Most students entering college have not yet dealt with the level of difficulty involved in reading—and comprehending—scholarly textbooks and articles. The challenge may even surprise some who have pretty good reading and comprehension skills so far. Other students for whom reading has mostly consisted of social media, texts, forum chat rooms, and emails, find they are intimidated by the sheer amount of reading there is in college classes.
Reading Comprehension Definition

Reading comprehension is defined as the level of understanding of a message. This understanding comes from the interaction between the words that are written and how they trigger knowledge outside the text/message. Comprehension is a “creative, multifaceted process” dependent upon four language skills: phonology, syntax, semantics, and pragmatics. Proficient reading depends on the ability to recognize words quickly and effortlessly. It is also determined by an individual’s cognitive development, which is “the construction of thought processes.” Some people learn through education or instruction and others through direct experiences.

There are specific traits that determine how successfully an individual will comprehend text, including prior knowledge about the subject, well-developed language, and the ability to make inferences. Having the skill to monitor comprehension is a factor: “Why is this important?” and “Do I need to read the entire text?” are examples. Another trait is the ability to be self-correcting, which allows for solutions to comprehension challenges.

Reading Comprehension Levels

Reading comprehension involves two levels of processing, shallow (low-level) processing and deep (high-level) processing. Deep processing involves semantic processing, which happens when we encode the meaning of a word and relate it to similar words. Shallow processing involves structural and phonemic recognition, the processing of sentence and word structure and their associated sounds. This theory was first identified by Fergus I. M. Craik and Robert S. Lockhart.

Brain Region Activation

Comprehension levels can now be observed through the use of a fMRI, functional magnetic resonance imaging. fMRIs’ are used to determine the specific neural pathways of activation across two conditions, narrative-level comprehension and sentence-level comprehension. Images showed that there was less brain region activation during sentence-level comprehension, suggesting a shared reliance with comprehension pathways. The scans also showed an enhanced temporal activation during narrative levels tests indicating this approach activates situation and spatial processing.

History

Initially most comprehension teaching was based on imparting selected techniques that when taken together would allow students to be strategic readers. However, in 40 years of testing these methods never seemed to win support in empirical research. One such strategy for improving reading comprehension is the technique called SQ3R: Survey, Question, Read, Recite, and Review, that was introduced by Francis Pleasant Robinson in his 1946 book Effective Study.

Between 1969 and to about 2000 a number of “strategies” were devised for teaching students to employ self-guided methods for improving reading comprehension. In 1969 Anthony Manzo designed and found empirical support for the ReQuest, or Reciprocal Questioning Procedure, it was the first method to convert emerging theories of social and imitation learning into teaching methods through the use of a talk rotation between students and teacher called cognitive modeling.
Since the turn of the 21st century, comprehension lessons usually consist of students answering teachers’ questions, writing responses to questions on their own, or both. The whole group version of this practice also often included “Round-robin reading”, wherein teachers called on individual students to read a portion of the text. In the last quarter of the 20th century, evidence accumulated that the read-test methods were more successful assessing rather than teaching comprehension. Instead of using the prior read-test method, research studies have concluded that there are much more effective ways to teach comprehension. Much work has been done in the area of teaching novice readers a bank of “reading strategies,” or tools to interpret and analyze text.

Instruction in comprehension strategy use often involves the gradual release of responsibility, wherein teachers initially explain and model strategies. Over time, they give students more and more responsibility for using the strategies until they can use them independently. This technique is generally associated with the idea of self-regulation and reflects social cognitive theory, originally conceptualized by Albert Bandura.

Vocabulary

Reading comprehension and vocabulary are inextricably linked. The ability to decode or identify and pronounce words is self-evidently important, but knowing what the words mean has a major and direct effect on knowing what any specific passage means. Students with a smaller vocabulary than other students comprehend less of what they read and it has been suggested that the most impactful way to improve comprehension is to improve vocabulary.

Most words are learned gradually through a wide variety of environments: television, books, and conversations. Some words are more complex and difficult to learn, such as homonyms, words that have multiple meanings and those with figurative meanings, like idioms, similes, and metaphors.

Three Tier Vocabulary Words

Several theories of vocabulary instruction exist, namely, one focused on intensive instruction of a few high value words, one focused on broad instruction of many useful words, and a third focused on strategies for learning low frequency, context specific vocabulary.

Broad Vocabulary Approach

The method of focusing of broad instruction on many words was developed by Andrew Biemiller who argued that more words would benefit students more, even if the instruction was short and teacher-directed. He suggested that teachers teach a large number of words before reading a book to students, by merely giving short definitions, such as synonyms, and then pointing out the words and their meaning while reading the book to students. The method contrasts with the approach by emphasizing quantity versus quality. There is no evidence to suggest the primacy of either approach.

Morphemic Instruction

Another vocabulary technique, strategies for learning new words, can be further subdivided into instruction on using context and instruction on using morphemes, or meaningful units within words to learn their meaning. Morphemic instruction has been shown to produce positive outcomes for students reading and vocabulary knowledge, but context has proved unreliable as a strategy and it is no longer considered a useful strategy to teach students. This conclusion
does not disqualify the value in “learning” morphemic analysis – prefixes, suffixes and roots – but rather suggests that it be imparted incidentally and in context. Accordingly, there are methods designed to achieve this, such as Incidental Morpheme Analysis.

Reciprocal Teaching

In the 1980s Annemarie Sullivan Palincsar and Ann L. Brown developed a technique called reciprocal teaching that taught students to predict, summarize, clarify, and ask questions for sections of a text. The use of strategies like summarizing after each paragraph have come to be seen as effective strategies for building students’ comprehension. The idea is that students will develop stronger reading comprehension skills on their own if the teacher gives them explicit mental tools for unpacking text.

Instructional Conversations

“Instructional conversations”, or comprehension through discussion, create higher-level thinking opportunities for students by promoting critical and aesthetic thinking about the text. There are several types of questions that a teacher should focus on: remembering; testing understanding; application or solving; invite synthesis or creating; and evaluation and judging. Teachers should model these types of questions through “think-alouds” before, during, and after reading a text. When a student can relate a passage to an experience, another book, or other facts about the world, they are “making a connection.” Making connections help students understand the author’s purpose and fiction or non-fiction story.

Text Factors

There are factors, that once discerned, make it easier for the reader to understand the written text. One is the genre, like folktales, historical fiction, biographies or poetry. Each genre has its own characteristics for text structure, that once understood help the reader comprehend it. A story is composed of a plot, characters, setting, point of view, and theme. Informational books provide real world knowledge for students and have unique features such as: headings, maps, vocabulary, and an index. Poems are written in different forms and the most commonly used are: rhymed verse, haiku, free verse, and narratives. Poetry uses devices such as: alliteration, repetition, rhyme, metaphors, and similes. “When children are familiar with genres, organizational patterns, and text features in books they’re reading, they’re better able to create those text factors in their own writing.”

The Reading Apprenticeship (RA) Approach to Comprehension

Now to some strategies to help you with some typical college-level comprehension challenges as well as some of your specific challenges identified in the previous exercise.

This lesson focuses on a method called Reading Apprenticeship. It is based on the premise that people who have become expert readers can assist learners by modeling what they have learned to do. As explained in the text, Reading for Understanding, How Reading Apprenticeship Improves Disciplinary Learning in Secondary and College Classrooms, “One literacy educator describes the idea of the cognitive apprenticeship in reading by comparing the process of learning to read with that of learning to ride a bike. In both cases, a more proficient other is present to support the
beginner, engaging the beginner in the activity and calling attention to often overlooked or hidden strategies."

This is a strategy that takes a metacognitive approach to comprehension, utilizing various strategies readers may already know they know how to do, then adding more. For example, most readers have learned to make predictions, ask questions concerning meanings ("I wonder about…"), visualize a scene being described, associate the material being read to some other material, and, at the end, summarize the material.

I like to call these our “hard drive” skills. Like a computer hard drive always humming in the background doing its thing behind the scenes, our metacognitive skills have already been assisting us as readers. We just don’t usually talk about what we are doing, for example, “Well, by golly, now I’m predicting what Godzilla will do to the poor villagers in about two scenes from now,” we just automatically predict, especially if we are familiar with characters and plot lines. For another example, “I am now going to visualize this scene in graveyard when Hamlet comes across the deceased court jester’s skull in Act V, Scene 1.” We just see it in our mind’s eye.

Now review and affirm important comprehension skills you already possess and complete the exercise below.

**EXERCISE 22-1**

Go back through the excerpt, above, on reading comprehension and THIS time, write marginal notes where you used any of the comprehension tools listed below:

- predicting
- asking questions of the material such as, “I wonder about,” “Could this mean?”
- visualizing
- connecting this material to something else you have learned
- noting where you think you might need to read something over again for comprehension
- summarizing

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