



The Woodcock-Muñoz Foundation

RESEARCH BRIEF

DOCTORAL DISSERTATION ABSTRACT

Phonological Processing, Automaticity, Auditory Processing, and Memory in Slow Learners and Children with Reading Disabilities

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Abstract

The definition and classification of learning disabilities has been an ongoing debate, largely related to the use of a discrepancy between intelligence and achievement as the determining factor. Children who have a discrepancy are typically classified as learning disabled and qualify for services through the schools, while those who have difficulty reading but do not have a discrepancy due to low or below average intelligence levels ("slow learner") are frequently denied services. Many studies have revealed more similarities than differences between slow learners and children with learning disabilities, yet educational policy has not reflected these findings. In order to further the understanding of differences between the two groups and to provide additional information about the reading process, the current study examined the relationship between phonological processing, automaticity, auditory processing, and memory in slow learners and children with reading disabilities. Participants were selected from a sample of 2,361 students in the first through fifth grades who were tested as a part of the standardization for the *Woodcock-Johnson III*. Three groups were formed: Control ($n = 75$), Slow Learner ($n = 79$), and Learning Disabled ($n = 32$), resulting in a total sample size of 186 participants. MANOVA results revealed overall differences between the groups. Follow-up comparisons found that the Slow Learner group had significantly poorer performance as compared to the Control group on all measures; the Learning Disabled group was significantly worse than the Control group on Phonological Processing but not on any other measure; and the Slow Learner group performed significantly worse than the Learning Disabled group on all measures. Correlational analyses revealed a series of significant correlations from small to large. Results from a multiple regression revealed that from the four factors that were investigated, Phonological Processing was the only statistically significant contributor to the variance of Basic Reading. Results appear to support the "phonological-core-variable difference" hypothesis from the literature (Stanovich, 1988), as well as current proposals for changes to educational policy. Future research should be directed towards determining the capacity of slow learners and children with learning disabilities to respond to intervention.

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