

How Children Learn to Read

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Introduction

Learning to read is a complex process that begins as far back as infancy. As children learn to read, they need to master rate, accuracy, and prosody to become fluent in reading. The purpose of this poster is to share this complex process with other elementary education majors and in-field teachers to understand the science of reading, how it aids in the process of learning to read, and what happens in the brain as children learn to read. This information is valuable in helping other pre- and current service teachers understand how children learn to read and the various models of reading that can be used in their instruction.

The Science of Reading

The science of reading is “a comprehensive body of research-based knowledge about how children learn to read...” It includes explicit and systematic instruction to provide students with the best methods for learning how to read.

Emerging Literacy

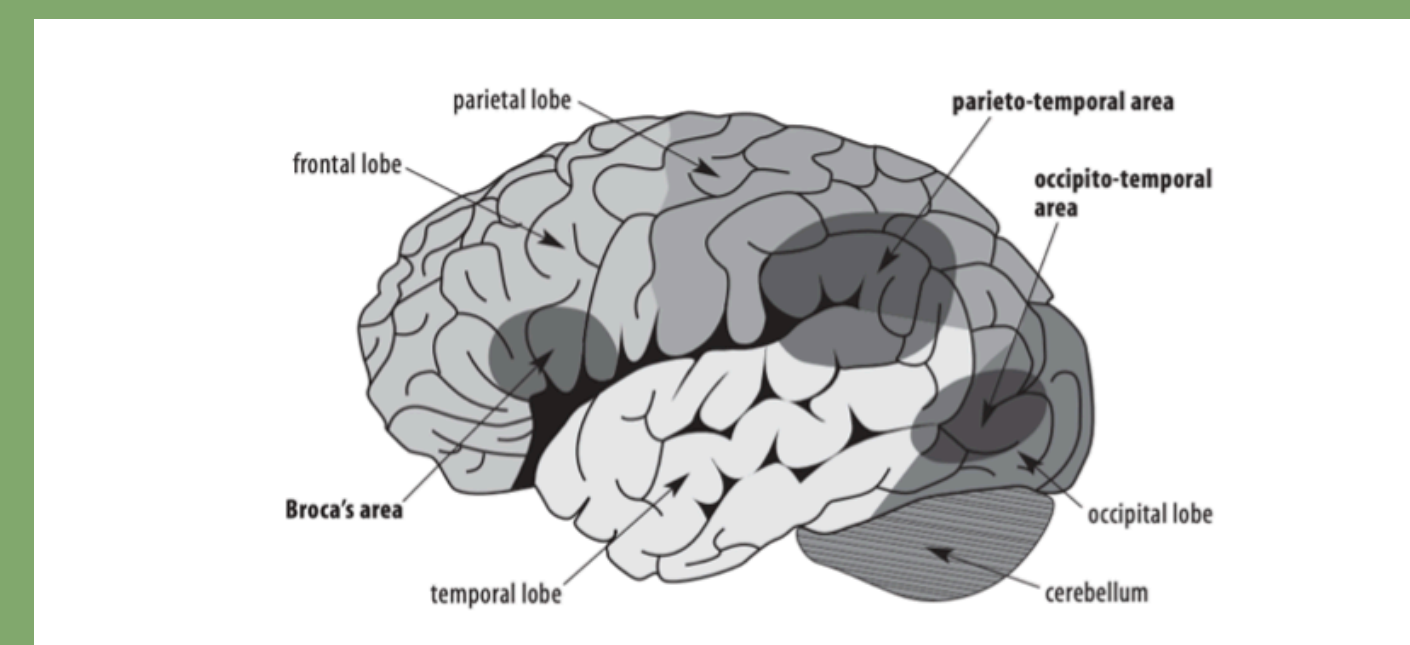
- Emerging literacy is the gradual and ongoing process of learning to understand and use language throughout early childhood and is also when children begin to make sense of written forms of languages
- This process begins at infancy and by age three, children who are surrounded by language since birth, are fluent speakers without any conscious effort

Literacy Development

- Reading development involves two important factors: word recognition and oral language comprehension. Word recognition is more important in emerging readers who are learning this alphabet song and are beginning to learn the basics of other topics such as phonemic awareness. Around 4th grade, students experience a shift where they start to read more automatically and focus more heavily on the language comprehension piece.
- Pre-K: pre-alphabetic stage
- End of K: partial alphabetic stage
- End of 1st grade: full alphabetic stage
- End of 2nd grade: consolidated alphabetic

What Occurs in the Brain

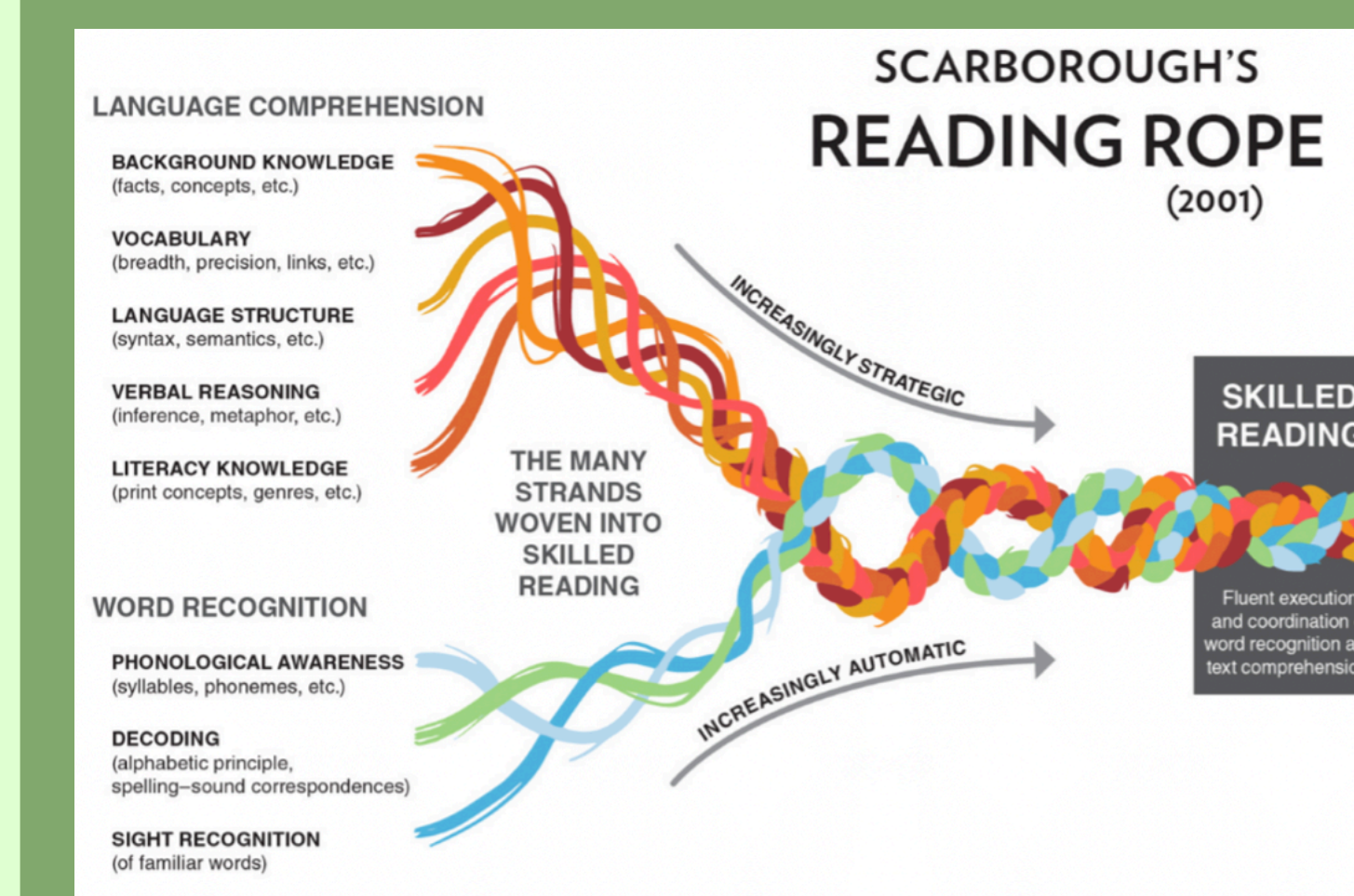
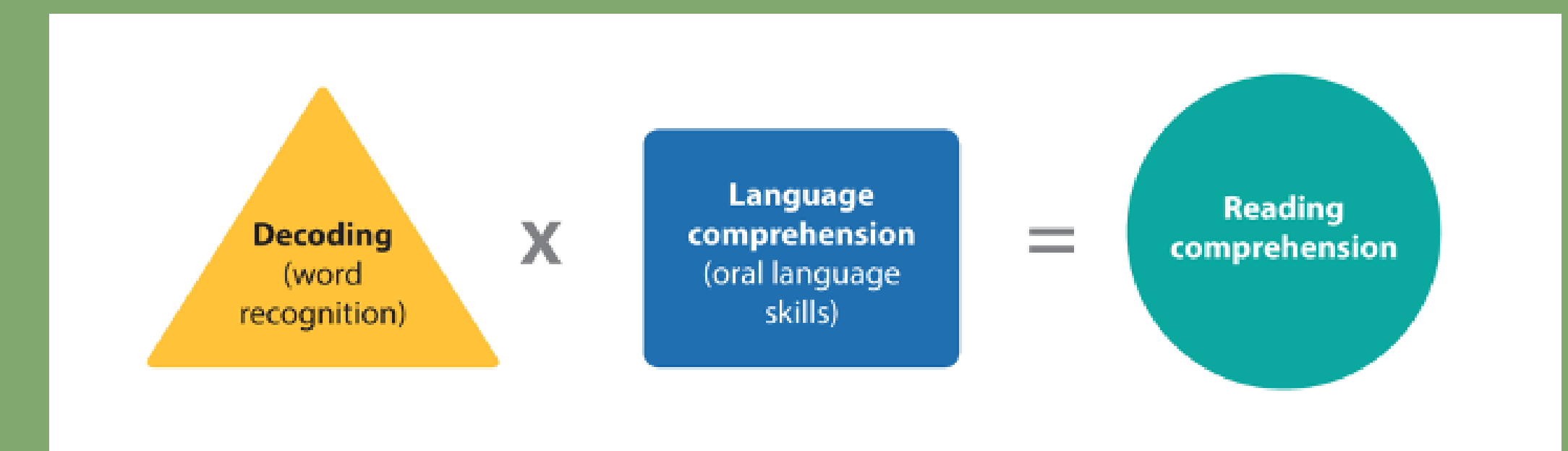
- The visual cortex helps with perceiving letters and words
- The phonological cortex maps the sounds (phonemes) to their letters (graphemes)
- The semantic cortex stores word meanings
- The syntactic cortex helps understand the rules and structures of sentences
- The parietal-temporal region is where written words are segmented into sounds
- The occipital-temporal region is where the brain stores the appearance and meaning of words
- The frontal region is where speech is produced
- Each of these regions of the brain plays a vital part in the act of reading. However, it still takes lots of practice to build up confidence in reading and to become more automatic over time.



Applications

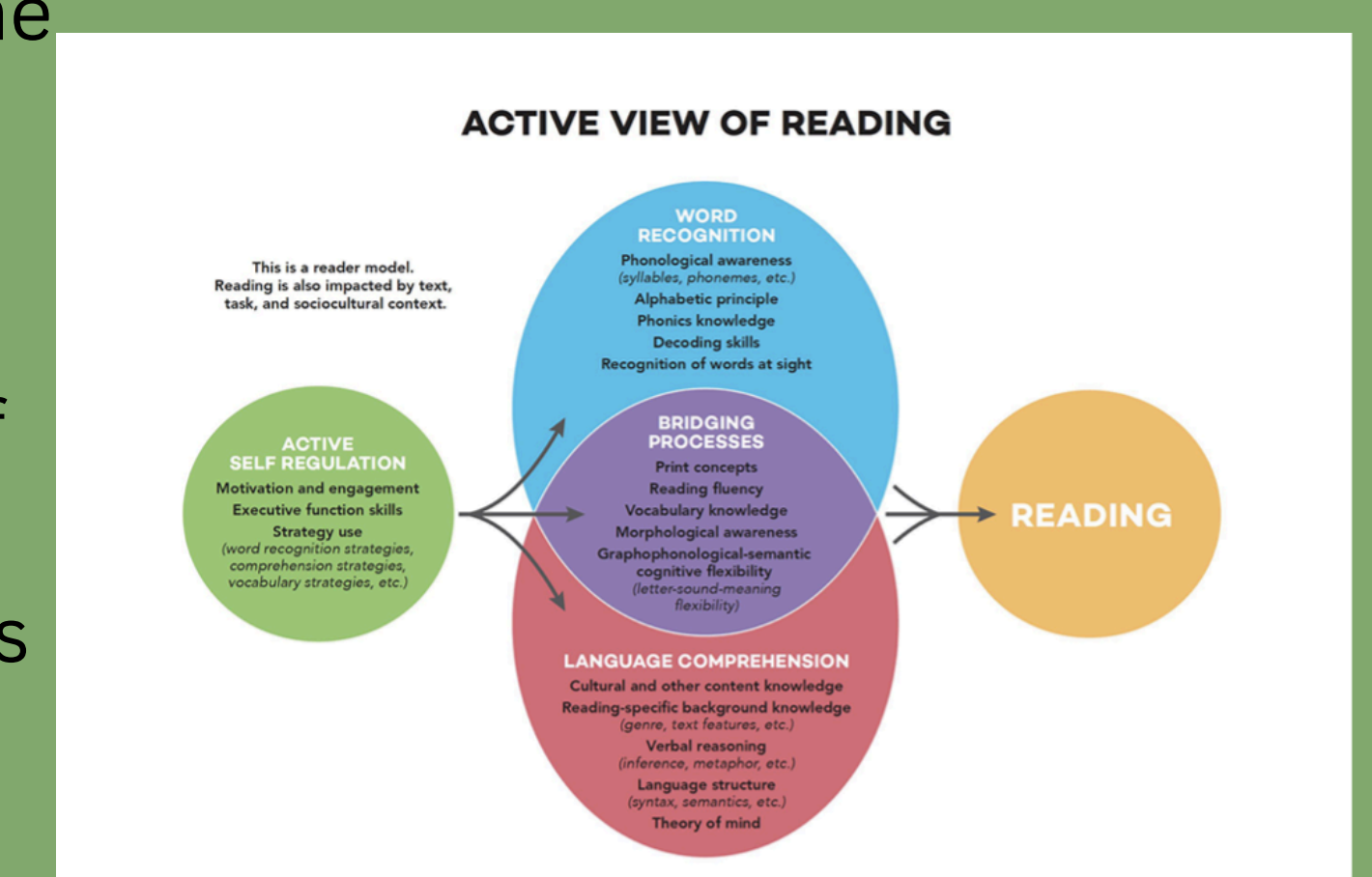
Various Models of Reading

- There are several models of approaching reading. Some of the most popular models are the simple view of reading, Scarborough's reading rope, and the active view of reading model.
- The simple view of reading (SVR) model is a theory that describes the “act of reading comprehension as the product of two cognitive skills.” In this model of reading, if both or one side of the equation is lacking or missing, reading comprehension will suffer or not exist.



- Scarborough's reading rope is an extension of the simple view of reading. This graphic was designed in 2001 to help other educators understand how the sub-skills associated with the SVR model intertwine to support learning to read

- The active view of reading takes the SVR model and adds a bridge between decoding and language comprehension to include self-regulatory skills. Self-regulation of reading requires the reader to use neurocognitive skills to use various skills like organize, strategize, and remember how they are supposed to read a text.



Conclusion

Reading is not as simple as just picking up a book and reading the words on the page. It is a complex process that involves many moving pieces. Learning how to read starts as early as infancy and is a lifelong process. As children age, they continue to expand their brains and in turn, expand their vocabulary along with developing their reading and writing skills.

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