

Comprehension Instructional Strategies

Karen Erickson & Vicky Roy

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Shared vs. Guided Reading



- Shared reading involves:
 - Interaction with student on (almost) every page.
 - Changing purposes/focuses during single reading session.
- Guided reading involves:
 - Before, during, and after activities
 - Reading/listening for extended sections of the text for a single purpose.

Creating Communication Supports for Shared Reading



- Traditional boards have:
 - highlighted labeling or describing what is in the book.
 - included phrase-based comments.
- Recent efforts focus on:
 - supporting students in making a personal connection with the book.
 - developing core vocabulary concepts.
 - supporting recursive learning over time.

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Example Phrases often supported during book sharing:

"Turn the page, please"
"Read it again!"
"I can't see"
"I like that story. / I don't like that story"
"Let's read"
"That's scary / funny / silly!"
"Wait! Give me a minute."
"Why did he do that?"
The repeated line for the story

Supporting Personal Connections

- What are the components you believe will be most interesting to the student?
- What are the components you believe you can connect with the student's life experiences?
- What would a student without disabilities say while reading that book with an adult?
- What does the family believe will be most salient in the book for the student?
- How can we capture the core of these comments in our vocabulary selection?

Supporting Core Vocabulary Concepts

- Develop a plan for vocabulary you plan to teach across the school year.
 - Words should be powerful for communication.
 - There should be a cross between these words and the words some students will learn to read and write.
- Words are used as appropriate in shared reading across the year (not to mastery with a single book).

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Supporting Recursive Learning Over Time

Each new shared reading experience is a chance to introduce new concepts/vocabulary while re-teaching concepts/vocabulary taught previously.

Guided Reading


What will you do
Before-During-After
Reading?

Before-During-After

- **Before Reading:**
 - Step 1: Build or Activate Background Knowledge
 - Step 2: Set a Purpose for Reading
- **During Reading:**
 - Step 3: Read or Listen to the Text
- **After Reading:**
 - Step 4: Complete a Task
 - Step 5: Provide Informative Feedback

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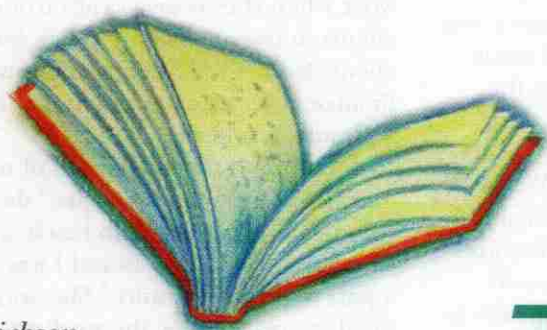
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Guided Reading Purposes

- Sequence Events
- Describe the:
 - main character
 - setting
 - problem
- Identify Causes and/or Effects
- Compare/Contrast
- Relate to personal experience

Reading Comprehension in AAC



by Karen Erickson

The ability to read, specifically to read silently with comprehension, has a positive impact on school success, employability, independence, and autonomy, as well as providing a means for lifelong learning, entertainment, and introspection. For people who use augmentative and alternative communication (AAC), this ability carries each of these benefits, as well as enhanced face-to-face communication and the added ability to participate in asynchronous communication.

Learning to read silently with comprehension is typically a daunting process for persons who use AAC. Although many successfully learn to read words in isolation and understand text when someone reads it to them, estimates are that no more than 10% can read with comprehension above a second-grade level. Our efforts to understand these difficulties suggest that the explanation is complex and extends well beyond the current emphasis on phonemic awareness and phonics dominating most current discussions of reading.

Silent Reading Comprehension

To understand the complexity of the explanation, it is important to understand silent reading comprehension (SRC). Successful SRC requires integration of skills, understandings, and processes across word identification (which involves decoding and automatic word recognition), whole-text print processing (which requires the integration of a number of processes during silent reading of connected text), and written language comprehension (which includes knowledge of written language text structures and knowledge of the world).

• Word Identification

Reading instruction for persons who use AAC must have a dual emphasis on automatic word identification and phonics or decoding skills. The combination of the two is required for successful SRC, as readers must be able to effortlessly

recognize most words they encounter while simultaneously having the skills to figure out unfamiliar words. Comprehension is adversely affected when instruction emphasizes only one skill. When readers are not taught skills to figure out unfamiliar words, they are forced to skip or guess words. When readers are taught to stop and sound out or consciously think about every word they encounter, they are expending cognitive resources that would otherwise be devoted to comprehension.

• Whole-Text Print Processing

In most discussions of SRC, whole-text print processing is not even considered. Recent attention to fluency in reading demonstrates an increased understanding of the role of print processing in SRC, but fluency is just one part of whole-text print processing. The three parts of it that appear to present the greatest challenges for AAC users are inner voice, eye movements, and projecting prosody.

Inner voice is required to hold words in working memory long enough to process text at the sentence level and beyond. AAC users have reported that they are aware of and able to use an inner voice. There is, however, some evidence that in the absence of intervention, inner voice does not develop until later childhood. Making AAC users aware of their inner voice and teaching them to use it in reading, particularly in beginning reading, is important to successful SRC.

Eye movements present a challenge for many persons who use AAC, particularly those who also experience severe physical impairments (e.g., spastic cerebral palsy). Eye movements in reading involve a series of saccadic (jumping) movements followed by fixations. In addition, they require regressions within a single line and back as far as a page or two when comprehension breaks down. Left-to-right tracking is a minor component of these eye movements. Training and mechanically controlling eye movements during reading does not lead to improvements in comprehension. In fact, this type of training in isolation has been shown to make reading quite difficult.

Projecting prosody, clearly a component of fluent oral reading, plays an important role in SRC as well. The ability to gain the prosodic structure of a written text requires attention to syntax and grammatical markers. The use of inner voice in projecting prosody is particularly important in achieving successful SRC for persons who use AAC.

All of the processes involved in whole-text print processing can only be developed through successful reading of meaningful, connected text. Teaching these skills in the absence of text will not transfer to successful SRC. Whole-text print processing is an area that presents a particular challenge as we attempt to ameliorate the reading comprehension difficulties of persons who use AAC, since there is little we can do other than provide opportunities to read easy, meaningful, connected text.

Although it is commonly recognized that written language comprehension is the central component of successful silent reading comprehension, it is an area that receives little attention in instruction and intervention.

• Written Language Comprehension

Although it is commonly recognized that written language comprehension is the central component of successful SRC, it is an area that receives little attention in instruction and intervention. Written language comprehension can be taught through reading or listening and involves two related yet distinct knowledge areas: knowledge of text structures and knowledge of the world. Both of these must be addressed systematically in intervention and instruction if our goal is successful SRC.

Knowledge of text structures recognizes the differences between spoken and written language. At minimum, the use of pronouns, features of different text types (e.g., narrative vs. expository), and relationships across sentences must all be accounted for in comprehending written language. Without experience and familiarity with a variety of text structures, readers and listeners, whether or not they use AAC, will experience difficulty comprehending written language.

Knowledge about the topics or subtopics included in a text is required to comprehend written language, regardless of whether it is read or heard. Readers and listeners must have and be able to access knowledge of the world in order for comprehension to proceed. Single receptive vocabulary, often called "meaning vocabulary" by educators, is the most widely recognized component of knowledge of the world that is required for successful SRC.

Targeting Written Language Comprehension

Like most educators, I have an arsenal of approaches I can call upon to address word-reading difficulties, and I know how to locate the easy-to-read materials required to support whole-text print processing. However, like most educators, over the years I've needed the skill

Illustration by Sarah Hollander

See *Reading Comprehension* page 8

and expertise of speech-language pathologists to help me understand language comprehension and how I could address it.

There are multiple methods that can be used to build written language comprehension, each of which requires the use of meaningful, connected text that can be listened to or read. The first step is selecting a text that carries meaning and is appropriately leveled to the reader's or listener's ability. Beyond this step, language comprehension instruction will always involve before-, during-, and after-reading interventions.

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• Before Reading

Building or Activating Background Knowledge. Before reading, it is important to build or activate background knowledge and set a clear purpose for reading or listening. Typical before-reading activities include brainstorming vocabulary or recalling personal experiences related to the topic at hand. The following example illustrates the type of difficulties many AAC users encounter with this type of activity:

The teacher begins, "Our weekly newspaper has a feature article about Mr. Rogers. Before we begin reading it, tell me what you know about Mr. Rogers." The children immediately begin recalling information about the television show, "Mr. Rogers' Neighborhood." They talk about his sweater, changing into his sneakers, the train, and all of the details they can recall from seeing him on TV. Among the children, one boy sits quietly staring at his

AAC device. He knows that at one point he had a message in his device about the trip he took to the PBS studio in Pittsburgh where "Mr. Rogers' Neighborhood" was filmed. He also knows he had a message telling others about the letter he received from Mr. Rogers and the autographed book he loves. Unfortunately, he can't remember where any of those messages are, or if they are even still programmed in his device. So, he generates a novel message pulling together a few words. When his teacher acknowledges him he says, "My friend." Not knowing about the boy's relationship with Mr. Rogers and missing a potentially powerful connection to experience for the entire class, the teacher replies, "I felt like Mr. Rogers was my friend as well. I'll bet lots of you did."

Difficulties such as this can be avoided with carefully planned vocabulary selection and AAC systems. Since background knowledge plays such a critical role in successful written language comprehension, every lesson should begin with an opportunity to build or recall background knowledge relevant to the text to be read. As such, AAC systems must be designed with the intent of supporting students in accessing their memories and experiences for more than a few weeks.

There is no single way to organize an AAC system to support this access to background knowledge. One adolescent girl uses a calendar

system to organize the messages that convey her life experiences. An adolescent boy uses categories to organize his. Another young girl has a scrapbook, much like the memory books used with adults with Alzheimer's, to represent the events in her life in a chronological order. In each case, these students can potentially access any message or memory to share with others.

Another issue related to background knowledge is text-specific vocabulary. Before-reading activities often involve vocabulary instruction. One seventh grade student had the new vocabulary words and definitions programmed into his device almost daily. Like many teams, his went to great lengths to make sure every new word was programmed into his device for use before, during, and after reading across the curriculum. He did have access to all the specific vocabulary he encountered; however, he had mixed success using the text-specific vocabulary, and it was rarely generalized for use elsewhere.

An alternative strategy ensured that he learned the new vocabulary and had opportunities to link it to his existing vocabulary. In the alternative strategy, the new vocabulary was introduced during the before-reading activity, and, instead of programming the specific vocabulary in the device, the boy was asked to find related words that were already in his AAC device. For example, his seventh grade social studies textbook included the word "escarpment." Originally, the boy would have selected the specific vocabulary

Comprehension Purposes and Tasks

Purpose: "You listen/read so that you can show me which of these five words best describe the main character in the story."

Task: Select from five words printed on separate index cards.

Purpose: "You listen/read so that you can put the story events I've written on these sentence strips in the correct order. I'll read them to you before you begin."

Task: Select in sequence from the sentences printed on separate sentence strips.

Purpose: "You listen/read so that you can compare and contrast the two main characters in the story. You'll tell me which of these words describes only one and which word describes both characters."

Task: Select from adjectives printed on separate index cards.

Purpose: "You listen/read so that you can tell me the cause/effect relationship that occurs in this story. You'll tell me which of the events I've written here best describe what happened (effect) in the story. Then you can tell me which of the events I've written here best describes the cause (what made it happen) of that event."

Task: Select an effect from a list of causes printed on separate sentence strips and displayed in a column on the left. Then select the corresponding effect from a list of effects printed on separate sentence strips and displayed in a column on the right.

Purpose: "You listen/read so that you can select from these choices the one that you think is the best story summary."

Task: Select from three or more summaries printed on separate pieces of chart paper or separate sections of the classroom whiteboard.

Purpose: "You listen/read so that you can match the appropriate answer with each of the questions."

Task: Select a question from a list of questions printed on separate sentence strips and displayed in a column on the left. Then select the corresponding answer from a list of answers printed on separate sentence strips and displayed in a column on the right.

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word and prestored definition on his device. Using the new approach, he selected five or six related words that were already in his device as a part of his core vocabulary.

When the teacher asked the students to define escarpment, he selected big, hill, safe, close, and fight. His response demonstrated his general understanding of the formal definition of the word (in this case, "steep face near a fortified place, cut away to prevent hostile approach"). Furthermore, he connected the new word with his existing vocabulary, a process that led to an ever-increasing semantic network upon which new vocabulary could be added meaningfully. Along with brainstorming by selecting existing vocabulary related to a given topic, this approach to background building for students who use AAC has been particularly successful and has led to improvements in the use of existing vocabulary for face-to-face communication.

Setting a Purpose. The second instructional step before reading is to set a purpose for reading or listening to the text. The purpose should be clearly stated ("read this so that you can..."), focus the student while reading, and encourage processing of the entire text or large sections of text. The purpose should be tied directly to the background building that was done and a task that will be completed after reading. Once the purpose has been stated, the longest portion of the entire written comprehension lesson, reading or listening, can begin.

• During Reading

During reading, students can improve their written language comprehension through listening or reading. Often listening is the mode of choice for persons who use AAC, given the physical demands of holding a book, turning the pages, and so on, but caution should be taken to ensure that written language comprehension is truly acquired.

One adolescent girl who used AAC taught us this lesson. Almost all of her written language comprehension instruction was provided through listening. In spite of years of opportunities to listen to and comprehend written language coupled with word identification and whole-text print processing instruction, this girl struggled. Eventually,

the team discovered that what they thought was listening comprehension had actually turned into short bursts of listening to text followed by in-depth oral explanations of what had been read. The result was that the girl had stopped attending to the oral reading of the text, waited for the oral explanation, and missed out on an opportunity to develop her knowledge of text structures.

• After Reading

After reading, students who use AAC should be presented with tasks to complete that are directly related to the purpose that was set prior to reading. See the sidebar on page 8 for examples of numerous tasks that can be completed without sophisticated AAC use or the ability to speak.

Finally, after reading, informative feedback should be provided that serves to build cognitive clarity by identifying clearly what led to success in completing the task or what might be done next time to achieve greater success in completing similar tasks. Both the learner and the teacher should be involved. The goal is not just completing the task correctly, but understanding how to complete similar tasks successfully in the future.

Starting Today

Reading silently with comprehension requires the integration of

numerous skills, processes, and understandings. It will be some time before we understand why so many people who use AAC experience difficulty learning to read silently with comprehension, but we can begin our attempts to ameliorate the problem by working together to address areas that we know are important in successful SRC.

SLPs can play a particularly vital role in supporting written language comprehension instruction for students who use AAC. They bring to the table an understanding of language comprehension that is not part of the training received by most educators. Through the application of their knowledge of language learning in general within the context of reading or listening to connected text, SLPs can make a significant contribution to successful silent reading comprehension for people who use AAC.



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■ Produced by Barry Guitar, Ph.D., and Carroll Guitar, M.L.S., University of Vermont; in collaboration with Edward G. Conture, Ph.D., Vanderbilt University; Jane Fraser, The Stuttering Foundation; Hugo Gregory, Ph.D., Northwestern University; and Peter Ramig, Ph.D., University of Colorado-Boulder.

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Comprehension Lessons that are Accessible to AAC users without Sophisticated Systems

All reading and listening comprehension lessons should begin with a before reading activity that reviews important meaning vocabulary, preteaches two or three words that may be difficult to decode, and relates the content or task at hand to the student's background knowledge and experience. The final thing that should happen before reading is that a purpose should be set. [Note: While this step is important, the before reading time should be significantly shorter than the time actually spent reading or listening.]

Background Instruction	Purpose	Task
Make sure the student knows how to sequence. It is not a skill children learn without instruction. You could teach sequencing using every day schedules or the meals of the day. You'll need lots of examples and non-examples for the children to understand.	"You listen/read so that you can put the story events I've written on these sentence strips in the correct order. I'll read them to you before you begin." [sequencing]	The teacher writes the events on sentence strips. After reading, the student puts the strips in the correct order.
Begin by asking the child to generate words that could describe someone (using whatever vocabulary is available on the device not words programmed specifically for this activity). If the child does not have access to this type of vocabulary, simply introduce the child to 10-12 words that you have written on word cards. Ask the child to determine which words describe himself/herself. Then ask which words describe you or another important person. Model this process using the words and a third person if needed. Be sure to include both examples and non-examples.	"You listen/read so that you can show me which five of these words best describe the main character in the story." *also works with setting [characters and setting]	As the child generates words, the teacher writes them on word cards. After reading, the child sorts the cards into those that do describe the character (or setting) and those that don't.

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<p>Begin by asking the child to generate words that could describe someone. If the child does not have access to this type of vocabulary, simply introduce the child to 10-12 words that you have written on word cards. Ask the child to show you the words that describe only himself/herself, only you, and both of you. As the child selects the words, you place them in the category the child indicates. Make sure the child understands this before going on.</p>	<p>“You listen/read so that you can compare and contrast the two main characters in the story. You’ll tell me which of these words describes only one and which words describes both characters”</p> <p style="text-align: center;">[compare/contrast]</p>	<p>The teacher has prepared word cards with words that could be used to describe any character (ideally, these would be words the student has generated using his/her device during the before reading background instruction). After reading, the teacher draws columns or a Venn diagram and the child indicates where each word belongs.</p>
<p>Use examples from the child’s life to teach him/her about cause and effect relationships. Some examples might be: (1) When you cry, someone comes running to help you. The cause is crying and the effect is getting help. (2) When there is a big snowstorm, schools and businesses are closed. The cause is the snow and the effect is closed schools. (3) When you go out in the rain without an umbrella, you get soaking wet. The cause is no umbrella, the effect is getting wet. You might choose to have two word cards, one says “cause” and one “effect.” Give the students they examples verbally and ask them to indicate which is the cause and which is the effect.</p>	<p>“You read/listen so that you can tell me the cause/effect relationship that occurs in this story. You’ll tell me which of the events I’ve written here best describes the effect (what happened) in the story. Then you can tell me which of the events I’ve written best describes the cause (what made it happen) of that event.”</p> <p style="text-align: center;">[cause-and-effect]</p>	<p>The teacher will write several short descriptions of events from the story. There should be more than the actual two that are the cause and effect, but not so many that it is too confusing for the student. The teacher will read these descriptions orally for the task that follows the reading. The goal should be for the child to accurately identify the events, not read the descriptions the teacher has written.</p>