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Research Digest:
Learning and Literacy

Trainin, G., & Swanson, H. L. (2005). Cognition, metacognition, and achievement of college students with learning disabilities. *Learning Disability Quarterly, 28*, 261-272.

The transition from high school into higher education is difficult for almost any student. However, it is particularly challenging for students with learning disabilities (LD). This study aimed to understand the way successful college students with LD compensated for their deficits in phonological processing as compared to students without learning disabilities. Moreover, the researchers used the study to explore whether college students identified with LD use metacognitive strategies, defined by Zimmerman (1986) as the ability to adjust behavioral and environmental functioning in response to changing academic demands, as a means of offsetting their phonological processing deficits. The researchers hypothesized that college students with disabilities compensate in cognitive processing by relying on metacognitive strategies.

Forty students, (20 LD, 20 without LD) from four universities in Southern California were administered various achievement, process, and metacognitive measures including working memory, semantic processing, reading, and metacognition. The participants without LD (NLD) were matched as closely as possible to the population of students with LD. Both groups were classified according to grade point average and phonological processing.

The results revealed that students with and without LD performed equally well across the three achievement measures used: GPA, reading comprehension, and vocabulary. However, students with LD had significant difficulties in word reading, pseudoword reading, real-word reading, and rate of reading although reading comprehension was in the average range. Students with LD also performed significantly lower than their peers without LD in phonological, speed of processing, semantic processing, and short-term memory. These deficits in four domains "highlight the difficulty in naming one or two specific deficit processes when defining LD when both groups are comparable in reading comprehension" (p. 270). Students with LD had a significantly lower expectancy value and high anxiety which could explain protective pessimism in which individuals work harder through planning, thought, and effort while remaining unrealistically pessimistic about their prospects. Students with LD reported seeking help from family, friends, instructors, and formal agencies to regulate their learning and time management. In addition, strategy use in problem solving revealed evidence in students with LD and accounted for GPA's as high as their NLD peers, which shows that strategy use is a key to success for students with LD.

The results reveal the implication that strategies have on students with LD transition from high school to postsecondary school. More importantly, they highlight the importance that teachers and school support systems serve in emphasizing learning strategies that are flexible and accommodating to students with LD.

This Research Digest is a product of the Nebraska Center for Research on Children, Youth, Families and Schools. The research presented is a sample of state-of-the-art research conducted in the area of Learning and Literacy faculty at UNL. For more information on the Center, please contact Holly Sexton at hsexton1@unl.edu

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