

Patrick Graham, PhD, is the department chair for the Master of Science in Secondary Education at the Rochester Institute of Technology/National Technical Institute for the Deaf. His interests are in ensuring multicultural and multimodal education equity for young deaf and hard of hearing children.

Raschelle Neild, PhD, is accreditation coordinator at Gallaudet University in Washington, D.C. Her interests are teaching deaf and hard of hearing learners with additional disabilities and teacher attrition and retention in special education.

Language, Deaf and Hard of Hearing Youngsters, the IEP... and a Pathway to Literacy

By Patrick Graham, Raschelle Neild, and Jennifer Gentzke

The Individualized Education Program (IEP), the child's plan to ensure specialized instruction and services, can help deaf and hard of hearing children develop critical literacy skills. Deaf and hard of hearing children are entitled to an IEP when they turn 3 years old, and parents and teachers should begin to incorporate foundational literacy skills into the IEP immediately.

Over the past two decades, policy makers, researchers, and educators have focused on understanding and improving reading outcomes, especially important as reading—literacy—impacts all areas of academic and lifelong success (Lederberg et al., 2014). One of researchers' most important findings has been the importance of early foundational skills. The National Early Literacy Panel (2008) notes the importance of children having these foundational skills prior to entering elementary school.

Traditionally, literacy starts with decoding, which is “the ability to apply knowledge of letter-sound relationship, including knowledge of letter patterns to correctly pronounce written words” (Moats, 2024). Once students have decoding skills, they transition to mapping, which means words are memorized through reading and then stored in long-term memory (Ehri, 2014). For hearing students, these two fundamental strategies, decoding and mapping, begin with accessing the phonological code of English. Understandably, deaf and hard of hearing children may find accessing decoding and mapping through audiological means to be

Photos by Matthew Vita, Laurent Clerc National Deaf Education Center



Above: Young children learn social skills and language through play.

difficult; they may not be able to fully access the phonological code for decoding printed English. Therefore, literacy goals on the deaf or hard of hearing student's IEP should include specialized strategies, such as visual phonics, fingerspelling, explicit instruction, contextual clues, and whole word recognition. Without this additional and specialized education, skills required for early literacy development for deaf and hard of hearing children may continue to be a challenge and their future academic development compromised (Kelly & Baarac-Cikaja, 2007; Kyle & Harris, 2011). Below are some literacy activities to include in the child's IEP.

For the Youngest Children Play and Assessment

For the very youngest children, parents and teachers want to make sure that two seemingly unrelated activities are incorporated: play and assessment. Infants and toddlers—hearing, deaf, and hard of hearing—learn a significant

amount of language through play. For deaf and hard of hearing children, play should include purposeful language modeling.

Play is an integral part of childhood. When infants and toddlers play together, they develop a variety of social skills, such as sharing, communicating, arguing, and negotiating. Joined by a teacher, parent, or other language model—who engages and interacts with the child—playtime also becomes a rich opportunity to learn language naturally.

Playtime should include meaningful language that children connect to objects that they see and touch. It doesn't matter if this language occurs through sign language or spoken language as long as the language is fully accessible to the child. Children thrive on incidental language and learning through interactions with peers and caregivers. This

Jennifer Gentzke, MEd, is coordinator of clinical experience and a lecturer for the Master of Science in Secondary Education at the Rochester Institute of Technology/National Technical Institute for the Deaf. She has over 20 years of experience as a teacher of the deaf and literacy specialist focusing on best practices in developing reading and writing skills for deaf and hard of hearing children.

The authors welcome questions and comments about this article at pjgnmp@rit.edu, nena.neild@gallaudet.edu, and jagnmp@rit.edu, respectively.



Left: Purposeful language modeling is an important part of children's language skills development. **Below:** When exploring new texts, students benefit from pre-reading vocabulary, identifying and signing new words, self-correction, and answering questions.

up, playing indoors and outdoors, and narrating and discussing life experiences. All of this increases literacy opportunities in the school.

As Students Progress Language and Goals Evolve

As students progress and assessment continues, language and learning goals evolve and become more specific. Teachers and students become aware that reading is not just signing the words as they appear on the page but also understanding and showing understanding by responding to questions and discussing the text.

Foundational literacy goals are helpful as students progress through elementary and intermediate grades. Goals may be set before students start reading and additional goals set and achieved as students make their way through their assignments. These goals—outlined at various stages of the process—help students advance their skills:

- **Pre-reading ... Discuss new vocabulary—***When given selected*

language occurs, for example, as children share toys, ask for help, settle disagreements, and seek explanations. When language is shared and understood, children make meaning and map concepts with words in their memory. According to Westby & Wilson (2017), the linguistic knowledge that a child gains through play can become the child's foundation for literacy. Lack of opportunities to interact with parents, teachers, or friends who serve as language models can prove detrimental not only to the development of the child's language but also to that child's cognitive and social-emotional development (Westby & Wilson, 2017).

An additional factor—accurate assessment—across all areas is critical in young children attaining foundations in language and literacy. Assessing the child's language supports educational placement, curriculum development, and instruction as well as IEP goals (Neild & Fitzpatrick, 2018). Results of assessment allow educators, interpreters, families, and adult language models to communicate with and instruct

individual students and to meet each student on their level of language use (Beal, 2024).

Parents and family educators can adjust the goals to challenge language milestones and increase incidental language opportunities. As Batamula et al. (2020) emphasize, language planning should include at-home activities such as interacting with the child in waking



words, phrases, and sentences from an instructional-level text, students will point to the words and sign them with 90% conceptual accuracy. This activity allows exposure to vocabulary—and vocabulary concepts—prior to reading a text. By previewing the text’s words, phrases, and sentences and focusing on conceptually accurate signs, student comprehension and reading fluency improve.

- **Word recognition ... Identify and sign new words**—*Students will identify and accurately sign five new vocabulary words per week in isolation and in the context of an instructional-level text with 90% accuracy.* Identifying the words in isolation is a good way to document student progress in learning vocabulary. However, providing the correct sign for a word does not guarantee that the student is understanding. Students should be able to make connections, identify, and sign the words accurately in the context of their instructional reading.
- **Self-correction ... Encourage students to correct themselves**—*While reading a text, the student will recognize when a sign does not match a word’s meaning by stopping and rereading the word, phrase, or sentence with minimal prompting and with 85% accuracy.* When students provide a conceptually incorrect sign—such as using the sign *can* that means *ability* when the text reads *put the paper in the can*—stop the student. Allow the student to self-correct by going back to the text and re-reading it.
- **Pose questions**—*During and after reading, students will be able to answer three to five “Wh-” questions, through American Sign Language (ASL) or writing, with 90% accuracy.* This goal can be broken down into benchmarks to focus on specific *Who, What, Where, When, and Why*

Goals may be set before students start reading and additional goals set and achieved as students make their way through their assignments.

Teachers provide students with visual examples of the type of sentence pattern they need for a specific writing task. Focusing on a targeted writing pattern can help improve skills. For younger students, introduction and building on a *Noun + Verb* pattern (e.g., *The boy reads*) can be beneficial. As students learn to write, it is important to give them constructive and positive feedback on the structure of their sentences. Encourage students to use symbols, a

Below: Asking “Wh-” questions of students is beneficial in helping them focus on the text in order to achieve language goals.



questions. Structured instruction of “Wh-” questions and the types of responses expected for each would be beneficial before expecting students to focus on this goal.

Writing Goals

Writing can be difficult for anyone. Students may know what they want to write, but they may feel unsure of how to put their ideas into written English. Here are some ideas that may help:

- **Practice sentence patterns**—*When given a model of a sentence pattern (e.g., Bobby eats yummy candy), students will write at least three sentences using the pattern to describe a picture or experience with minimal support and with 90% accuracy.*

picture, or other visual markers when they struggle with spelling. This will help to increase motivation, stamina, and fluency in their writing.

- **Pre-writing strategies**—*Students will independently complete a graphic organizer, including relevant details, and use this to create a narrative, expository, or persuasive piece of writing.* Use graphic organizers, such as thinking maps, sequencing charts, Venn diagrams, or brainstorming webs. In pre-writing, this strategy allows students to support development of their thoughts and ideas. The graphic organizer can model a key idea and provide structure for sequencing thoughts. Sequencing charts help organize

Students should be guided in how to identify the main idea and supporting details. Summarizing should be done in the student's primary language; allowing students to summarize what they have read in their primary language gives them the opportunity to comfortably share what they have learned without the added stress of writing answers.

main ideas and key details. Venn diagrams help classify ideas into like and unlike categories. Brainstorming webs—where the main idea is in the center and the details branch out in lines—help connect supplemental details to the main idea.

- **Organization**—*Students will use video to make a recording to help organize their ideas, including details, and create a structure to begin writing.* Video allows students to express what they want to write by signing it first, organizing their thoughts and ideas in a language in which they

Right: When children develop a strong foundation in language from a young age, they are able to build on and grow these skills throughout their K-12 experience.

may be more comfortable. The video then functions as a guide, allowing them to make smoother connections to and transitions in written English. It is key that the teacher review the video prior to writing to ensure the student incorporates the required components and meets the expectations of the assignment.



Incorporating ASL

The following strategies may be helpful in bilingual classrooms:

- **Activate background knowledge**—*Before reading an instructional-level text, students will analyze and describe the picture(s) using at least three descriptors with relevant details.* Discussing what students know regarding a text before they start to read it will strengthen comprehension. Take time to look at the pictures and have students describe what they see in order to make connections to the English text while they are reading.
- **Encourage summarization**—*When presented with an instructional-level text, students will independently and accurately summarize the main ideas and key details with 80% accuracy through ASL and written English.* By developing goals related to summarizing, students can more actively engage in reading to gain a deeper understanding of the text. Students should be guided in how to identify the main idea and supporting details. Summarizing should be done in the student's primary language; allowing students to summarize what they have read in their primary language gives them the opportunity to comfortably share what they have learned without the added stress of writing answers.
- **Ask students to infer and predict**—*When presented with an instructional-level text, the student will make inferences or predictions based on implicit and explicit information.* Making inferences requires the reader to go beyond the literal meaning of the text. It combines information from the text as well as background knowledge from the student. Examples of inference can include making predictions, understanding a character's feelings or actions, and making connections.

For younger students, taking time to look at the pictures, talk about a character's facial expressions or make predictions for what will happen next can prepare them for language they will see in the text and increase comprehension.

For all students, it is important to discuss what they read. As teachers facilitate the discussion, give students the opportunity to do the following:

- **Make connections to their own lives**—Reading, writing, and language goals do not only need to be focused on in English Language Arts classes; they should be applicable to all areas of experience throughout the day.
- **Apply what they read to their everyday life and learning**—Students should be able to connect their learning to their everyday lives; they should also be able to apply what they read to their continued learning.
- **Develop their purpose for learning**—Goals should be focused on students' area(s) of need for language and literacy. When they are young, learning should be immediately applicable to their lives. As they get older, they should be aware of the purpose of learning. When students know why they are learning, it can increase motivation.

Many deaf and hard of hearing students struggle to develop a strong foundation in language and reading (Qi & Mitchell, 2012). Effective education in language and literacy requires collaboration among educators, general education and special education teachers, speech therapists, and families from the earliest days of the child's life. By age 3, these language and literacy goals should be specified within the child's IEP. Clear goals within the IEP can foster literacy and language and ensure children develop early literacy skills prior to entering elementary school.

As students progress, these literacy

goals progress with them. Goal setting and achievement are essential as students continue to build on their skills and progress successfully through school.

By working together, parents and

teachers can support deaf and hard of hearing preschoolers in the first steps toward language and literacy and continue their support throughout their children's K-12 education.

References

- Batamula, C., Kite Herbold, B. J., & Mitchiner, J. (2020). Family language planning with deaf and hard of hearing children: Fostering multilingual development. *Odyssey, 21*, 8-13.
- Beal, J. S. (2024, January). American Sign Language assessments for deaf children. *Journal of Deaf Studies and Deaf Education, 29*(1), 102-103. <https://doi.org/10.1093/deafed/enad027>
- Ehri, L. C. (2014). Orthographic mapping in the acquisition of sight word reading, spelling memory, and vocabulary learning. *Scientific Studies of Reading, 18*(1), 5-21.
- Kelly, L. P., & Barac-Cikoja, D. (2007). The comprehension of skilled deaf readers: The roles of word recognitions and other potentially critical aspects of competence. In K. Cain & J. Oakhill (Eds.), *Children's comprehension problems in oral and written language: A cognitive perspective* (pp. 244-280). New York: The Guilford Press.
- Kyle, F. E., & Harris, M. (2011). Longitudinal patterns of emerging literacy in beginning deaf and hearing readers. *Journal of Deaf Studies and Deaf Education, 16*(3), 289-304.
- Lederberg, A. R., Miller, E. M., Easterbrooks, S. R., & McDonald-Conner, C. (2014). Foundations for literacy: An early literacy intervention for deaf and hard-of-hearing children. *Journal of Deaf Studies and Deaf Education, 19*(4), 438-455.
- Moats, L. C. (2024). *Speech to print: Language essentials for teachers* (3rd ed.). Baltimore, MD: Paul Brookes Publishing Company.
- National Early Literacy Panel. (2008). *Developing early literacy: Report of the National Early Literacy Panel*. Washington, DC: National Institute for Literacy.
- Neild, R., & Fitzpatrick, M. (2018). Overview of assessment of deaf and hard of hearing students. *Psychology in Schools, 57*(3), 331-343.
- Qi, S., & Mitchell, R. E. (2012, Winter). Large-scale academic achievement testing of deaf and hard-of-hearing students: Past, present, and future. *Journal of Deaf Studies and Deaf Education, 17*(1), 1-18. <https://doi.org/10.1093/deaf-ed/enr028>
- Westby, C., & Wilson, D. (2017). Using pretend play to promote foundations for text comprehension: Examples from a program for children who are deaf and hard of hearing. *Topics in Language Disorders, 37*(3), 282-301.