to create their personalized books.

Communication and Collaboration Tools

Using the iPad and other such tablets for communication have gained favor in the autism community as well as for others who may have communication difficulties. This assistive technology may have other applications for children who have delayed speech, thus offering some relief from the frustration of trying to communicate without the use of speech.

Other Tools

Applications exist also for practice. These skill building activities do not offer the creativity and the ability to collaborate or communicate. Usually in the form of games, they offer the gamer the opportunity to rotely apply knowledge. Akin to worksheets on a tablet or phone, many do permit the player to enjoy the practice while advancing in levels or difficulty. Also, they do provide rapid feedback to the player to reinforce or remediate.

Conclusions

The use of technology to encourage and nurture early language development and literacy is still in its early stages. There may be many untapped applications of technology to assist young children as they grasp the complexities of language. It is clear that some parents see technology as beneficial, tentative, and cautionary. As Pasnik and Llorente (2012) report in their *2012 Study of Preschool Parents and Caregivers Use of Technology* and *PBS KIDS Transmedia Resources*:

Parents believe that technology is a powerful support for learning, see technology skills as a necessary part of their child's twenty-first-century education, and support use of technology in the classroom with certain limits.

- Although television and computers are the most commonly used technologies, many children have access to a variety of digital devices within their homes.
- Parents tend to associate specific media platforms with learning, often pairing a device's form with its potential to be educational.
- Despite generally positive attitudes towards technology and its ability to support learning, parents express concern that too much technology can keep children from other healthy experiences and they limit its use.
- Although many parents choose to set limits on their children's media use, these limits vary by family and by the age of the child.
- Parents gravitate toward television programs, Web sites, and digital games designed specifically for children by PBS, Nickelodeon, and Disney.

- Although families move fluidly through a great many programs and digital activities, the promise of learning undergirds many of the decisions parents make.
- Home technology-infused routines can be social, as digital play is an occasion for children to watch, explore, and play together with their parents and other family members.
- Parents engage in a wide variety of roles when it comes to media engagement, from technology provider to monitor to learning supporter.
- Parents look to the media, other adults, and their child's school for information when making decisions about children's technology use.
- Parents have a growing appetite for educational technological resources and would like to have more time to use them with their children. (p. 4)

We have only begun to tap this important resource. The many facets of technology and the assistance that technology may be able to offer should not be ignored.

Application Activities

Idea 1

Using a tablet, have the learner produce their writing individually. Export this writing into cyber-portfolios as examples and baselines for certain points during the year to document growth across time. This could involve both samples of handwriting, as well as examples of their samples of stories and nonfiction items.

Idea 2

Use a tablet for sharing stories with a small group of young children or an individual. Teach the children how to turn pages by modeling on the tablet. Let children explore the tablet and learn to read stories on the tablet or retell stories using the tablet.

Idea 3

Create a list of current apps for parents to promote language and literacy development.

Idea 4

Locate apps and Web sites which have familiar children's songs. Display them to children on a Smartboard or pad cam. Sing along! Provide lyrics in a "songbook" which children can illustrate and use in subsequent sing-alongs.

Idea 5

Conduct a current scan of apps and programs. Determine which are developmentally appropriate for the learner with whom you work. Can some be used for enrichment? For remediation? Which allow for enhanced creativity and development? Can they be used to accommodate the needs of learners? What benefits and toes to standards do they demonstrate?

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