

Contributions of phonological awareness, phonological short-term memory, and rapid automated naming, toward decoding ability in students with mild intellectual disability.

Abstract

Reading decoding ability is a fundamental skill to acquire word-specific orthographic information necessary for skilled reading. Decoding ability and its underlying phonological processing skills have been heavily investigated typically among developing students. However, the issue has rarely been noticed among students with intellectual disability who commonly suffer from reading decoding problems. This study is aimed at determining the contributions of phonological awareness, phonological short-term memory, and rapid automated naming, as three well known phonological processing skills, to decoding ability among 60 participants with mild intellectual disability of unspecified origin ranging from 15 to 23 years old. The results of the correlation analysis revealed that all three aspects of phonological processing are significantly correlated with decoding ability. Furthermore, a series of hierarchical regression analysis indicated that after controlling the effect of IQ, phonological awareness, and rapid automated naming are two distinct sources of decoding ability, but phonological short-term memory significantly contributes to decoding ability under the realm of phonological awareness.

Keyword: Decoding ability; Phonological awareness; Phonological short-term memory; Rapid automated naming; Intellectual disability.