Supervisory Committee
Dr. Sarah J. Macoun, Supervisor
Department of Psychology

Dr. Catherine Costigan, Departmental Member
Department of Psychology

Abstract

Children with autism spectrum disorder (ASD) commonly experience reading difficulties, especially in reading comprehension. Children with ASD also commonly experience deficits in cognitive processes, including attention, executive functions, inferencing, among other cognitive abilities. In particular, there is evidence that attention and EF abilities are important for reading proficiency and that such deficits in ASD may contribute to reading difficulties in this population, although this area is understudied. The Integrated Model of Reading Comprehension (IMREC) conceptualizes comprehension as the product (i.e., a coherent mental representation of text in the reader’s mind) of automatic (e.g., the availability of recently processed information in working memory) and strategic (e.g., effort for predicting and monitoring text for meaning) processes. As such, it outlines cognitive contributors to reading comprehension, thus making it potentially valuable in the conceptualization of reading comprehension in ASD. The aim of the current study was to investigate underlying cognitive components associated with reading comprehension in children with ASD, as informed by the IMREC model. A systematic review of the association between cognitive variables and reading comprehension in individuals with ASD was conducted. The review included articles published between 2000 and 2020. 1,430 articles were initially screened, and 22 articles met study inclusion criteria and were included in the final review. Results indicated that working memory, intelligence, and verbal memory are important for reading comprehension in ASD, though there is much research to be done in the area, especially around factors such as inference and attention allocation. Future research should utilize more clearly defined samples, theoretically-based cognitive variables, and theoretically-based study design.