Overview

Literacy is more than just being able to read and write; it is about understanding information and being able to communicate with others in a variety of ways. The importance of literacy is obvious. As a sighted adult, consider how you use reading and writing:

- Labels tell you the contents of the cans on the supermarket and kitchen shelves.
- Online pages, email, and text messaging put information and communication at your fingertips.
- Books and magazines provide enjoyment.
- Forms help you pay your bills and taxes as well as vote.
- Directions allow you to complete tasks such as setting up a new device at work or at home.
• Notes to yourself and others ensure that you do not have to memorize everything.

Adults who are not literate risk becoming isolated from society. Illiteracy affects their ability to find jobs, live independently, and be effective parents.

The goal of this course is to provide you with the tools and information you need to help prepare children who are visually impaired become literate in braille. The course consists of seven lessons. Lessons 1 and 2 explain the need for braille literacy and discuss various essential prereading experiences. Lesson 3 guides you through methods of teaching children to read. Lesson 4 explains the importance of the speed of reading. Lesson 5 presents methods to teach braille writing. Lesson 6 deals with tactile illustrations, and Lesson 7 discusses literacy and children with multiple disabilities. This course also includes several videos and a song, which are on the accompanying DVD.

Each lesson includes section reviews, which are for your personal development only. Complete the section reviews before going on to a new section of the course. Students who routinely do the section reviews
perform significantly better on assignments. Do not send your responses to your Hadley instructor. Rather, check your comprehension by comparing your answers with those provided.

Practice activities included in most sections allow you to try activities and consider practical application of the information in the sections.

To complete the course, you are required to submit seven assignments, one at the end of each lesson. Follow the guidelines for submitting assignments in the Getting Started instructions.

If you're ready to start learning how to prepare children to become literate, begin Lesson 1: Literacy and Essential Early Experiences.
Lesson 1: Literacy and Essential Early Experiences

Learning to read can be fun and exciting. Children who are literate will read about a wide range of subjects, and they can write to share their ideas. Literate children tend to have richer imaginations, larger vocabularies, and more interests than those who cannot read and write. As stated by noted pediatrician Robert Needlman, literacy widens a person's world; illiteracy narrows it.

This lesson begins by underscoring the importance of learning to read and write for all children, and the critical need to teach braille to those who are blind. It then describes important activities that contribute to a readiness for reading. Becoming aware of the vital importance of literacy and learning how to get children ready for braille reading will enable you to help prepare children become literate in braille.
Objectives

After completing this lesson, you will be able to
a. explain the necessity of teaching children who are blind to learn braille
b. list various emergent literacy experiences

Braille Literacy

It is very important to get children reading when they're young, long before they become adults. *All* children gain skills for coping with life when they learn to read, interpret what they read, and write.

Children who are blind must also learn to read and write. Braille literacy is a vitally important life tool for any child who cannot see print well enough to read fluently without tiring or without significant magnification. Braille is also an important tool for children whose visual conditions are likely to worsen as they get older.

A study conducted in the state of Washington found that people who learned braille at an early age did just as well, if not better, than their sighted peers in several areas, including vocabulary and comprehension.
Furthermore, recent research has shown a clear correlation between achieving braille literacy skills early in life and eventual employment. In the United States, of 2.1 million working-age adults (ages 16 through 64) who reported vision loss to the Bureau of Labor (2009), only 38 percent were identified as employed. Most of those who are employed can read and write in braille. Statistics prove that braille reading proficiency is an essential skill that allows children who are visually impaired to compete with their sighted peers in a school environment, and to succeed later in life as they enter the workforce.
Throughout a child's experiences with braille, you will help him develop three important elements for successful braille literacy, sometimes referred to as the "heart, head, and hands." The "heart" is a positive attitude, the "head" is a collection of experiences and skills, and the "hands" refer to reading techniques. Together, these three elements can lead to success for you and the child.

**The Importance of Positive Attitudes**

The Alphabetic Braille and Contracted Braille Study (ABC Braille Study), conducted between 2002 and 2007, studied literacy achievement in children who are braille readers. It found that most of the families of the high-achieving braille readers knew the braille alphabet, had braille books at home, and read print books more than four times per week. A primary goal for these families was that their children learn to read and write braille. Children whose families
have positive attitudes and realistically high expectations will be more likely to thrive and enjoy reading. Children whose teachers had a positive attitude toward braille reading and writing said they liked reading. None of the children reported disliking anything about braille.

*But can't my child just use audiobooks?* Braille gives readers another tool for literacy. It provides a much better sense of the structure of language than a recording can. A child can learn, for example, how words are spelled, how sentences are punctuated, and how paragraphs are formatted. Braille gives readers the ability to skim material quickly or review and reread it at their own pace. Braille also gives readers the ability to pause and reflect on what they have read, to use their imaginations, and put their own voices, inflections, and emphases into the material. Braille makes children active readers rather than passive listeners.
But isn't braille obsolete?

In fact, technology has made braille more accessible than ever.

Computer software programs translate material into braille, and high-speed braille printers, such as the braille embosser shown in the photo, produce braille.
And easy-to-carry devices, such as the PDA in the photo, allow readers to store and read hundreds of braille books.

The Three Ps: Parents, Paraprofessionals, and Professionals

Three very important groups of people work together to help young children with visual impairments learn to read: parents, paraprofessionals, and professionals.

Parents are a child's first educators. Family members help set the tone for learning to read and provide the early experiences that are the foundation for reading. Parents continue to advocate the child as he progresses through school. When homework materials have print written above the braille, a parent who does not know
braille can review the materials and help the child. Parents who have copies of books and textbooks in print can read together with their child who reads braille and help with his homework. Parents can also find ways to learn braille, to better assist their children. Adopting these suggestions allows parents to provide encouragement and reinforcement of concepts and skills introduced by teachers, paraeducators, and other professionals. A mother of a first-grade student who is blind described parenting and educating this way:

Prereading and braille writing activities have exposed [my daughter] to many possibilities. Before long, we were labeling everything from a book to a door to a broom, so that she may know and understand what things are and mean.

Another parent tells about helping her child:

My daughter was the smallest thing I had ever seen. She was only twelve ounces at birth, the smallest surviving baby the hospital has ever had. Not a single person expected her to live through the night. But she did, and she kept
fighting and surviving. My little miracle left the hospital after five and a half months. My daughter suffered from retinopathy of prematurity with both retinas detaching themselves.

I grieved for everything I had expected and everything I felt my daughter was going to miss out on. But then I realized she will only miss out on the things I let her miss out on. We didn't fight so hard and for so long for that to happen, so I want to give her everything I possibly can. When my daughter is reading a book and gets stuck on a word, I want to be able to read it as well and help her out. I don't want her to miss out on anything.

Paraprofessionals (also known as aides or educational assistants) are likely to have day-to-day contact with a child. Paraprofessionals reinforce the concepts and skills introduced by the teachers, assist in producing braille materials, provide encouragement to the child and his family, and provide progress reports to professionals. The paraprofessional for the child who is
blind in a regular classroom has other tasks. He or she may adapt the materials such as "wall words" to be used in writing exercises, by making sure the child who is blind has these in braille. When the teacher reads aloud and children follow along, the paraprofessional ensures the child has his copy in braille. The paraprofessional seats the child who is blind with the other children, but always makes sure he has ready access to his braillewriter and other materials. If necessary, the child may need two desks to accommodate a braillewriter. Carol Fish, a paraprofessional for the Special Education District of Lake County, Illinois, says this about her work:

I get so much enjoyment from seeing a student read a simple book in braille and hearing the delight in her voice as she creates images in her mind for the pictures she cannot see!

Professionals include classroom teachers, teachers of the visually impaired (TVI), preschool specialists, and early intervention specialists (EI), among others. These individuals determine the concepts and skills to be introduced to the child. They provide training, support,
and feedback to the paraprofessional. Professionals determine the teaching approach for reading and writing, and they select the teaching materials. Professionals also provide instruction, encouragement, and feedback to the child and his family. A teacher of students with visual impairments says this about her work:

There is nothing more rewarding than seeing my little ones make the connections that lead to reading: from investigating textures to exploring patterns to the eventual discovery that those "dots" we expose them to have meaning, it is truly a wonder to behold.

The role of the TVI is especially critical for a child, whether he is integrated into a regular classroom or attends a special classroom or school. The TVI's role is not just to teach the braille code. In the ABC Braille Study, the TVIs tried to balance the inclusion of the child who is blind in the general reading environment with individualized instruction in the use of braille contractions. The effective TVI worked in the classroom with the teacher and paraprofessionals,
making sure the classroom is braille accessible and going over the reading activities to see what is needed to be adapted so the child who is blind could fully participate. The TVI may also schedule part of his or her time with the child in the classroom to teach reading, not just the braille code.

For a child in the regular classroom who is blind, it is vitally important that all the team members work closely together. That is because each individual has different training and skills, and each is with the child at different times during the day. A few of the ways the team works together are by:

- reviewing each week's objectives and activities and evaluating the student's progress
- making sure the classroom is braille accessible; that is, the child has access to the same printed materials as the sighted students
- allowing the child to become as independent as possible by decreasing the student's dependence on the paraprofessional in as many areas as possible
Braille Opens Doors

Numerous stories told by those who are braille users express the enormous difference the ability to read and write braille has made in their lives. They cannot imagine a life without braille, just as you cannot imagine your life without printed materials and the ability to write. Without braille, they know they would not achieve a good education. One individual says, "Braille has made my world a happier place." Another says that with braille, he can express himself and keep in touch with the world. Others list the myriad daily tasks they do with the help of braille, from reading instructions and labels to doing exams in school and reading braille music notation. Watch the video titled "Importance of Braille," which accompanies this course, to hear students describe how they feel about braille literacy.

Section Review

What are the main points of this section? Make your own list, and then compare it with the following:

- Children need to learn to read when they are young.
• Those who learn braille as children are more likely to become employed as adults.
• When a child's family has reasonably high expectations for him, he is more likely to succeed in becoming braille literate.
• Parents are a child's first educators. List ways a parent can be a good advocate for the child.
• Paraprofessionals have day-to-day contact with the child.
• Professionals include the classroom teacher, TVI, and other specialists.
• Each member of the educational team has different skills, so the members work together to achieve success.

Practice Activity
Consider the child you work with. Answer at least one of the following questions. Answering more will allow you to more fully consider the child's literacy development.
• At what age will he or did he begin to learn to read braille?
• What does the child's family expect in terms of his literacy?
• Who is actively involved in helping the child achieve literacy? Include yourself and all other professionals and nonprofessionals who work with him.

This section stressed the vital importance of literacy among those who are blind. It pointed out that attitudes help lead to success in achieving braille literacy. You read about the "three Ps," parents, paraprofessionals, and professionals who help children learn to read. And you learned how braille has changed people's lives and made everyday experiences as well as extraordinary ones possible. The remainder of this lesson presents information and activities for developing literacy in very young children who are blind.

**Emergent Literacy Experiences**

Eighteen-month-old George loves story time with his papa. Each evening while Mama prepares dinner, George sits in his father's lap and listens to a story. Papa always tells a story
about something they did during that day. "Today, George and Papa went to the park." George loves how Papa always includes movements and sounds with the stories. "We ran very fast," says Papa as he moves George's feet. "Then we sat on the teeter totter. It went up," as he lifts George high in the air, "and down," as he lowers George gently back to his lap. Then he says, "We slid down the slide. Wheee!" Papa's words, movements, and sounds combine to form a story in George's memory.

Learning to read the braille code is just part of helping blind children to become literate. As a professional or as a parent (the child's first teacher), you will help the child develop the preliteracy skills and experiences that are required for reading and writing. These preliteracy skills are also known as prereading skills, emergent literacy, and early literacy skills.

All children need early experiences to provide a foundation for understanding what they read. Children must be able to relate what they read to previous
experiences for reading to be meaningful. Literacy for the child who is blind or visually impaired is a gradual process that develops from experiences that are meaningful to him. This section discusses how to provide meaningful experiences to young children and help them become literate in braille.

The experiences and activities necessary for a child to be a successful braille reader include oral language development, concept development, and the development of motor skills. The ability to use and understand language and have a concept of the environment and his relationship to it allows a child to understand what he reads. Without those experiences and activities, a child might be able to decode, or identify, words, but he will not be able to comprehend what he is reading. Comprehension is the process of understanding what is being read. A child also needs to develop the motor skills that allow him to handle books and use various braille writing tools.

These skills and concepts develop during a period called emergent literacy. This period usually lasts from birth and continues as the child grows, plays, learns
about the environment, and has some experiences with books. Emergent literacy builds a foundation for learning to read and write. Many people play an important role in the development of these skills, including family members, educators, and paraprofessionals. During this period of development, it is important to provide positive experiences that make children want to learn to read and write.

**Oral Language Development**

A key component of emergent literacy is oral language development. Oral language skills include listening, paying attention, and developing an understanding of words and their meanings.

A sighted child may begin to develop an understanding of words simply by pointing to an object and having an adult name the object. The name of the object then becomes a part of the child's vocabulary. A child who is blind may not be able to begin that process. Therefore, as a family member or professional you can ensure that the child who is blind is exposed to new objects and concepts.
Help develop the child's vocabulary by clearly naming the many objects he encounters during the day. For example, name the different foods he has on his plate at snacks and meals. Identify the parts of the body at bath time. And use the words for the objects the child physically encounters outside, like sidewalks, fences, and plants. Children who can connect real objects and activities with words at a very young age typically have better literacy outcomes than those whose vocabularies are lacking.

Children who are blind need to be encouraged to move around in their environment. Encourage them to experience sounds, smells, and textures. Provide them with rich descriptions and feedback about what they are experiencing. For example, suppose a child finds a brush. Give him a description and provide experiences or activities with the object. You can say, "This is a hairbrush." Now he knows the name of the item. Then provide an experience. You can say, "Feel the bristles? We use these to make your hair smooth."

Provide another experience with the object; for example, you can continue the activity as follows: "Let
me help you brush your hair. Hold the handle, and move the brush like this through your hair. Can you feel it brush your hair? What does it feel like?" With children who are blind, constant verbal feedback enables them to develop oral language and vocabulary.

An understanding and awareness of his world gives a child a basic tool of literacy. By becoming familiar with different types of environments and activities, and by receiving continual verbal feedback as he explores new things, the child builds a basis of prior knowledge. He can then expand on his knowledge by reading more. Once a child learns about his environment and that things have names, he can then learn that these names can be written down. Without a basic concept of objects and activities, words have no real meaning.

One teacher of preschoolers who are blind used story hour to build their oral language in this way:

We work on a story for about a month; the children are here two to three times a week. The difference between just hearing the story the first time and what they end up doing at the end of the month is pretty remarkable. We

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*Lesson 1: Literacy and Essential Early Experiences*
have adapted a process to work on just listening [comprehension] at first; then we add a lot of characterization to the adults’ parts in the story. . . . We’re really looking at language at that time, a lot of nuances of sound and sound production if the children aren’t speaking yet. And then we gradually add in the tactile component as much as we can, using real concrete objects that are part of the story. We get into directed role-playing; so lots of movement is involved to connect meanings to the actions. We let them work into their own role-playing with each other. This is the fun part because the stories always change and go off on tangents. It’s a delight to see what the kids do with that. (From K. Erickson and D. Hatton, May 2007, "Expanding Understanding of Emergent Literacy: Empirical Support for a New Framework," AFB Journal of Visual Impairment and Blindness, pp. 267–268.)

To develop the richest oral language in a child who is blind, provide him with a wealth of different experiences and activities, making sure to give
continual oral feedback about these as they occur. Activities include:

- daily living skills, including eating, dressing, and bathing
- helping in the kitchen to make a sandwich, bake cookies, or find vegetables
- helping with daily household chores such as making a bed, sweeping, dusting, washing dishes, and laundering clothes
- helping in the garden to sow seeds, pull weeds, and pick flowers or vegetables
- doing or making things together, such as creating an art project or brushing the family pet
- taking part in rhymes, songs, actions, and finger plays; following directions; identifying sounds and their meanings; listening to and answering questions about stories told or read
- taking various trips to places within the community, such as stores and restaurants
- playing games at home
- exploring nature, especially where live animals can be petted
- traveling or visiting relatives and friends
• listening to and handling books
• experiencing family traditions, such as holidays
• exploring the arts
• using different forms of transportation, such as bus, train, car, and possibly air travel

Concept Development

The oral language activities listed previously also provide opportunities to learn basic concepts. The area of concept development is a very important one for children who are blind. Books contain words about objects, animals, plants, people, and actions. But if the child has not felt any animals or heard the sounds they make, how will he really understand what those are when he hears someone read a book about animals or when he sings a song about Old MacDonald and his farm? How will a child understand the word laundry when dirty clothes seem to get magically clean as they disappear into the hamper and reappear in the closet? How can he grasp the concept of leaves falling from trees, rain, warm sun, mud, and sand, if he has not had at least some outdoor experiences? How will the child really understand what spatial concepts like in, out,
over, and under are if he has not first experienced those with his own body and then with objects?

Some important concepts to introduce to the child who is blind include:

- body and space awareness, including identifying body parts, simple concepts of up/down, over/under, top/bottom, front/back, left/right, and near/far
- the ability to identify and describe objects, including labeling, using concepts such as same/different, big/little, wide/narrow, thick/thin, hard/soft, empty/full, open/closed, heavy/light, and few/many
- the ability to recognize patterns and number concepts such as some/none, few/many, more/less, counting to ten, and sequencing (first, second, third). Use string beads or use blocks to make patterns. Place and remove items in a muffin tin to reinforce patterns and one-to-one correspondence.
- an awareness of time, including yesterday, today, and tomorrow. Also relative time, such as
earlier/later. Introduce pegboards to reinforce number relationships.

- a realization that braille "bumps" have meaning: they can identify, label, name, and tell a story.

Read how Melanie Linford, an early interventionist, provided a rich concept-building experience for her student:

Before a field trip to the pumpkin patch with his class, David, a two-and-a-half-year-old boy who is blind, needed to have some experiences with pumpkins. I brought pumpkins to class so he could explore them. We carved one and felt the insides. I also explained what a hay ride is like. He loved the texture books I had made about tractors. When I played a recording of the sound a tractor makes, he jumped up and down in anticipation of riding on a real tractor.

A lot of time and effort goes into teaching David about the concept of pumpkins and all the surrounding activities before the actual event. We use all four conditions: hands-on, observing others reading and writing,
meaningful conversations, and access to literacy materials to teach David about pumpkins and tractors long BEFORE the actual field trip.

**Developing Motor Skills**

Motor skills must also be developed so a child who is blind can eventually handle books, move his fingers smoothly over the pages, turn pages, and use various braille writing tools.

To help develop motor skills, have the child do actions such as the following while you describe them:

- Use movements such as start/stop, open/close, sit/stand, and push/pull.
- Sit and stand independently with good head control. Encourage the child to imitate good posture by feel. Good sitting posture and head position are important for reading and writing braille.
- Have the child reach for objects and develop a systematic method to search for objects within reach.
• Use busy boxes, nesting toys, stacking toys, and other manipulative toys to develop hand strength and fine motor skills, including grasp/release, twist/turn, open/close, and stacking.
• Develop upper body muscles: shoulder, arm, hand, and fingers.
• Coordinate hands movements. Have the child do tasks in which both hands do the same motions and tasks in which each hand does different motions simultaneously.

Playtime is a great opportunity for literacy activities. What child doesn't like exploring his mother's purse? Trying on an adult's shoes? Playing with soap or shaving cream? You can have the child explore the contents of a purse while you make up a story about the contents. The child can try on an adult's shoes or
clothing while pretending to get ready for work. The following illustration is a page from a book titled *Jennifer's Messes*, in which Jennifer accidentally spills items from her mother's purse. The items are molded plastic shapes (thermoforms) of the objects themselves.

To help prepare a child to track braille, encourage activities that promote moving from left to right. Some suggestions include the following:

- Place pegs in a pegboard in a left-to-right progression.
- Roll a toy car or a ball from left to right.
- Place objects in a line. Have the child move from left to right, and discuss each object that he encounters.
- Place small objects in a twelve-muffin tin. As the child moves across each row from left to right, encourage him to identify each item.

The next lesson provides more information about braille-enriched activities as part of the next stage of emergent literacy.

**Section Review**

What are the main points of this section? Make your own list, and then compare it with the following:

- Children need three major abilities to become literate: oral language, concept development, and motor skills.
- Decoding words is not the same as comprehension.
- Oral language skills are developed when adults use lots of feedback as a child explores his environment.
- Concepts are best developed when children experience them physically.
- Motor skills can be developed by having children perform different physical activities.
Practice Activity

Consider the child you work with. Create a list of activities and experiences appropriate for the child's age, ability, and size that will help him or her develop the oral skills, concepts, and motor skills needed to become literate in braille. If possible, share your list with other members of the child's educational team.

Summary

This lesson discussed the importance of braille literacy and emergent literacy activities. The next lesson introduces more prereading experiences.
Assignment 1

For general information on completing assignments, refer to the Getting Started instructions. Then start this assignment by giving your full name, address, and phone number. Also list the name of this course, Assignment 1, your instructor's name, and the date. Be sure to include the question number along with each answer. This assignment is worth 100 points.

Provide a brief response (a list or short paragraph) for each of the following items (10 points each):

1. Using information from this lesson, briefly explain the connection between literacy and success in school and later in life.

2. List characteristics of families with positive attitudes toward literacy achievement for their child who is blind.

3. Is using audiobooks just as good as learning to read braille? Explain why or why not.

4. Is braille obsolete? Explain your answer, providing examples.
5. Provide possible reasons for frequent consultations between a child's paraprofessional, teacher, and parents.

6. Explain in a paragraph or two how the life of a child you work with will be enhanced by the ability to read and write braille.

7. In a few sentences, clarify why simply decoding words is not the same as reading comprehension.

8. List at least five different ways to develop oral skills in a young child.

9. List at least five different types of concepts that are important to a child's ability to become literate.

10. List at least five different types of motor skills to develop in a child who is blind.

Items 11 through 14 are not graded. They provide an opportunity to share information about your personal situation and reasons for taking this course. In this way, your instructor can be as helpful to you as possible and you can get the most benefit from the course.

11. Describe the child or children who will be learning to read braille. What is the child's age? Is the child
able to see magnified print? Colors? Movement?
Does the child have other learning disabilities?
12. Are you a parent, paraprofessional, or professional?
Describe your role in teaching the child to read.
13. How would you describe your uncontracted braille
    skills? Do you know contracted braille?
14. What reasons do you have for enrolling in this
    course? Include your goals or expectations.

Once you have completed this assignment, send it to
your instructor. Then begin Lesson 2: Emergent
Literacy Experiences.