Emergent Literacy
for Children With Disabilities

Occupational therapists and occupational
therapy assistants working in classrooms
and early intervention
settings are frequently involved in
children’s literacy programs. Practition-
ers often work with children who have
a range of challenges that interfere
with literacy learning, such as fine
motor problems that affect writing or
the ability to manipulate a book. The
integration of occupational therapy
services into the classroom and other
natural environments has created an
increased number of opportunities for
practitioners to interact with educators
around children’s literacy needs. Practi-
tioners and educators offer different
backgrounds related to literacy; each
has his or her particular expertise and,
in best practice, can collaborate to
promote positive student outcomes,
family capacity for caregiving, and child
development and growth. Knowledge
of literacy development can give
occupational therapy practitioners a
sense of educational practices, allowing
them to better assist educators, and
ultimately resulting in the development
of appropriate activities, materials, and
adaptations. This article focuses on
the process of emergent literacy, and
the ways in which occupational
therapy can support children’s learning.

WHAT IS EMERGENT LITERACY?
The term emergent literacy describes
the process of exploratory reading and
writing experiences of children before they learn to formally read and
write. Emergent literacy is not about
learning phonics, spelling words, or
demonstrating comprehension—these
are all conventional literacy skills.
Instead, emergent literacy refers to the
foundational experiences that prepare
children for such conventional instruc-
tion once they enter elementary school.
Emergent literacy starts at an early
age, as infants, toddlers, and young
children actively engage in a range
of experiences with oral and written
language. Embedded in rich social
interactions, most young children see
print, experiment with print, and watch
others use print. They are exposed to
a wide range of books and writing tools
and are encouraged to explore them.
Characteristic of other emerging skills,
children’s early understandings and
attempts are random, inconsistent, and
fluctuate from day to day. Most adults
have high expectations of children and
without question facilitate ongoing lit-
eracy experiences. Emergent literacy is
not readiness-based; instead, it is based
on the belief that all children are ready
for literacy from a very early age.

PRINCIPLES OF EMERGENT LITERACY
Teale and Sulzby outlined four prin-
ciples that apply to the earliest stages of
literacy learning. These key principles
are described below, followed by impli-
cations for children with disabilities,
including those with significant dis-
abilities (adapted from Koppenhaver et
al.), and suggestions for occupational
therapy interventions.

1. Literacy Learning Begins At or
Even Before Birth
Most children are exposed to literacy
before they even know what to do with
it. Many parents create environments
filled with books, crayons, print-rich
toys, and even print-rich clothes and
room decorations. Children cannot help
but see print all around them (e.g.,
labels, signs, recipe books, mail, post-
ers). They also see others using print
(e.g., parents writing a shopping list,
reading the newspaper). Adults read
to children, often over and over; some
parents even read to their children
in utero. These rich experiences are
ongoing and numerous; in fact, some
children have more than 1,000 hours of
these early print-based interactions by
the time they begin school. Through
this emergent lens, it is clear that chil-
dren are born “ready” for literacy.

Children With Disabilities
Although most typically developing
children are immersed in rich emergent
literacy experiences, the experiences
of children with disabilities may be
fewer and qualitatively different. The
early years for children with disabilities
may be filled with doctor’s appoint-
ments, therapies, day care issues, and
the challenges that families face when
coping with a disability, leaving less
opportunity for literacy and increasing
stress on the family.

Many of these challenges are beyond
children’s control. For example, children
who use wheelchairs and/or other
positioning equipment may not be able
to easily see print in the environment
or may not be able to watch adults

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reading and writing. Physical and sensory difficulties may decrease children’s opportunities to easily manipulate and interact with books, crayons, and print materials. Children with tactile defensiveness may not want to hold a crayon to scribble. Children who are blind may not be able to touch braille in their environment. Children with attention problems may not sit in an adult’s lap long enough to look at a book. There is great need for simply getting literacy into children’s environments in such a way that it can be frequently and easily encountered. Children’s literacy experiences may also be restricted by low expectations and erroneous beliefs about development. Many well-intentioned adults may believe that children with disabilities, especially those with significant disabilities, are not yet “ready” for literacy opportunities and as such these opportunities are withheld.6

Regardless of the degree of disability, any number of these barriers may reduce the time spent on emergent literacy activities. Because of limited emergent literacy experiences, children with disabilities face the risk of not developing conventional literacy skills.3 However, current research has found that children with disabilities can make progress when given rich emergent literacy activities, interactions and the appropriate adaptations to access literacy materials independently.5,7,8

**Implications for Occupational Therapy**

Reflect on your beliefs about literacy development. Start incorporating literacy into occupational therapy intervention plans for all children now—don’t wait.

- **Collaborate with parents and educators** to identify needs and possible solutions for getting literacy into children’s lives.
- **Consider children’s sensorimotor and visual motor needs** to choose the most appropriate presentation and position of print or braille. Help parents select appropriate books and other literacy materials that meet children’s needs.
- **Create a print- or braille-rich environment.** Place print or braille in places where it is visible and reachable by children (e.g., on walls at wheelchair height, on toy boxes and bins, in cubbies). Use packing tape to affix a changing assortment of print materials (e.g., maps, menus, comics, diagrams, recipes) to laptrays.
- **Use toys that have print or braille.** Braille can be added to toys using a braille labeler (www.independentlivingaids.com).

**2. Reading, Writing, Speaking, and Listening Abilities Develop Simultaneously**

Development in each of these areas can affect development in all of the others. Their interconnectedness can be demonstrated in the most common of emergent literacy experiences, such as reading bedtime stories to young children. This shared experience imparts a wealth of knowledge to children, such as the purpose of books and what it means to be a reader, as well as provides a time to bond with a trusted caregiver. Children use what they have seen about the print in books to construct their own books through experimenting with writing. Shared reading is rarely a quiet time; instead it is an enjoyable, interactive activity that facilitates children’s speech and cognition. Children are encouraged to label pictures, comment, and ask questions. Adults respond to children with explanations of words and important concepts from the book. Thus, shared reading affects children’s abilities to write, speak, listen, and develop important receptive language concepts. Children’s overall success in learning is dependent on their ability to actively engage in each of the areas described above.

**Children With Disabilities**

Equal access to opportunities for reading, writing, speaking, and listening may be challenging for students with disabilities. Greater emphasis may be placed on reading in comparison to writing, or vise versa. Children who have difficulty speaking or who are
nonverbal will have difficulty engaging in verbal discussions about books and writing. The use of other methods of communication, such as augmentative and alternative communication (AAC) devices, may be a helpful solution. However, the use of AAC devices is frequently not considered due to unfounded beliefs that children need to demonstrate prerequisite skills or specific cognitive ability before being introduced to them. Current literature suggests that professionals need to get appropriate communication devices into the hands of children earlier, rather than later.9 Professionals need to work hard to create opportunities and provide support that give children access to each area of literacy development.

**Implications for Occupational Therapy**

Use a range of therapy activities that support reading, writing, speaking, and listening. Create supports that allow students to access these areas in multiple environments.

- **Reading:** Read motivating books with students while using therapy equipment (e.g., sitting on therapy balls or t-stools). Use bookstands to stabilize the book so appropriate physical support can be provided to the child as needed. Focus on the interaction. Do not worry about reading the whole book; instead, follow the child’s lead and talk about the things that capture his or her interest. Talk to parents about pointing out and reading print in the environment, such as signs when traveling in a car, cereal boxes in the grocery store, and so forth.

- **Writing:** Write short books with children. Choose ideas based on the child’s interests (i.e., favorite people, places, foods, animals, therapy activities). Take pictures of children involved in therapy activities and use them to write a book. Text can be elaborate or short one-word books that describe the activity (e.g., verb books: jump, swing, run, roll; or adjective books: fun, scary, fast, slow). It’s not just about the mechanics of handwriting; instead, it is about helping children learn to express their ideas in writing. Design art activities with adaptations for students to paint and draw; include ways for children to add letters (e.g., enlarged letter stamps).

- **Speaking:** During gross activities, sing or chant songs, rhymes, and tongue twisters (e.g., singing the ABC song while jumping on a trampoline). For children who are nonverbal, work with team members to determine an appropriate AAC device. The device could be electronic or something as simple as communication symbols presented on a board, or an eye gaze frame.

- **Listening:** Design sensory activities that help children focus and attend. Collaborate with parents and educators to develop a sensory diet embedded into daily routines. Set up a sensory schedule so that input can be offered right before literacy activities. Such input may allow children to better interact with the activities.

**3. The Forms of Print Are Just as Important as the Functions of Print**

Not only do most children learn how to form print, they also learn that print has a function—it conveys a message. Print serves a variety of functions, such as sharing information (making a shopping list), giving instructions (reading signs) and fostering relationships (writing e-mails and letters). Early on, adults teach children about these functions without much deliberate thought. They help children write for lots of different reasons. They give them freedom to experiment with writing. Children’s early motor skills are awkward and unrefined; however, their development is facilitated by the meanings that adults ascribe to the unrecognizable scribble. For example, while sitting next to a parent making a grocery list, the child makes a random mark. The parent may attribute meaning to the child’s attempt, praising him or her for the addition to the grocery list. Taking the list to the grocery store and using it teaches the child that his or her attempt conveys an idea and that something important happens as a result of writing. Writing development is dependent upon children having meaningful opportunities to learn what print is used for, as well as opportunities to gain the motor skills to freely produce print.

**Children With Disabilities**

Occupational therapy practitioners are frequently involved with the development of children’s handwriting and closely understand the difficulties that children have with letter formation. Occupational therapy for handwriting traditionally focuses on developing children’s letter formation skills and spacing. However, writing development may be slowed when therapy focuses exclusively on developing motor skills with less attention on the reason for writing. Without understanding the functions of print, forming print may have little value to children. In fact it has been suggested that having a well-grounded understanding of the functions of print may enhance the ability of children with disabilities to form print.10

**Implications for Occupational Therapy**

- **Be thoughtful** about the focus on form and function of print during writing activities. Design writing activities that highlight the functions of print.
Children With Disabilities
One of the key problems for children with disabilities is that they cannot always freely and easily access print materials, such as books and writing tools. This challenge is evident for a range of children, from those who have fine motor difficulties to those who are physically interact with print materials. Young children without disabilities learn by actively “doing,” and without question are given free rein to experiment with books, crayons, and other literacy materials. In the beginning, children do not have a clear sense of what to do with these items, and their physical abilities to manipulate them are limited and random (e.g., holding books upside down, scribbling with a crayon). Their exploration of materials is encouraged, and over time they become more refined. Children learn about writing by writing. Children learn about books by using books.

Technology Supports for Childhood Literacy
Kimberly Hartmann

Technology supports for childhood literacy may include tools to supplement or augment other strategies but not to replace other educational methods or direct interaction with educators or family members. These supports may reinforce literacy behaviors such as looking and recognizing, exploring pictures and text, and building curiosity and imagination. Assistive technology tools may also provide methods to circumvent difficulties in motor, cognitive, sensory, or communication to provide opportunities for young children to access and engage in learning experiences that develop literacy. When considering technology or assistive technology supports for childhood literacy, the team may want to consider the needs of the child, tasks to be augmented, environmental attributes, family training needs, and continuum of technology options. Technology is increasingly available in home, day care, and school environments; children often have an innate interest in technology, thus these tools can become powerful literacy supports for young children.

The following are selected resources for technology supports for childhood literacy.

Technology Adaptations To Support Literacy

Electronic or E-Texts
http://www.lili-fingers.com/ This storybook site has books that are simple, animated, and read aloud as well as related games and off-the-computer activities.

http://www.magickeys.com/books/ Contains books that are free to view online, and those available for purchase. The view online books may contain animation, speech, clickable hot spots, or cursor rollover hot spots that build cause and effect.

www.mightybook.com Has speaking books that relate to art and music, story songs, knock-knock jokes, classic songs, and stories written by children for children. Most of the books allow words to be highlighted as they are read aloud.

www.storyplace.org Has an extensive preschool electronic text library that is organized by theme. Online stories may also have associated online activities, take-home activities, parent activities, and suggested readings.

www.starfall.com Interactive, animated learning activities that are read aloud. The reading categories begin at the alphabet level, and progress to holiday-based themes for learning to read, and phonics-based independent readings.

References
completely unable to hold a book or a pencil. As a result, children with motor challenges may find literacy activities laborious and frustrating. If children are spending too much energy on the motor component of the activity, they may have little energy left to focus on the literacy component. Children with sensorimotor challenges need innovative ways to easily explore print or braille materials.

Implications for Occupational Therapy

Find ways for children to easily access and explore reading and writing.

■ Use simple book adaptations to make it easier for children to turn pages. Use page separators, such as small pieces of sponge glued onto pages or adhesive-backed felt furniture bumpers. Make books with thicker pages. Take old board books and cover the pages with a child’s favorite story. Add interest with colors, smells, photographs, and tactu- als. Be sure to add print or braille.

■ Use computer books. While there are countless options available for purchase, computer books can be made using a range of software, including PowerPoint. There are also a number of free or inexpensive Web sites with books. Here are some favorites: www.accessiblebooks.com, www.tarheel reader.org, and www.tumblebooks.com.

■ Use a range of adapted writing tools, from specialized grips to pencils that do not require hand use. The Center for Literacy & Disability Studies in North Carolina (www.med.unc.edu/ahs/clds) has developed a variety of “alternative pencils”11 for students who have difficulty using their hands or are completely unable to use them.

■ Help the family engage with the local library to learn about electronic books options, as well as story hours.

SUMMARY

Emergent literacy is a holistic view of literacy development that encompasses reading, writing, speaking, and listening. Literacy learning is based on the power of immersion in literacy rich environments, social interactions that convey the “why” and the “how” of reading and writing, and opportunities for children to explore materials and refine their evolving knowledge of print. For most children without disabilities, this development seems to happen naturally without much effort. In contrast, children with disabilities face a myriad of barriers that limit all of these essential opportunities.

“The potential to achieve some level of literacy is present in every child, and the development of that potential depends almost entirely on the opportunities provided within the child’s supportive environment” (p. 42).3 With increased knowledge of literacy development, specifically emergent literacy principles and practices, occupational therapy practitioners can work with parents, educators, and other caregivers to create these high quality, meaningful opportunities that lay the foundation for achieving real and lasting literacy.

References


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