BREAKING THE DISCREPANCY CODE:
A META-ANALYSIS OF THE
SPECIFIC LEARNING DISABILITY LITERATURE

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ABSTRACT

Previous “selective” meta-analyses of the literature relating to the IQ-achievement discrepancy model of specific learning disability identification have concluded that “underachieving” and “low-achieving” poor readers do not differ in any educationally meaningful way. Underachievers are those poor readers who qualify as learning disabled using an IQ-achievement discrepancy definition, and low achievers are those poor readers who do not. The purpose of this study was to conduct a comprehensive quantitative synthesis of the extensive literature base from an alternative perspective and employing more modern and robust statistical models. The study tested the IQ-achievement discrepancy model’s construct validity, whether it can discriminate two meaningfully different subgroups within the population of poor readers, by examining not only reading skills but also listening skills. Consistent with previous research, the discrepancy definition did not differentiate the two groups based upon reading skills. The resulting effect size of $\delta = -.01$ for reading comprehension supported the hypothesis that underachieving and low-achieving students are equally impaired in ability to learn via written text, despite the fact that underachieving students evidenced a greater level of impairment in decoding/phono logical awareness ($\delta = -.39$). With respect to listening comprehension, however, the discrepancy definition did meaningfully differentiate the two groups with a large effect size. The resulting $\delta = +.86$ supported the hypothesis that underachieving students have a much greater capacity to learn
via the auditory channel. Underachieving students substantially outperformed low-achieving students in this educationally meaningful skill, despite a relatively liberal IQ-achievement discrepancy requirement of only 1SD. Regardless of conflicting results in the primary research, previous syntheses concluded no meaningful differences between underachievers and low achievers exist. Hunter and Schmidt (2004) contended, however, that most methods of research synthesis are based upon incomplete theories of data and/or naïve philosophical foundations and thus frequently produce misleading results. They argued that what appears to be conflicting data is actually encrypted information, and to understand its meaning scientists must first break the code. By employing their more modern and robust model of “psychometric” meta-analysis, this study decrypted the data to identify a substantial and educationally meaningful difference and thereby break the discrepancy code.