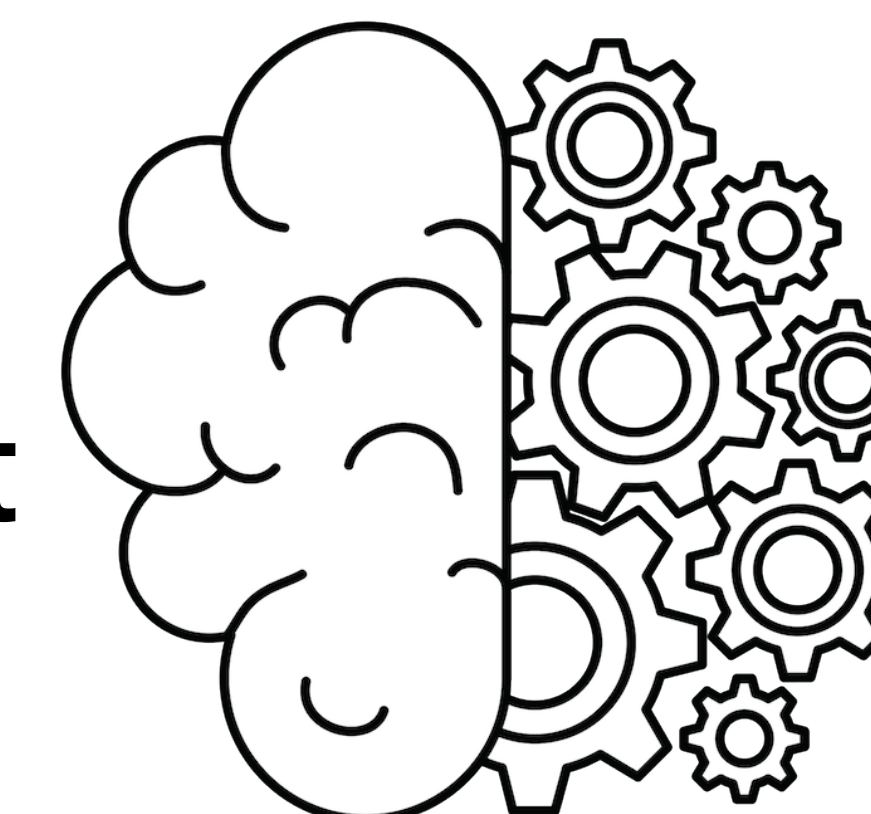


Working Memory in Late Adolescence and Early Adulthood for Individuals With and Without Language Impairment



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The essence of communication is to translate experience, feelings, and ideas into usable information.

In order to effectively communicate, your working memory must be able to process and manipulate these experiences, feelings, and ideas into usable information. If our working memory isn't processing information effectively, it will impact how we communicate and learn new information.

RESEARCH INTERESTS



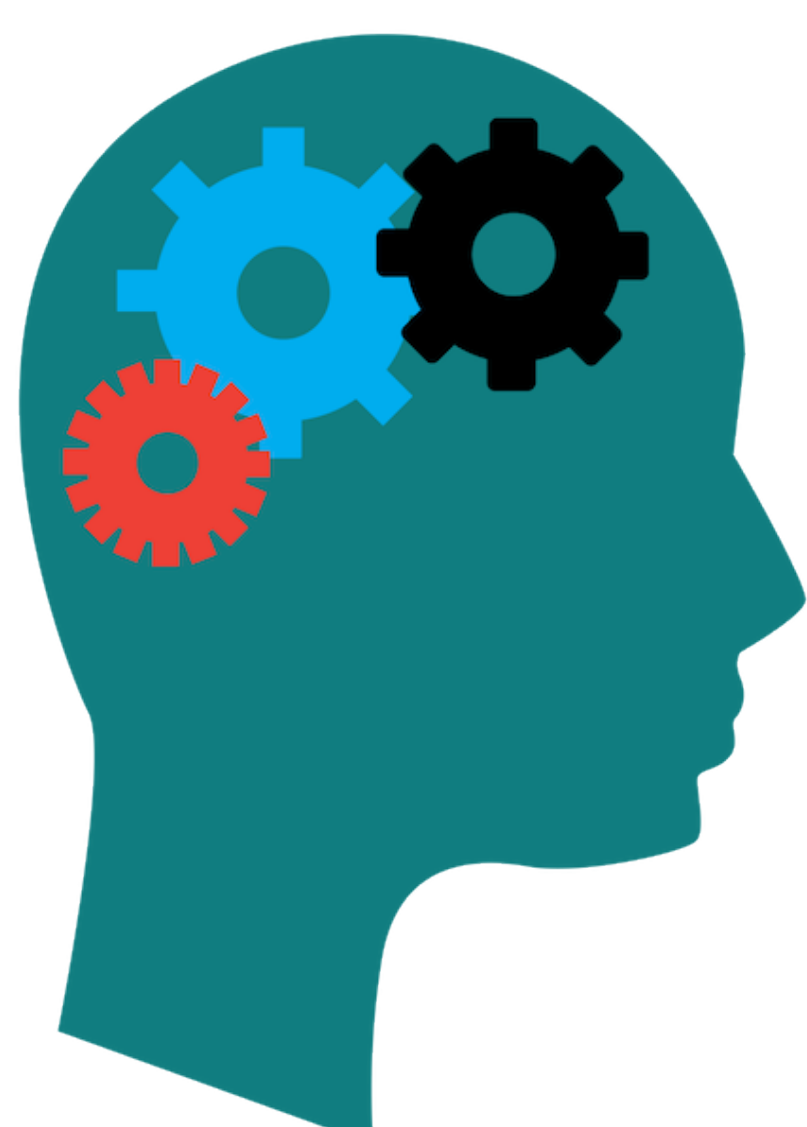
Working memory is the mental process that allows limited information to be held in a temporary accessible state during cognitive processing. Working memory is a primitive of higher level cognition, which involves the production of language.

Language Impairment is a language disorder that impacts the ability to learn and use language appropriately. Language impairment impacts individuals while they are learning language and beyond, into adult years.



Language Impairment is also called:

- specific language impairment
- developmental language disorder



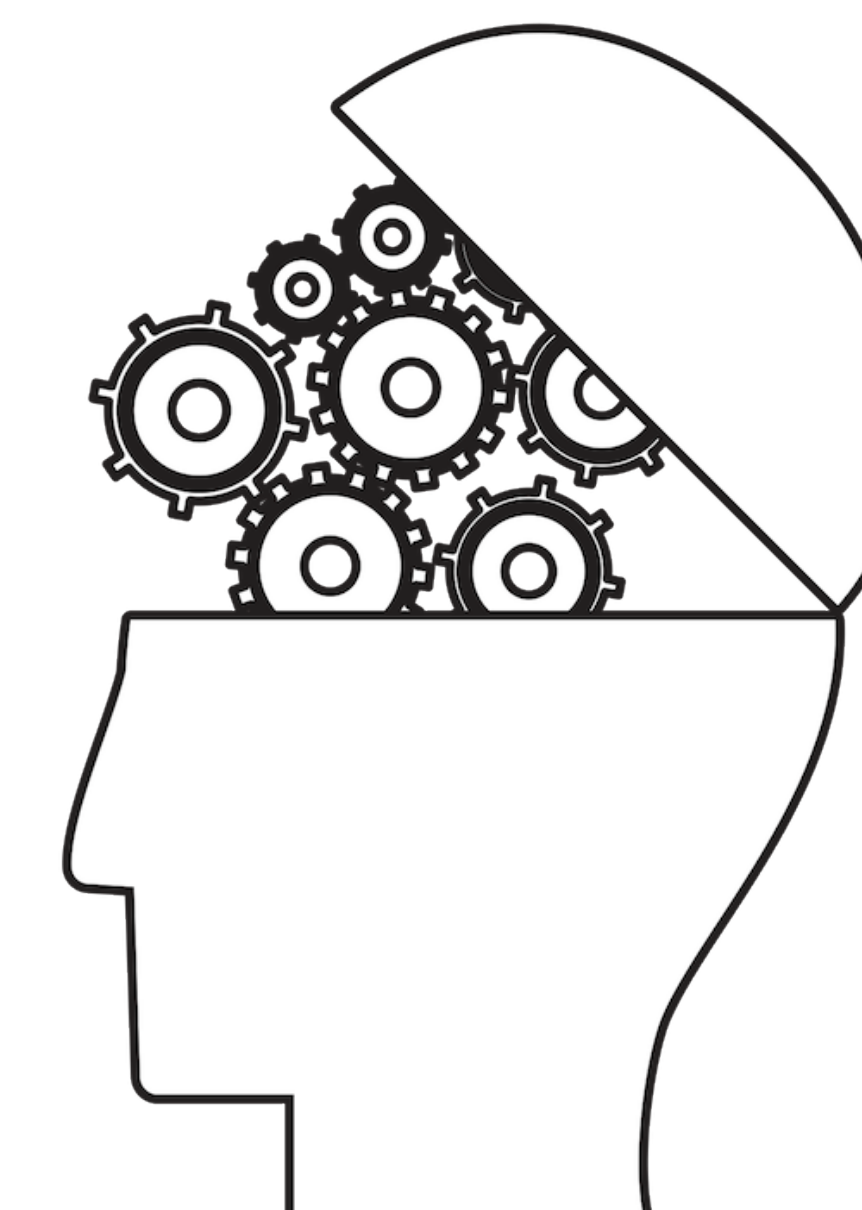
Late adolescence and early adulthood is often a critical time for individuals. Many are venturing out on their own and often making, for the first time, decisions that can impact the rest of their life.

In a 2017 article, Rusli refers to working memory as a “multi-mechanism construct with the primary function of enabling individuals to store and maintain information in an active and accessible state while performing some kind of cognitive activity” (Rusli, 2017). Based on this definition of working memory, verbal communication can be categorized into two parts: (1) the storage requirement which is remembering the items involved in the task, and (2) the cognitive component which is processing and comprehending the sentences.

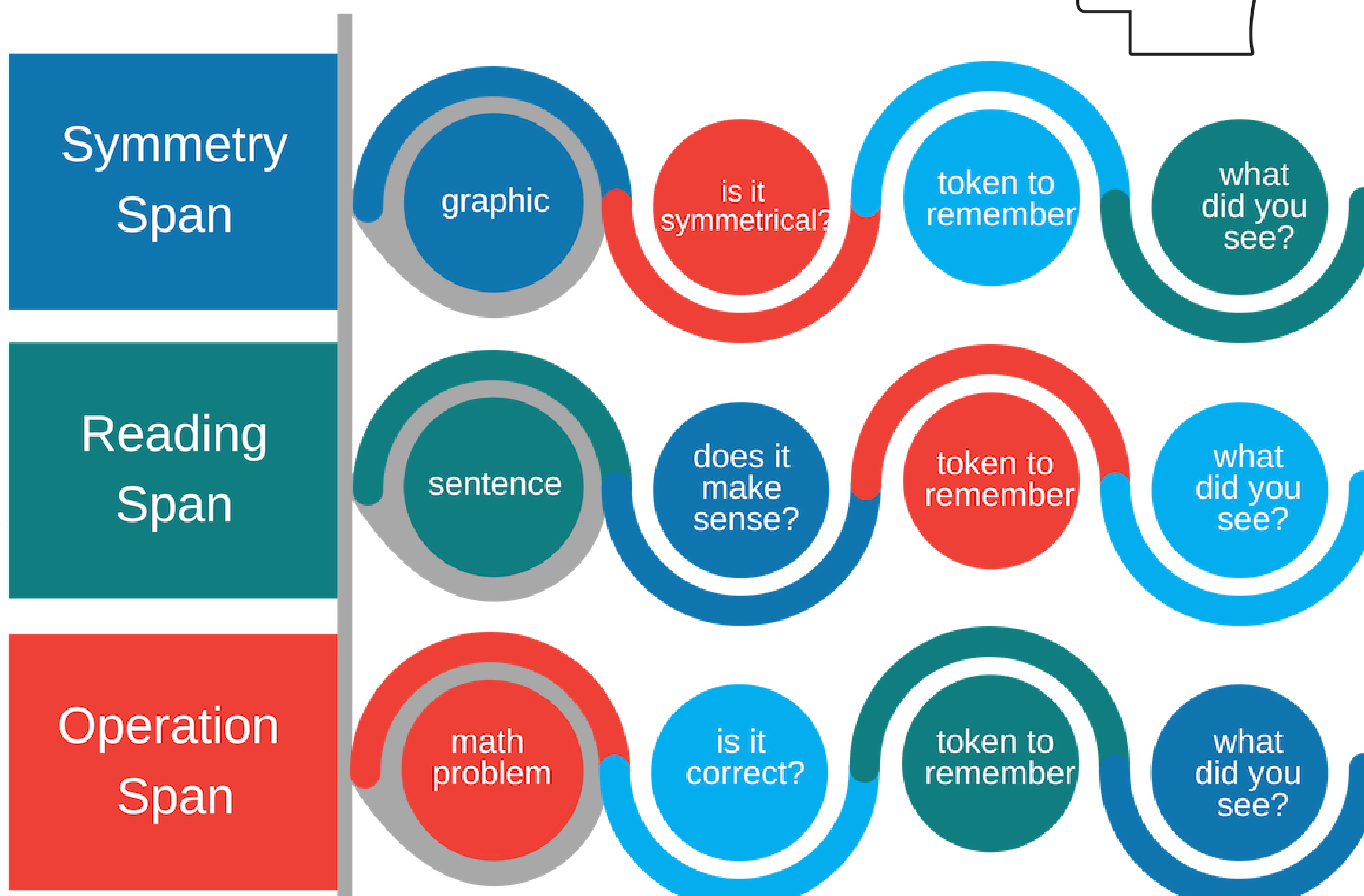
CLINICAL RELEVANCE

Working memory and predictive outcomes can help SLPs assess and intervene for individuals with language impairment. Identifying language impairment issues related to working memory, could raise overall language function through academic areas (Boudreau & Costanza-Smith, 2011). Poor academic performance can be an indicator of success later in life. Working memory is known to degrade as individuals age. A longitudinal study examined children in preschool and then again six years later to see if the children who scored lower on working memory tasks in preschool were more likely to present with lower academic achievement in later years. This study compared IQ and working memory scores and elucidated working memory deficits were more indicative of later academic deficits in the area of literacy when compared to IQ scores (Alloway & Alloway, 2009).

Examining an individual's working memory in late adolescence and early adulthood can help SLPs develop curricula to improve working memory throughout the lifespan.



Working Memory



FUTURE INTERESTS

Many researchers are studying aspects of working memory, but in an effort to standardize the information, The Engle Lab at the Georgia Institute of Technology has made three working memory measures available for research studies. The working memory tasks, Operation, Symmetry, and Reading Span, have been normed against 6,000 young adults (between 17 and 35) (Redick, et. al., 2012). My particular interest would be to compare individuals with and without language impairment in late adolescence and early adulthood to the norms the Engle lab has collected.

If interested in future research projects, contact Virginia Ingram (vingram1@uthsc.edu; 919-475-7706)

