Running Head: FLUENCY

The Development of Middle School Passage Reading Fluency Measures for use in a Progress

Monitoring Assessment System (Technical Report #46)

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In this technical report, we describe the development alternate forms of middle school

Passage Reading Fluency measures as part of the expansion of a comprehensive progress

monitoring literacy assessment system developed in 2006 for use with students in Kindergarten

through fifth grade. In this expansion, we add middle school measures to those developed earlier.

We begin with a brief overview of the two conceptual frameworks underlying the assessment

system: progress monitoring and developmental theories of reading. We then provide context for

how the Passage Reading Fluency measures fit into the full assessment system. Additional

technical reports provide similar information about measures of Early Literacy such as Letter

Names, Letter Sounds, and Phoneme Segmenting (Alonzo & Tindal, 2007) and Reading

Comprehension (Alonzo, Liu, & Tindal, 2007).

Conceptual Framework: Progress Monitoring and Literacy Assessment

Early work related to curriculum-based measurement (CBM) led by Deno and Mirkin at

the University of Minnesota (*c.f.a.*, Deno & Mirkin, 1977) was instrumental in promoting the use

of short, easily-administered assessments to provide educators with information about student

skill development useful for instructional planning. In the three decades since, such *progress*

monitoring probes as they have come to be called have increased in popularity, and they are now

a regular part of many schools' educational programs (Alonzo, Ketterlin-Geller, & Tindal, 2007).

However, CBMs – even those widely used across the United States – often lack the psychometric

properties expected of modern technically-adequate assessments. Although the precision of

instrument development has advanced tremendously in the past 30 years with the advent of more

sophisticated statistical techniques for analyzing tests on an item by item basis rather than relying

exclusively on comparisons of means and standard deviations to evaluate comparability of alternate forms, the world of CBMs has not always kept pace with these statistical advances.

A key feature of assessments designed for progress monitoring is that alternate forms must be as equivalent as possible to allow meaningful interpretation of student performance data across time. Without such cross-form equivalence, changes in scores from one testing session to the next are difficult to attribute to changes in student skill or knowledge. Improvements in student scores may, in fact, be an artifact of the second form of the assessment being easier than the form that was administered first. The advent of more sophisticated data analysis techniques (such as the Rasch modeling used in this study) have made it possible to increase the precision with which we develop and evaluate the quality of assessment tools. In this technical report, we document the development of a progress monitoring assessment in reading, designed for use with students in Kindergarten through Grade 8. This assessment system was developed to be used by elementary school educators interested in monitoring the progress their students make in the area of early reading skill acquisition.

Reading is a somewhat fluid construct, shifting over time from a focus on discrete skills necessary for working with language in both written and spoken forms, to those more complex combinations of skills associated with decoding, and finally to comprehension—a construct in which all prior literacy skills are called upon in the act of reading. Reading assessment typically follows this general progression as well (Reading First, 2006). Assessments of emerging literacy skills evaluate student mastery of the alphabetic principal. These tests measure students' ability to correctly identify and/or produce letters and the sounds associated with them. They measure students' ability to manipulate individual phonemes (sound units) within words, when, for example, students are asked to blend a list of phonemes into a word, segment a word into its

corresponding phonemes, or identify the sounds which begin or end a word (Ritchey & Speece, 2006). The relationships between these constructs in English are well-documented in the research literature. In early readers, ability to identify letter names and the sounds that letters make predicts phonemic awareness. Phonemic awareness predicts fluency, and low fluency is a strong predictor of difficulties in reading (National Reading Panel, 2000).

As student reading skill progresses, it is necessary to use different reading measures to be able to continue to track the progress students are making as developing readers. Oral reading fluency, which measures a combination of students' sight vocabulary and their ability to decode novel words rapidly and accurately, is consistently identified in the literature as one of the best predictors of student reading comprehension in the early grades (Graves, Plasencia-Peinado, Deno, & Johnson, 2005; Hasbrouck & Tindal, 2005). Eventually, however, the information provided by measures of oral reading fluency is limited. Readers attain a fluency threshold that enables them to attend to comprehension rather than decoding (Ehri, 1991, 2005). Once this threshold has been reached, fluency is no longer sensitive to increases in reading comprehension. At this point, one must turn to measures designed to assess comprehension more directly. Although this technical report provides information specifically related to the Word and Passage Reading Fluency measures developed for use in our Progress Monitoring assessment system, it is important to provide an overview of the complete system so readers can understand how the fluency measures fit into the system as a whole.

The Measures that Comprise Our Complete Assessment System

Based on previous empirical studies of early literacy assessment (see, for example, the report from the National Reading Panel, 2000), we decided to develop two measures of alphabetic principle (Letter Names and Letter Sounds), one measure of Phonological Awareness

(Phoneme Segmenting), two measures of fluency (Word Reading Fluency and Passage Reading Fluency), and one measure of comprehension (Multiple Choice Reading Comprehension). The specific technical specifications for the Word and Passage Reading Fluency measure are described in the methods section of this technical report. First, we describe the specific requirements related to the intended use of the measures in our assessment system.

When one is interested in monitoring the progress students are making in attaining specific skills, it is important to have sufficient measures to sample student performance frequently. Thus, our goal was to create 20 alternate forms of each measure in our assessment system at each grade level where the measure was designed to be used (see Table 1). Because these alternate forms are designed to be used for progress monitoring, it is essential that all forms of a particular measure in a given grade level be both sensitive to showing growth in a discrete skill area over short periods of time (1-2 weeks of instruction) and comparable in difficulty. These two equally important needs informed all parts of our measurement development effort: the construction of the technical specifications for each of the measures, the design of the studies used to gather data on item and test functioning, the analytic approaches we used to interpret the results of the pilot studies, and subsequent revision of the measures. In all cases, we sought approaches that would provide us with enough information to evaluate the *sensitivity of the individual measures* to detect small differences in student performance and the *comparability of the different forms* of each measure to allow for meaningful interpretation of growth over time.

Table 1

Distribution of the Measures Across the Grades

	Measure					
Grade	Letter Names	Letter Sounds	Phoneme Segmenting	Word Reading Fluency	Passage Reading Fluency	MC Reading Comp
Kindergarten	X[*]	X	X	X		
Grade 1	X	X	X	X	X	
Grade 2			X	X	X	
Grade 3				X	X	X
Grade 4					X	X
Grade 5					X	X
Grade 6					X	X
Grade 7					X	X
Grade 8					X	X

[*]Note: Each "X" represents 20 alternate forms of the measure for that grade level.

In the section that follows, we describe the piloting methods used to gather information on the relative difficulty of different forms of the fifth-grade passage reading fluency measures.

The Passage Reading Fluency Measure

The Passage Reading measure tests students' ability to read connected narrative text accurately. In this individually-administered measure, students are shown a short narrative passage (approximately 300 words) printed on one side of a single sheet of paper and given 60 seconds to read as much of the passage as they can. A trained assessor follows along as the student reads, indicating on his/her own test protocol each word the student reads incorrectly and prompting the student to go on if he/she hesitates for more than three seconds. Student self-

corrections are counted as correct responses. At the end of the allotted time, the assessor marks

the last word read and calculates the total number of words read correctly to arrive at the

student's score, words read correctly in one minute.

<div align="center">Methods</div>

Our goal was to create 20 alternate forms of each measure at each grade level where the

measure was designed to be used (see Table 1). Because these alternate forms will be used for

progress monitoring, it is essential that all forms of a particular measure in a given grade level be

comparable in difficulty. The methods we used to create these comparable alternate forms are

described in the following section.

Creating Alternate Forms of the Passage Reading Fluency Measures

The passages used in the Passage Reading Fluency measures were all written specifically

for use in this progress monitoring assessment system. All 20 passages were written by graduate

students enrolled in College of Education courses in the spring and summer of 2007 or full time

research associates in the fall and winter of 2007. Passage writers followed written test

specifications (see Appendix A). All passages underwent a four-stage review process. First, the

lead author, who holds a Bachelor's of Arts degree in English and is a National Board for

Professional Teaching Standards certified English teacher, reviewed each passage. She edited the

passages for grammatical correctness and grade-level appropriateness. Then, two graduate

students edited for formatting consistency. They divided each passage into three paragraphs of

approximately even length and checked the readability of each paragraph using the Flesch-

Kinkaid readability index feature available on Microsoft Word. Each sixth-grade paragraph was

adjusted as needed to create three paragraphs with a readability level between 6.4 and 6.6. Each

seventh-grade paragraph was adjusted as needed to create three paragraphs with a readability

level between 7.4 and 7.6. Each eighth-grade paragraph was adjusted as needed to create three

paragraphs with a readability level between 8.4 and 8.6.

Third, each passage was reviewed by a teacher with a minimum of three years' teaching

experience at that particular grade level to ensure the topics, wording, and style were appropriate

for the target grade levels. Finally, passages were sent back to the lead author for a final review

to ensure that they still met test specifications. Once the review process was complete, the

passages were printed on 8 ½ by 11 inch paper for use during the pilot testing process.

Analysis of the Passage Reading Fluency Measures

Unlike the other measures in the Progress Monitoring Assessment System, the Passage

Reading measures are not appropriate for analysis using Item Response Theory, as each form of

the measure would be considered a single 'item' with a score ranging from $0 - 305$. Thus, we

analyzed the Passage Reading Fluency forms using classical statistics. More specifically, we

analyzed both correlations and mean differences between the different forms of the measures

using a repeated measures analysis. To increase the reliability of our score interpretations, we

administered all 20 alternate forms of each grade level passage to the same group of students,

over the course of three days (each student completed six to seven Passage Reading Fluency

forms per day).

<div align="center">Results</div>

The middle school Passage Reading Fluency measures were pilot tested in June of 2008.

We present the results of this pilot testing below.

Results of the Passage Reading Fluency Pilot Testing

Descriptive statistics from the sixth-grade Passage Reading Fluency pilot study are

presented in Table 2. Correlations between each of the 20 forms are presented in Table 3.

Table 2

Descriptive Statistics for Grade 6 Passage Reading Measures

Passage	Topic	*n*	*M*	*SD*
Gr6PRF_1	Finding Money	55	185.70	35.18
Gr6PRF_2	Being Bilingual	55	166.20	38.20
Gr6PRF_3	Flying	55	171.96	34.19
Gr6PRF_4	Shopping Mall	55	186.20	39.59
Gr6PRF_5	New School	55	183.43	37.14
Gr6PRF_6	Cousin Envy	55	164.85	31.40
Gr6PRF_7	Pet Rabbit	55	184.26	32.95
Gr6PRF_8	Lost Keys	55	185.09	40.14
Gr6PRF_9	Singing	55	177.91	33.13
Gr6PRF_10	New Video Game	55	195.72	32.60
Gr6PRF_11	Embarrassment	55	186.17	38.02
Gr6PRF_12	Grandma	55	176.28	33.22
Gr6PRF_13	Sign Language	55	189.20	35.97
Gr6PRF_14	Lost Bike	55	199.74	38.60
Gr6PRF_15	Budget Woes	54	193.92	36.09
Gr6PRF_16	Asking for a Date	54	183.75	37.98
Gr6PRF_17	Going to College	54	203.00	44.55
Gr6PRF_18	Group Project	54	177.62	36.50
Gr6PRF_19	Roller Coasters	54	184.00	37.65
Gr6PRF_20	Saturday Morning	53	201.58	45.77

Table 3
Correlations between Each of the Sixth-Grade Passage Reading Fluency Forms

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	1																			
2	.90**	1																		
3	.88**	.90**	1																	
4	.93**	.92**	.92**	1																
5	.93**	.91**	.91**	.94**	1															
6	.77**	.76**	.76**	.82**	.80**	1														
7	.83**	.82**	.78**	.85**	.87**	.79**	1													
8	.90**	.89**	.88**	.89**	.90**	.80**	.85**	1												
9	.88**	.86**	.85**	.86**	.85**	.76**	.81**	.88**	1											
10	.91**	.88**	.88**	.93**	.90**	.80**	.83**	.89**	.86**	1										
11	.90**	.89**	.90**	91**	.90**	.81**	.87**	.90**	.90**	.92**	1									
12	.91**	.88**	.91**	.92**	.90**	.81**	.87**	.89**	.91**	.91**	.93**	1								
13	.88**	.83**	.87**	.87**	.88**	.75**	.85**	.88**	.90**	.86**	.92**	.92**	1							
14	.89**	.84**	.86**	.89**	.89**	.78**	.83**	.90**	.88**	.91**	.89**	.88**	.90**	1						
15	.88**	.87**	.86**	.89**	.88**	.82**	.86**	.89**	.94**	.90**	.93**	.92**	.93**	.93**	1					
16	.87**	.84**	.83**	.88**	.86**	.80**	.84**	.88**	.90**	.90**	.88**	.92**	.89**	.88**	.92**	1				
17	.89**	.86**	.83**	.90**	.89**	.84**	.84**	.88**	.88**	.92**	.89**	.93**	.88**	.89**	.91**	.92**	1			
18	.85**	.80**	.84**	.87**	.86**	.80**	.85**	.86**	.86**	.87**	.89**	.92**	.90**	.87**	.91**	.90**	.89**	1		
19	.89**	.87**	.87**	.89**	.91**	.84**	.87**	.90**	.88**	.89**	.89**	.91**	.89**	.89**	.91**	.92**	.91**	.92**	1	
20	.89**	.84**	.86**	.87**	.88**	.81**	.85**	.89**	.88**	.91**	.90**	.90**	.91**	.93**	.92**	.88**	.92**	.88**	.90**	1

Descriptive statistics from the seventh-grade Passage Reading Fluency pilot study are presented

in Table 4. Correlations between each of the 20 forms are presented in Table 5.

Table 4
Descriptive Statistics for Grade 7 Passage Reading Measures

Passage	Topic	*n*	*M*	*SD*
Gr7PRF_1	Class President	46	175.71	26.74
Gr7PRF_2	Popular Girl	46	183.60	30.18
Gr7PRF_3	Alone in Home	46	183.40	31.11
Gr7PRF_4	School Rule	46	178.80	30.32
Gr7PRF_5	End of the Year Dance	46	178.53	31.19
Gr7PRF_6	Embrarrsing Moment	46	185.44	31.01
Gr7PRF_7	Getting Braces	46	168.73	32.74
Gr7PRF_8	Cross-Conutry Team	45	173.75	26.20
Gr7PRF_9	Summer Job	45	179.09	32.67
Gr7PRF_10	Colorado Trip	45	163.30	29.40
Gr7PRF_11	Spring Break Trip	44	179.07	31.95
Gr7PRF_12	Having Siblings	44	186.21	45.43
Gr7PRF_13	Last Day at School	44	173.37	30.02
Gr7PRF_14	Summer Plans	44	174.47	31.39
Gr7PRF_15	Adjusting to the U.S.	41	181.10	34.27
Gr7PRF_16	Walking the Dogs	41	157.62	29.65
Gr7PRF_17	Permit Exam	41	170.75	31.71
Gr7PRF_18	Middle School Experience	41	176.10	28.80
Gr7PRF_19	Chatting in Class	41	188.85	39.60
Gr7PRF_20	Relay Race	41	167.40	31.35

Table 5

Correlations between Each of the Seventh-Grade Passage Reading Fluency Forms

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	1																			
2	.91**	1																		
3	.92**	.91**	1																	
4	.90**	.88**	.94**	1																
5	.89**	.93**	.94**	.94**	1															
6	.87**	.93**	.92**	.91**	.95**	1														
7	.91**	.91**	.93**	.92**	.94**	.93**	1													
8	.90**	.83**	.85**	.85**	.88**	.86**	.85**	1												
9	.91**	.91**	.92**	.91**	.93**	.93**	.92**	.94**	1											
10	.92**	.93**	.92**	.91**	.93**	.93**	.93**	.89**	.96**	1										
11	.90**	.91**	.90**	.89**	.90**	.92**	.90**	.82**	.88**	.90**	1									
12	.76**	.69**	.73**	.74**	.73**	.68**	.68**	.72**	.75**	.73**	.73**	1								
13	.92**	.93**	.92**	.89**	.93**	.93**	.93**	.90**	.94**	.94**	.91**	.71**	1							
14	.91**	.91**	.90**	.87**	.91**	.93**	.93**	.86**	.91**	.93**	.89**	.70**	.93**	1						
15	.89**	.90**	.89**	.87**	.91**	.93**	.91**	.85**	.91**	.91**	.88**	.69**	.92**	.91**	1					
16	.88**	.87**	.90**	.87**	.88**	.89**	.88**	.85**	.92**	.91**	.91**	.73**	.92**	.90**	.92**	1				
17	.90**	.90**	.90**	.86**	.91**	.92**	.92**	.86**	.91**	.91**	.91**	.70**	.95**	.95**	.93**	.93**	1			
18	.91**	.89**	.91**	.88**	.91**	.90**	.93**	.88**	.94**	.93**	.91**	.69**	.95**	.91**	.91**	.93**	.94**	1		
19	.87**	.87**	.89**	.88**	.90**	.90**	.93**	.81**	.86**	.90**	.87**	.67**	.90**	.91**	.89**	.88**	.90**	.88**	1	
20	.84**	.89**	.84**	.85**	.87**	.92**	.88**	.86**	.92**	.89**	.86**	.64**	.91**	.88**	.88**	.89**	.91**	.90**	.81**	1

Table 6

Descriptive Statistics for Grade 8 Passage Reading Measures

Passage	Topic	*n*	*M*	*SD*
Gr8PRF_1	Birthday surprise	46	179.44	33.22
Gr8PRF_2	Cold weather	46	180.20	31.97
Gr8PRF_3	Hiking alone	46	186.96	28.08
Gr8PRF_4	Visiting the dunes	41	161.18	33.37
Gr8PRF_5	Diving	46	185.64	34.83
Gr8PRF_6	Irish stories	46	180.47	30.72
Gr8PRF_7	Rafting trip	46	189.00	35.49
Gr8PRF_8	Talent show	45	179.09	34.20
Gr8PRF_9	Ireland trip	44	179.37	26.07
Gr8PRF_10	Making suggestions	44	180.51	31.19
Gr8PRF_11	Asking for a date	45	176.25	34.37
Gr8PRF_12	Birthday	45	177.91	25.71
Gr8PRF_13	Driving lesson	45	177.52	31.34
Gr8PRF_14	Sister's wedding	45	186.11	34.14
Gr8PRF_15	First dance of the year	45	196.95	35.55
Gr8PRF_16	Grandparents	41	186.27	31.78
Gr8PRF_17	Snowshoeing	42	178.12	32.71
Gr8PRF_18	Horseback riding	42	194.05	33.62
Gr8PRF_19	News reporter	42	174.12	39.48
Gr8PRF_20	After school job	42	171.85	33.84

Table 7
Correlations between Each of the Eighth-Grade Passage Reading Fluency Forms

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	1																			
2	.91**	1																		
3	.88**	.88**	1																	
4	.95**	.86**	.87**	1																
5	.91**	..90**	.85**	.82**	1															
6	.91**	.90**	.92**	.89**	.91**	1														
7	.88**	.92**	.87**	.89**	.91**	.88**	1													
8	.88**	.91**	.86**	.88**	.88**	.87**	.92**	1												
9	.90**	.91**	.91**	.86**	.90**	.90**	.90**	.91**	1											
10	.88**	.88**	.90**	.88**	.89**	.92**	.89**	.85**	.87**	1										
11	.83**	.80**	.79**	.79**	.86**	.81**	.86**	.87**	.81**	.83**	1									
12	.86**	.86**	.85**	.88**	.86**	.87**	.87**	.91**	.87**	.92**	.83**	1								
13	.83**	.85**	.84**	.92**	.86**	.89**	.85**	.88**	.85**	.89**	.80**	.92**	1							
14	.85**	.87**	.87**	.90**	.85**	.87**	.91**	.90**	.85**	.90**	.83**	.90**	.89**	1						
15	.86**	.88**	.87**	.86**	.89**	.89**	.91**	.90**	.90**	.89**	.84**	.93**	.90**	.93**	1					
16	.88**	.88**	.90**	.91**	.89**	.92**	.87**	.87**	.88**	.90**	.82**	.90**	.94**	.88**	.91**	1				
17	.76**	.74**	.77**	.80**	.77**	.80**	.73**	.74**	.72**	.75**	.66**	.74**	.78**	.75**	.78**	.80**	1			
18	.89**	.91**	.89**	.92**	.88**	.94**	.91**	.90**	.91**	.88**	.80**	.90**	.93**	.91**	.93**	.94**	.80**	1		
19	.90**	.88**	.91**	.90**	.88**	.93**	.89**	.87**	.89**	.91**	.82**	.93**	.91**	.89**	.91**	.92**	.78**	.93**	1	
20	.88**	.88**	.88**	.92**	.85**	.89**	.88**	.89**	.90**	.88**	.82**	.90**	.i90**	.91**	.89**	.91**	.76**	.93**	.94**	1

Discussion

Creating Alternate Forms of the Passage Reading Fluency Measures

We used the information about passage difficulty to modify the passages and bring them

into closer alignment. First, we identified the nine passages that were most similar in difficulty.

Then, we increased the difficulty of the passages that were too easy (based on more average

words read correctly than the other passages included in the pilot testing) and decreased the

difficulty of the passages that were too challenging (based on fewer average words read correctly

than the other passages included in the pilot testing). The changes made to the sixth-, seventh-,

and eighth-grade passages are indicated in Table 8, 9, and 10, respectively.

Table 8

Changes Made to Grade 6 Passage Reading Measures

Passage	Changes made to the passage
Gr6PRF_1	No changes made
Gr6PRF_2	Made significantly less challenging by changing 'Consuela to 'Maria', 'Cecilia' to "Lisa', and 'Felicia' to 'Sara'
Gr6PRF_3	Made less challenging by changing 'Alexis' to 'Alex', and 'fiery' to 'terrible',
Gr6PRF_4	No changes made
Gr6PRF_5	No changes made
Gr6PRF_6	Made significantly less challenging by changing 'Sean' to 'Shawn', 'furrowed' to 'raised', and 'participate in' to 'do'
Gr6PRF_7	No changes made
Gr8PRF_8	No changes made
Gr6PRF_9	Made slightly less challenging by changing 'Jennifer' to 'Jenny'

Table 8

Changes Made to Grade 5 Passage Reading Measures (Continued)

Passage	Changes made to the passage
Gr6PRF_10	Made slightly more difficult by changing 'walking' to 'sauntering' and 'she told Christopher' to 'she explained to Christopher'
Gr6PRF_11	No changes made
Gr6PRF_12	Made slightly less challenging by changing 'Jessica' to 'Jen'
Gr6PRF_13	No changes made
Gr6PRF_14	Made more difficult by changing 'Tim' to 'Timothy', and 'bike' to 'bicycle'
Gr6PRF_15	Made slightly more difficult by changing 'Sam' to 'Samuel'
Gr6PRF_16	No changes made
Gr6PRF_17	Made more difficult by changing 'Tim' to 'Timothy' and 'Don' to 'Donald', and 'his own room' to 'his own space and plenty of privacy.'
Gr6PRF_18	Made slightly less challenging by changing 'contributed equally to the project' to 'helped equally on the project', and 'Johnson' to 'Jones'
Gr6PRF_19	No changes made
Gr6PRF_20	Made more challenging by changing 'Tom' to 'Richard', and adding 'rumpled' between 'the' and 'clothes' in the first paragraph

Table 9

Changes Made to Grade 7 Passage Reading Measures

Passage	Changes made to the passage
Gr7PRF_1 – Gr7PRF_5	No changes made
Gr7PRF_6	Made more challenging by changing 'ventured' to 'went', 'evening' to 'night', and removing 'authentic' in between.. 'well known for its delicious enchiladas…" in paragraph 1

Table 9

Changes Made to Grade 7 Passage Reading Measures (Continued)

Passage	Changes made to the passage
Gr7PRF_7	Made less difficult by changing 'Victoria' to 'Vicky', 'unfortunate' to 'bad' and 'noticed' to 'saw that' in paragraph 1
Gr7PRF_8	Made slightly less difficult by changing 'stamina' to 'energy' and 'equipped for' to 'made for'
Gr7PRF_9	No changes made
Gr7PRF_10	Retained 'as is', but moved to grade 9 to be used as a benchmarking test.
Gr7PRF_11	No changes made
Gr7PRF_12	Made more challenging by changing 'Rick' to 'Richard', adding the word 'possibly' to the sentence '… sometimes he would climb as high as he possibly could…' and changing 'pure torture' to 'absolute' torture in paragraph 1.
Gr7PRF_13	Made slightly less difficult by changing 'Meredith' to 'Merry'
Gr7PRF_14	Made slightly less difficult by changing 'thoroughly' to 'completely', and 'harvest' to 'pick' in paragraph 1
Gr7PRF_15	No changes made
Gr7PRF_16	Retained 'as is', but moved to grade 9 to be used as a benchmarking test
Gr7PRF_17	Made less difficult by changing 'elude his grasp' to 'slip out of his fingers', removing 'previous' in the fourth line, and changing 'diligently' to 'hard'
Gr7PRF_18	No changes made
Gr7PRF_19	Made slightly more challenging by changing 'Lisa' to 'Elizabeth', 'Anna' to 'Maria', 'good fortune' to 'amazing fortune' and 'moved' to 'scurried' – 7th line
Gr7PRF_20	Made less difficult by changing 'Benjamin' to 'Ben', 'concentrating' to 'He concentrated' – splitting a long sentence into two shorter ones --, and 'teammates' to 'team' and 'managed to make' to 'made' in paragraph 1

Table 10

Changes Made to Grade 8 Passage Reading Measures

Passage	Changes made to the passage
Gr8PRF_1 and Gr8PRF_2	No changes made
Gr8PRF_3	Made slightly more challenging by changing 'anger to 'frustration' in the first sentence and adding the word 'absolutely' in between '..to drive her.. crazy', so it reads "…to drive her absolutely crazy." in the middle of the first paragraph.
Gr8PRF_4	Retained 'as is' but moved to Grade 9 bencharking.
Gr8PRF_5	Made slightly more challenging by changing 'cheers' to 'applause' and changing 'took a deep breath' to 'inhaled deepy'…
Gr8PRF_6	No changes made
Gr8PRF_7	Made more challenging by changing 'Sandy' to 'Samantha' and (in the 2nd paragraph), changing 'Sandy had recruited the chaperones for the trip, both her …' to 'Sandy had been responsible for recruiting the chaparones for the trip. Both her…')
Gr8PRF_8 - Gr8PRF_13	No changes made
Gr8PRF_14	Made slightly more challenging by changing 'Mike' to 'Miguel'
Gr8PRF_15	Made more challenging by changing 'Jimmy' to Jefferson' and in the last paragraph, changing the sentence that reads: Together, they quickly walked toward the cluster of girls who had just entered the room, and circled them, searching for the appropriate candidates…. To 'Together, they quickly walked toward the cluster of girls who had just entered the room. One by one, the girls approached Jefferson and his friends. Soon, the dance floor…'
Gr8PRF_16	Made slightly more challenging by changing 'Annabel' to 'Adrianna'
Gr8PRF_17	No changes made
Gr8PRF_18	Made more challenging by changing 'Sara' to 'Stephanie' and added 'horseback' in front of 'riding academy' in the first paragraph
Gr8PRF_19	Made less difficult by changing 'Janis' to 'Jen' and 'speculation' to 'rumors'
Gr8PRF_20	Made less difficult by changing 'enjoyable' to 'fun', 'fliers' to 'ads', 'clamoring for' to 'needing' and 'noting' to 'seeing'

This revision process resulted in the creation of from 17 – 20 comparable forms at each grade level. In each case, 3 forms were retained for use as Benchmarking assessments, while the remainder were retained for use as Progress Monitoring measures. For the Student Form of the measures, we used size 14 Verdana font (see Appendix B). The Assessor Copy of each of the forms includes administration and scoring directions as well as a smaller version of the student measure (see Appendix C). All forms of the measures were then loaded to the EasyCBM website for web-based access.

Appendix A

Test Specifications for Creating Passage Reading Fluency Measures

Instrument Development: PRF Passages

Goal: To develop a series of reading assessments that can be used for progress monitoring and tracking RTI data for 1st- through 8th-grade students at risk for reading failure.

Overall Task : Write 20 PRF passages (each 300 words long) for 6th – 8th grade students (for a total of 60 PRF passages).

Grade 6 PRF Passages should be written at a 6.5 grade level.
Grade 7 PRF Passages should be written at a 7.5 grade level.
Grade 8 PRF Passages should be written at a 8.5 grade level.

- Each PRF passage should 'stand alone' with no reference to any other ORF passage.
- Each PRF passage should tell a story.
- PRF passages should contain no dialogue.
- Give each PRF passage an appropriate title.
- Include Word Count, on each PRF passage.
- Email each PRF passage to me AS SOON AS YOU COMPLETE IT so I can keep track of our overall numbers.

I've provided an example PRF passage from each of the grade levels we're writing them for on the next few pages of this document. Please familiarize yourself with the basic format / approach, and then jump right into writing!

Thank you!

--Julie

Appendix B
Example Fifth Grade Passage Reading Fluency Test: Student Copy

Jeremy had no idea what he wanted to be when he grew up. It seemed like all of his friends already had career plans. His friend Amanda wanted to be a doctor, and his friend Jimmy wanted to be a police officer. His sister and his brother wanted to be teachers. But none of these jobs seemed right to Jeremy. His mother told him to try to think of a job that was related to his favorite subject in school. But Jeremy didn't think anything he had studied was very exciting. He knew that he had time to decide what kind of job he wanted, but he still wished that he had an idea like everyone else.

One day, Jeremy's class went on a field trip to the science museum. There was a special exhibit there called The Human Brain. Jeremy was excited because he had never learned about the brain before. As soon as Jeremy walked into the museum, he was amazed. There were models and pictures of brains. There was a woman talking about how different parts of the brain have different roles. At another station, a man was talking about how differences in brains are what make people unique.

After his day at the museum, Jeremy knew what he wanted to do when he grew up. He wanted to do research on the brain. Maybe someday he could even work at a museum and teach students everything he had learned. Jeremy couldn't wait to go home and tell his family about his dream.

Appendix C

Example Fifth-Grade Passage Reading Fluency Test: Assessor Copy

1. Place the first passage without numbers in front of the student. Point to any names in the document and tell the student how to say the name. Then say:

"I want you to read this story to me. You'll have 1 minute to read as much as you can. When I say "begin," start reading aloud at the top of the page. Do your best reading. If you have trouble with a word, I'll tell it to you. Do you have any questions? Begin."

2. Start the timer.
3. While the student is reading, mark errors with a slash (/).
4. At 1 minute, say "stop."
5. Mark the last word read with a bracket (]).

Jeremy had no idea what he wanted to be when he grew up. It	14
seemed like all of his friends already had career plans. His friend	26
Amanda wanted to be a doctor, and his friend Jimmy wanted to be a	40
police officer. His sister and his brother wanted to be teachers. But	52
none of these jobs seemed right to Jeremy. His mother told him to try	66
to think of a job that was related to his favorite subject in school. But	81
Jeremy didn't think anything he had studied was very exciting. He	92
knew that he had time to decide what kind of job he wanted, but he	107
still wished that he had an idea like everyone else.	117
One day, Jeremy's class went on a field trip to the science	129
museum. There was a special exhibit there called The Human Brain.	140
Jeremy was excited because he had never learned about the brain	151
before. As soon as Jeremy walked into the museum, he was amazed.	163
There were models and pictures of brains. There was a woman talking	175
about how different parts of the brain have different roles. At another	187
station, a man was talking about how differences in brains are what	199
make people unique.	202
After his day at the museum, Jeremy knew what he wanted to do	215
when he grew up. He wanted to do research on the brain. Maybe	228
someday he could even work at a museum and teach students	239
everything he had learned. Jeremy couldn't wait to go home and tell	251
his family about his dream.	256

Total Words Read: _____ - # of Errors:_____ = CWPM _____

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