Dynamic Indicators of Vocabulary Skills

Current research suggests that the United States is losing the battle in the fight

against illiteracy. In particular, increasingly large numbers of children are failing to

acquire the early literacy skills, including vocabulary knowledge, that are necessary for

reading success. Poor vocabulary knowledge generally translates into poor reading

ability during the elementary school years and beyond. As a result, there exists a need to

prevent reading difficulties by identifying children at risk for insufficient development of

vocabulary skills and by evaluating the effectiveness of vocabulary skills interventions

for these children.   Unfortunately, the vocabulary measures that exist in today's

educational market were not developed to (a) describe and categorize critical vocabulary

skills, and (b) allow for subsequent evaluation of vocabulary skills. Therefore, Parker

(2000) developed two vocabulary measures that meet these criteria: (a) Picture Naming

Fluency, and (b) Reverse Definition Fluency.

Picture Naming Fluency

Description. The Picture Naming Fluency (PNF) measure contained 44 color,

randomly ordered stimulus pictures designed by a professional graphic artist. The

stimulus pictures were printed four per line on three 8.5" X 11" pieces of white paper.

All pictures represented common nouns such as frog, glass, and house from the The

Educator's Word Frequency Guide (Zeno, Ivens, Millard, & Duvvuri, 1995). To be

selected, the nouns had to be included minimally five times in basal readers and

children's books that typical students are likely to encounter in kindergarten and first

grade.

Following standardized procedures, examiners showed the PNF measure to each preschool student. The student then was instructed to name the pictures listed on the measure. The number of <u>Pictures Named Correctly</u> (PNC) by the student in 1 minute was used as the measure of performance.

<u>Technical Adequacy.</u> The technical adequacy of the PNF task is summarized by Parker (2000; 2006) and Parker & Ditkowsky (2006). The alternate form reliability is .84 for *preschool* and .73 for *kindergarten*. Reported concurrent criterion-related validity coefficients for *preschoolers* are as follows: DIVS Reverse Definition Fluency ($r = .77$), Peabody Picture Vocabulary Test-III ($r = .75$), Expressive Vocabulary Test ($r = .43$), Preschool Language Scale-Auditory Comprehension ($r = .64$), and Preschool Language Scale-Expressive Communication-($r = .67$). Similarly, reported concurrent criterion-related validity coefficients for *kindergartner*s are as follows: DIVS Reverse Definition Fluency ($r = .58$), Peabody Picture Vocabulary Test-III ($r = .42$), Expressive Vocabulary Test ($r = .44$), and the OWLS-Oral Expression Scale ($r = .56$). Reported predictive criterion-related validity for *preschoolers* with the DIBELS Letter Naming Fluency, Nonsense Word Fluency, and Oral Reading Fluency subtests are .40, .37, and .39, respectively. Reported predictive criterion-related validity for *kindergartners* with the DIBELS Letter Naming Fluency, Nonsense Word Fluency, and Oral Reading Fluency subtests are .59, .50, and .42, respectively. Lastly, a construct validity study of the DIVS measures (Parker, 2000) revealed that alternate forms of the PNF measure correlated .66 for *preschoolers* and .82 for *kindergartners* with the latent construct of language competence.

Reverse Definition Fluency

Description. The Reverse Definition Fluency (RDF) measure contained 30

randomly ordered formal definitions that described common nouns selected from The

Educator's Word Frequency Guide (Zeno, Ivens, Millard, & Duvvuri, 1995). These

formal definitions were developed according to specific criteria. That is, each formal

definition included a copula, a superordinate, and a relative clause (e.g., a nose is a body

part that helps us smell). It should be noted that the textbook Words for New Readers

(Foresman & Wesley, 1990) was utilized as a resource when definitions were formulated

for the selected common nouns.

Using standardized procedures, examiners verbally presented these formal

definitions to the preschool students and told the students to name the vocabulary words

being defined. Examiners timed the students only when it was their turn to respond for a

total time of 1 minute. The number of Words Named Correctly (WNC) in 1 minute was

used as the measure of performance.

Technical Adequacy. The technical adequacy of the RDF task is summarized by

Parker (2000; 2006) and Parker & Ditkowsky (2006). The alternate form reliability is .86

for *preschool* and .76 for *kindergarten*. Reported concurrent criterion-related validity

coefficients for *preschoolers* are as follows: DIVS Picture Naming Fluency ($r = .77$),

Peabody Picture Vocabulary Test-III ($r = .83$), Expressive Vocabulary Test ($r = .68$),

Preschool Language Scale-Auditory Comprehension ($r = .70$), and Preschool Language

Scale-Expressive Communication-($r = .73$). Similarly, reported concurrent criterion-

related validity coefficients for *kindergartner*s are as follows: DIVS Picture Naming

Fluency ($r = .58$), Peabody Picture Vocabulary Test-III ($r = .75$), Expressive Vocabulary

Test (r = .75), and the OWLS-Oral Expression Scale (r = .77). Reported predictive criterion-related validity for *preschoolers* with the DIBELS Letter Naming Fluency, Nonsense Word Fluency, and Oral Reading Fluency subtests are .37, .29, and .42, respectively. Reported predictive criterion-related validity for *kindergartners* with the DIBELS Letter Naming Fluency, Nonsense Word Fluency, and Oral Reading Fluency subtests are .44, .37, and .38, respectively. Lastly, the aforementioned construct validity study (Parker, 2000) suggested that alternate forms of the RDF measure correlated .85 for *preschoolers* and .85 for *kindergartners* with the latent construct of language competence.

References

Parker, C. (2000). Identifying technically adequate measures of vocabulary for young children at risk for reading disabilities. Unpublished doctoral dissertation, University of Oregon, Oregon.

Parker, C. (2006). Examining the concurrent validity of the Dynamic Indicators of Vocabulary Skills. (Technical report No. 3). Westport, MA: Author.

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