

PAR RTI Benchmarks Intervention

Benchmarks

PAR meets the standards of the federal Agency for Healthcare Research and Quality (2002) for language tests for children and adults, as follows:

AHRQ Standard	PAR Compliance
Reliability in all forms (internal consistency and test-retest) exceeds .90.	Cronbach's internal consistency alpha >.90 for the three item based subtests. Retest reliability > .90 for all subtests as well as for the overall score.
Validity at least moderate (>.30)	Validity for concurrent WJ-III >=.91.
National norms are ethnically and geographically representative of the population served, and relevant subgroups have N>=100.	National geographically diverse calibration on N=500; norm validation on N=5,000. Validity equally strong in African-American and Hispanic-Latino subgroups of N=100 each. Norms replicate US school ethnicity.
Subtests a-priori theoretically predicted relations to each other.	Distinct predictive of single word reading, vocabulary, phonemic awareness, and rapid naming fluency all replicate prior published work, consistent with consensual theories of reading development.

Ratings of PAR by the Technical Review Committee of the National Center on Response to Intervention¹

 = Convincing Evidence

Tools	Area	Classification Accuracy	Generalizability	Reliability	Validity	Disaggregated Reliability, Validity, and Classification Data for Diverse Populations	Efficiency			
							Administration Format	Administration & Scoring time	Scoring Key	Benchmarks / Norms
Predictive Assessment of Reading	*Reading		Broad				Individual	16 minutes	No	Yes

¹ <http://www.rti4success.org/screeningTools>

Reliability, Validity, and Accuracy

The reliability, validity, specificity, sensitivity, classification accuracy data for PAR are all at or nearly at 90% for all measures which resulted in it being classified as having convincing evidence of its ability to accurately identify reading deficits. PAR's area under the curve was .960 which is extraordinary.

Tests of the 4 skills were built from items separately field tested to assure that in each skill their overall relation to the criterion was independent of ethnicity or gender. N=500 took the new PAR, from North Carolina, New York, Minnesota, Colorado, Arizona, and California, randomly sampled in demographic strata matching ethnic percentages in early public school grades in the U.S. African American and Hispanic-Latino students comprised 20% each; majority race 57%; and 3% other. There were at least 100 cases in each grade from K 2nd semester through 3rd.

Figure 1. Predicting WJ-III BR PAR: N=500. R=.91 using the regression

Weights from the previous WJ-III longitudinal study. Maximal R=.93.

The validity criterion was the Woodcock-Johnson-III Broad Reading, which replaced the earlier word attack subtest (non-word reading, i.e. phonological decoding) with a text fluency subtest (rapid reading of sentences for true-false judgments). The sample mean WJ-III BR was 100.1; STD of 15.3, and no departure from normal distribution parameters, in total or by grade level. Scores on the subtests were standardized to the

normative grade level group (for Rapid Naming, after a log normal transformation), enabling comparability across grades. The original regression weights gave validity R=.91, with standard error of 5.80 (in standard score points); the maximal function was R=.935. Because of their excellent cross validation, the current PAR uses the original weights. For predicting PAR from the WJ-III BR cut score, sensitivity = 91.7%, specificity = 89.7% (these are percentage correct predictions of low and high cases, respectively).

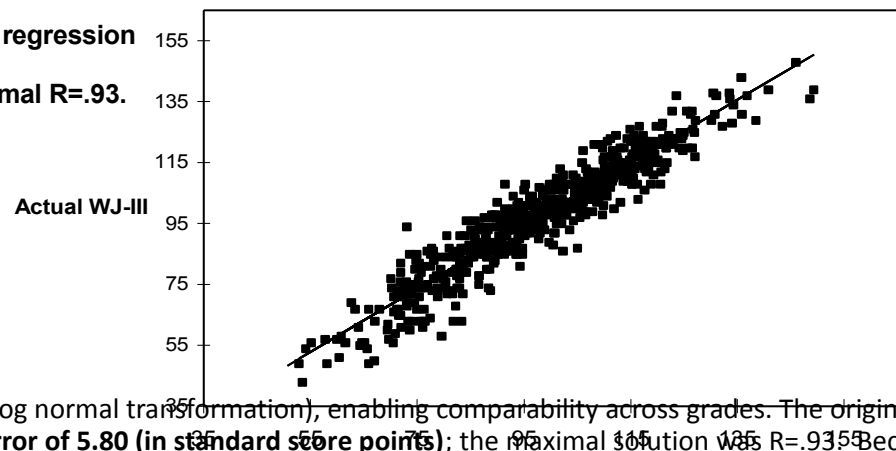


Table 2. Internal consistency and parallel forms reliabilities for the four PAR subtests and the total composite PAR prediction.

Test	Type of Reliability	
	Cronbach's Alpha	Parallel Forms
Picture Naming	.90	.91
Phonemic Awareness	.92	.94
Single Word Calling	.93	.97
Rapid Naming*		.92
Total PAR Prediction		.93
The Cronbach's alpha calculations were based on the full N=500 sample; the parallel forms reliabilities on a later N=50 group.		

See Table 2: Cronbach's internal consistency alpha reliabilities are calculable for the three item based subtests. These were statistically identical across grades; consequently, grade has no significant impact on the results. An N=5,000 ethnically stratified sample was then taken from schools in North Carolina, Florida, New Hampshire, New York, Pennsylvania, Maryland,

Minnesota, Colorado, Arizona, and California—50.5% male, 59% Caucasian, 18% African American, 17% Hispanic-Latino, 3.3% Asian, 1.1% Native American, and 1.6% other or unknown. The earlier norms were strongly confirmed; the N=5,000 mean predicted WJ-III BR was 101.3, with STD of 15.0. **Subsequently, an additional N=9,000 children have been tested, continuing to confirm the norms.**

Source: Technical Manual for Predictive Assessment of Reading (PAR), Dr. Frank Wood Wake Forest University School of Medicine 2010 copyrights 2010 – 2013 Wake Forest University Health Sciences. Winston-Salem, NC

PAR and RtI

The National Center on Response to Intervention defines RTI as a multi-disciplinary process focused on improving student outcomes.



Universal Screening – As a universal screener the PAR is a quick and easy tool for accurately determining reading deficits in children. The PAR consists of 4 sections which can be administered in 15 minutes or less.

Progress Monitoring - The PAR is administered in a one-on-one format up to three times a year for children in kindergarten through 3rd grade and during the spring semester for Pre-K children transitioning to kindergarten in the fall. PAR lesson plans assist teachers in monitoring the progress of individual children and small groups of children.

Multi-Level Prevention System – Resulting Scores from the PAR include a Remediation Code, the area(s) that the child has a deficit, and an Intensity Code, the appropriate setting that result in the most benefit to the child (individualized instruction, small group, classroom setting).

Data-Based Decision Making – OnlinePAR.net allows users to enter and score test results, monitor child progress, and create plans that meet the needs of all children in the class. The PAR includes lesson plans appropriate for classroom instruction, small group instruction, and individualized instruction. OnlinePAR.net links each child's remediation code and intensity code to both the area(s) that the child has the most needs and also the intensity or method of instruction that will benefit the child the most.

****** For children whose results do not show evidence of deficits the PAR includes Non-Remediation codes and suggestions for working with children who are at or above grade level.

How does the PAR identify students who need intervention support?

Remediation Codes reported by the PAR™ tell those skills that should be the highest priority in remedial attention. Remediation Codes include:

Remediation Code	Description
H, HH, HHH	Indicates overall levels of predicted reading that are 1, 2, or 3 grade levels respectively above current placement. Students with H Codes are able to read above grade level, and will benefit from more reading of higher level material.
OK	Solid grade level performance in all skill areas – no special help needed
F	Fluency skill training only is recommended to help with reading speed.
V	Vocabulary development needs to be encouraged. It will require patient effort in the next few years but it is encouraging that other skills are OK.
P	Phonemic Awareness instruction is needed, which usually show fairly quick results – especially in kindergarten and first grade.
W	An uncommon code: single word calling is low, but other skills are OK. Students with this code may need much extra practice in “sounding out” words and much extra reading time to, develop sight word recognition.
P+V	Combined Phonemic Awareness and Vocabulary instruction are needed, in a context of overall language stimulation. If serious (intensity code 1), then professional speech and language therapy may be needed.
P+F	Combined Phonemic Awareness and Fluency instruction are both recommended. IF the problem is serious (intensity code 1), the professional one-on-one help from a learning specialist may be needed.

Intensity Codes tell how serious the need is for special attention. Codes range from most to least needy.

Intensity Code	Description
1	Likely to need one-to-one professional help at school or elsewhere.
2	Needs extra small group help at school, or in other settings, or both.
3	May still benefit from small group help, but certainly needs additional emphases on basic skill development at the whole class level.
4	May improve from specific whole class emphasis.

How does the PAR help plan appropriate intervention support?

The PAR includes a Starter Kit and Lesson Plans designed to assist the teacher in transitioning from testing to teaching. Ideas and instruction are included for both *Whole Class* and *Small Group* times allowing the teacher to plan appropriate strategies based on the information learned from the most recent testing results. Whole Class instruction includes information for Transition Times, Teacher Talk Time, and Text Times; while Small Group settings include instruction for Phonological Decoding and Vocabulary Building. The sample lesson plan on the next page is a small group activity for phonological decoding.

The PAR includes:

A Starter Kit which includes 4 weeks of lesson plans to assist the teacher in transitioning from testing to teaching. Each week consist of 4 days of materials for each teaching week, leaving the other day free for teachers to add, improvise, take a teacher work day, etc. The activities phase in over a three week period; Week 1 is a preliminary warm-up; Week 2 begins the full complement of whole class activities, and Weeks 3 and 4 continue with adding small group time.

Twenty-one (21) small group exercises designed to assist students with an intensity code of 2 or 3 and remediation code that includes P phonemic awareness.