Critical Review:
Examining the Predictive Value of Oral Language Variables on Measures of Reading Achievement

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This critical review examines the ability that specific oral language measures have on predicting measures of reading achievement. A literature search was conducted and study designs incl

comprehension abilities did not truly reflect pure listening comprehension, as the task also involved a receptive vocabulary component.

Roth et al. (2002) examined the ability of oral language skills in kindergarten children to predict later reading abilities. The authors found that predictors of first grade word recognition included PA and metasemantic skills from the metalinguistic domain (4% and 5%, respectively), and receptive syntax from the structural language domain (9%). When the final model was tested, word recognition measures from kindergarten, PA, and metasemantics accounted for 75% of the variance. Second grade word recognition skills were found to be best predicted by PA skills (60% of the variance) within the domain of metalinguistics, and word retrieval (16% of the variance). When the final model was tested, only PA skills were retained, accounting for 61% of the variance.

In 2004, Nation and Snowling also examined oral language variables and their predictive value on single-word recognition in children ages 8.5 and 13 using a case series design. The researchers sought to identify which individual differences in language would predict which individual differences in reading. Nation and Snowling (2004) performed hierarchical regressions to assess concurrent predictors of word recognition at age 8.5, and found that after considering age and nonverbal ability, pseudo-word reading (which they included as a possible predictor of word recognition and reading comprehension as opposed to assessing it as a measure of reading achievement in itself) and PA skills accounted for 72% of the variance. Semantic abilities (defined as a combined measure of semantic fluency, i.e., ability to generate a list of semantically related words to a given target, and synonym judgment, i.e., ability to identify synonyms), expressive vocabulary, and listening comprehension contributed 4.0%, 3.8%, and 3.0% of the variance, respectively. After examining longitudinal predictors of word recognition when the participants were 13 years of age, they found that after age and nonverbal IQ, the autoregressor accounted for 59.8% of the variance. Pseudo-word reading and PA skills added in as the next step accounted for 9.9% of the variance. Semantic, vocabulary, and listening comprehension abilities accounted for 1.9%, 1.9%, and 2.4% of the variance, respectively.

Pseudo-Word Reading and Single-Word Recognition: Studies by Catts et al. (2002) and Catts et al. (1999) used case series designs and combined measures of pseudo-word reading and single-word recognition to form one composite measure. Catts et al. (2002) sought to discover which variables in children with language impairments (LI) were predictive of reading achievement in second and fourth grades. They examined the predictive value of oral language measures (i.e., semantic composite, grammar composite (measures of grammar and sentence imitation), narrative composite (measures of narrative retell and comprehension), rapid naming, and PA) as measured in kindergarten on the composite measure of word reading in grades two and four, using a sample of 208 c

hierarchical regression analyses as they sought to determine which variables accounted for more of the variability on the different measures of reading achievement, and this procedure allows for that.

The remaining four studies were given mixed ratings on their validity and importance. Regarding participants, both studies by Catts et al. (2001, 1999) had large sample sizes and included children with LI, nonverbal cognitive deficits, and children who were typically developing, while Betourne and Friel-Patti (2003) had only 17 participants, all of whom were selected by their teachers as being poor readers. In addition, both studies by Catts et al. (2001, 1999) were determined to have fair representation of the general population within its sample. Catts et al. (2001, 1999) applied a weighting procedure to make their samples comparable to that of the population. In contrast, Betourne and Friel-Patti's study (2003) sampled only from a suburb of a major metropolitan area with moderate to high socioeconomic status (SES), and do not mention the gender distribution or ethnicity of the participants. However, this did allow the researchers to have more control over external variables such as SES. Wise et al. (2007) had a large sample size and was judged to be a fair representation of the population, but the sample included only children who were selected by their teachers as having difficulty learning to read.

Considering methodology, all four studies either provided training to examiners or used SLPs, but unfortunately, none of the studies mention if the examiners' were blinded to the purpose of the study or to the information on the sample. Both Betourne and Friel-Patti (2003) and Catts et al. (1999) had good construct, content, and face validity. Catts et al. (2001) rated poorly in these three domains because the researchers only used measures of reading comprehension in their analyses despite claiming that the purpose of their study was to find a mathematical equation that could be used to determine future reading achievement. Therefore it is only reasonable to assume that the study results are applicable to predicting reading

were included as the autoregressor when determining the predictive value of variables on later word

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