

## Sound or Word Identification: Which Plays a Greater Role in Specific Learning Difficulty?

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### ABSTRACT

*The objective of this study is to investigate the way that children aged 7-16 (N=67) with specific learning difficulties performed on pattern recognition tasks emphasizing orthographic or phonological processing. The total sample was subdivided into 6 categories which are characterized by reading difficulty (n=11); writing difficulty (n=11); difficulty with reading and writing (n=12); difficulty with reading, writing and mathematics (n=10); garden variety poor reader group (n=10) and a normal control (n=13). The pattern recognition tasks were varied into three levels: sound identification, word identification, identification of sound-word match. For each of the pattern recognition task the stimuli were presented on a LCD screen. In each trial the subject had a target which he had to discriminate from the non- targets. The subject responded by pressing a specific key to the targets and pressed another key to the non-targets. In each case the proportion of correct responses were taken. Nonparametric statistical techniques were applied for finding out the group difference. The result suggests that group differences are significant at .01 level for the tasks having more reliance on orthographic skills but not in task which requires only phonological processing (sound identification). Thus, the tasks loaded with orthographical processing skill better differentiate the present sample groups than the tasks involve phonological processing skills. The present finding shows greater role of orthographical skill responsible for visual word identification against the backdrop of existing*