

Technical Report #9
System-wide Percentile Ranks for DIBELS Benchmark Assessment

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Abstract

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Subjects

The system-wide percentile ranks are based on all participating students in the DIBELS Web data system as of May 20, 2002. This means there may be some participating schools and districts that had not yet entered their spring assessment scores into the DIBELS Web system and would not be included. Only scores from the 2001 – 2002 academic year were used in creating the system-wide percentile ranks.

While the participating schools and districts are distributed widely across the country, they may not be representative of the country. First, participating schools and districts are more likely to be invested in the important beginning reading core areas of phonemic awareness, phonics, and fluency with connected text (National Reading Panel, 2000). Second, they are more likely to endorse the importance of research-based reading curricula and instruction. Third, they are more likely to engage in screening, progress monitoring, and outcome assessment.

A second issue to consider is that the system-wide percentiles are based on all participating students and districts in the 2001 – 2002 academic year. Some of those schools and districts have been assessing outcomes with DIBELS for 3 or 4 years, others are just beginning to use DIBELS in the 2001 – 2002 academic year.

The number of participating districts and information about the number of participating students in the districts are presented in Table 1. A typical district would have about 60 participating students per grade level, but substantial variability is apparent. Some districts have only 1 or 2 participating students per grade, and some have 2 to 4 thousand participating students per grade level. Although both extremes are rare, they may represent small isolated villages in Alaska to large urban districts.

The number of participating schools and the number of participating students per school are presented in Table 2. A typical school would have about 50 participating students per grade level, ranging from 1 to 700.

Table 1

Number of Districts and Students per District Participating in System-Wide Percentile Ranks

Benchmark Time, Grade	Number of Districts	Number of Participating Students per District						
		Min	Lower Quartile	Median	Upper Quartile	Max	Mean	SD
Fall, Kinder	282	2	33	60	119	4051	134.52	298.19
Winter, Kinder	283	2	34	62	119	4443	137.81	318.61
Spring, Kinder	287	3	33	62	125	4460	137.38	317.18
Fall, First	272	1	33	61	112	4129	135.66	307.68
Winter, First	273	1	32	60	114	4554	137.68	330.25
Spring, First	273	1	32	60	112	4470	135.93	325.74
Fall, Second	112	2	41	60	104	4311	138.34	415.39
Winter, Second	126	3	36	62	104	4589	133.66	416.30
Spring, Second	125	5	39	61	110	4472	134.44	407.97
Fall, Third	83	3	37	62	115	2343	131.82	278.00
Winter, Third	91	5	38	62	118	3149	135.36	342.99
Spring, Third	93	8	40	63	116	3079	134.74	332.01

Table 2

Number of Schools and Students per School Participating in System-Wide Percentile Ranks

Benchmark Time, Grade	Number of Schools	Number of Participating Students per School						
		Min	Lower Quartile	Median	Upper Quartile	Max	Mean	SD
Fall, Kinder	680	1	30	49	71	716	55.79	46.40
Winter, Kinder	693	1	30	50	72	721	56.28	46.89
Spring, Kinder	706	1	30	50	71	715	55.85	46.31
Fall, First	663	1	31	50	73	418	55.66	37.01
Winter, First	676	1	30	50	74	411	55.60	36.98
Spring, First	680	1	31	49	73	412	54.57	35.94
Fall, Second	265	1	32	50	79	401	58.47	42.77
Winter, Second	299	1	28	50	76	428	56.32	41.82
Spring, Second	303	1	26	48	74	397	55.46	40.69
Fall, Third	185	1	28	52	77	476	59.14	50.47
Winter, Third	218	1	25	50	74	471	56.50	47.32
Spring, Third	220	1	27	51	73	445	56.96	45.80

Measures

Dynamic Indicators of Basic Early Literacy Skills (DIBELS) and Curriculum-Based Measurement of oral reading fluency (CBM ORF) comprise the DIBELS Benchmark Assessment materials. The DIBELS benchmark assessment materials and progress-monitoring materials are available for free download to registered users at <http://dibels.uoregon.edu>. Users are requested to register to document usage and to provide a way to alert users to modifications, revisions, and additions to the DIBELS materials. Once users have downloaded and printed a copy of the assessment materials, that copy is used as a photocopy master to create sufficient assessment materials for the school or district. Also available at the DIBELS web site is DIBELS Web, a data entry and reporting service currently available on a fee for service basis. DIBELS Web users can enter scores using a web browser and obtain the class and school reports illustrated in this monograph. The DIBELS Web basic service is currently available for \$1.00 per student per year. Alternatively, schools can create their own reports and summaries to accomplish the purposes described in this monograph.

DIBELS Initial Sound Fluency (ISF) is a standardized, individually administered measure of phonological awareness that assesses a child's ability to recognize and produce the initial sound in an orally presented word (Kaminski & Good, 1996, 1998; Laimon, 1994). The examiner presents four pictures to the child, names each picture, and then asks the child to identify (i.e., point to or say) the picture that begins with the sound produced orally by the examiner. For example, the examiner says, "This is sink, cat, gloves, and hat. Which picture begins with /s/?" and the student points to the correct picture. The child is also asked to orally produce the beginning sound for an orally presented word that matches one of the given pictures. The examiner calculates the amount of time taken to identify/produce the correct sound and converts the score into the number of onsets correct in a minute.

The ISF measure takes about 3 minutes to administer and has over 20 alternate forms to monitor progress. Alternate-form reliability of the ISF measure is .72 in January of kindergarten (Good, Kaminski, Shinn, Bratten, Shinn, & Laimon, in preparation). While that level of

reliability is low with respect to standards for educational decision-making (e.g., Salvia & Ysseldyke, 2001), it is remarkable in a one-minute measure – especially one that can be repeated. By repeating the assessment four times, the resulting average has a reliability of .91 (Nunnally, 1978). The concurrent criterion-related validity of ISF with DIBELS PSF is .48 in January of kindergarten and .36 with the Woodcock-Johnson Psycho-Educational Battery readiness cluster score (Good et al., in preparation). The predictive validity of ISF with respect to spring-of-first-grade reading on CBM ORF is .45, and .36 with the Woodcock-Johnson Psycho-Educational Battery total reading cluster score (Good et al., in preparation).

DIBELS Phoneme Segmentation Fluency (PSF) is a standardized, individually administered test of phonological awareness (Kaminski & Good, 1996). The PSF measure assesses a student's ability to segment three- and four-phoneme words into their individual phonemes fluently. The PSF measure has been found to be a good predictor of later reading achievement and is intended for use with students from the winter of kindergarten to the middle of first grade (Kaminski & Good, 1996). The PSF task is administered by the examiner orally presenting words of three to four phonemes. It requires the student to produce verbally the individual phonemes for each word. For example, the examiner says "sat," and the student says "/s/ /a/ /t/" to receive three possible points for the word. After the student responds, the examiner presents the next word, and the number of correct phonemes produced in one minute determines the final score. The PSF measure takes about 2 minutes to administer and has over 20 alternate forms for monitoring progress. The two-week, alternate-form reliability for the PSF measure is .88 (Kaminski & Good, 1996), and the one-month, alternate-form reliability is .79 in May of kindergarten (Good et al., in preparation). Concurrent criterion validity of PSF is .54 with the Woodcock-Johnson Psycho-Educational Battery readiness cluster score in spring of kindergarten (Good et al., in preparation). The predictive validity of spring-of-kindergarten PSF with (a) winter-of-first-grade DIBELS NWF is .62, (b) spring-of-first-grade Woodcock-Johnson Psycho-Educational Battery total reading cluster score is .68, and (c) spring-of-first-grade CBM ORF is .62 (Good et al., in preparation).

DIBELS Nonsense Word Fluency (NWF) is a standardized, individually administered test of the alphabetic principle – including letter-sound correspondence and of the ability to blend letters into words in which letters represent their most common sounds (Kaminski & Good, 1996). The student is presented an 8.5” x 11” sheet of paper with randomly ordered VC and CVC nonsense words (e.g., sig, rav, ov) and asked to produce verbally the individual letter sound of each letter or verbally produce, or read, the whole nonsense word. For example, if the stimulus word is “vaj” the student could say /v/ /a/ /j/ or say the word /vaj/ to obtain a total of three letter-sounds correct. The student is allowed 1 minute to produce as many letter-sounds as he/she can, and the final score is the number of letter-sounds produced correctly in one minute. Because the measure is fluency based, students receive a higher score if they are phonologically recoding the word and receive a lower score if they are providing letter sounds in isolation. The NWF measure also takes about 2 minutes to administer and has over 20 alternate forms for monitoring progress. The one-month, alternate-form reliability for NWF in January of first grade is .83 (Good et al., in preparation). The concurrent criterion-validity of DIBELS NWF with the Woodcock-Johnson Psycho-Educational Battery-Revised readiness cluster score is .36 in January and .59 in February of first grade (Good et al., in preparation). The predictive validity of DIBELS NWF in January of first grade with (a) CBM ORF in May of first grade is .82, (b) CBM ORF in May of second grade is .60, (c) Woodcock-Johnson Psycho-Educational Battery total reading cluster score is .66 (Good et al., in preparation).

DIBELS Letter Naming Fluency (LNF) is a standardized, individually administered test that provides a measure of risk. Students are presented with a upper- and lower-case letters arranged in a random order and are asked to name as many letters as they can. Students are told if they do not know a letter they will be told the letter. The student is allowed 1 minute to produce as many letter names as he/she can, and the score is the number of letters named correctly in 1 minute. Students are considered at risk for difficulty achieving early literacy benchmark goals if they perform in the lowest 20% of students in their district. That is, below the 20th percentile using local district norms. Students are considered at some risk if they perform

between the 20th and 40th percentile using local norms. Students are considered at low risk if they perform above the 40th percentile using local norms. The 1-month, alternate-form reliability of LNF is .88 in kindergarten (Good et al., in preparation). The median criterion-related validity of LNF with the Woodcock-Johnson Psycho-Educational Battery-Revised readiness cluster standard score is .70 in kindergarten (Good et al., in preparation). The predictive validity of kindergarten LNF with first-grade Woodcock-Johnson Psycho-Educational Battery-Revised reading cluster standard score is .65 and .71 with first-grade CBM reading (Good et al., in preparation).

Curriculum-Based Measurement of Oral Reading Fluency (CBM ORF) is a standardized procedure to assess accuracy and fluency with connected text. A version of CBM ORF has been published as The Test of Reading Fluency (TORF) (Children's Educational Services, 1987). The TORF is a standardized set of passages and administration procedures designed to (a) identify children who may need further intensive assessment and (b) measure growth in reading skills (Children's Educational Services, 1987, p. 1). Passages were calibrated for each grade level, and student performance is measured by having students read each of three passages aloud for one minute. Words omitted, substituted, and hesitations of more than three seconds are scored as errors. Words self-corrected within three seconds are scored as accurate. The median correct words per minute from the three passages is selected as the oral reading fluency rate.

A series of studies has confirmed the technical adequacy of the TORF. Test-retest reliabilities of elementary students ranged from .92 to .97; alternate-form reliability of different reading passages drawn from the same level ranged from .89 to .94 (Tindal, Marston, & Deno, 1983). Criterion-related validity studied in eight separate studies in the 1980s reported coefficients ranging from .52-.91 (Good & Jefferson, 1998).

DIBELS™ Oral Reading Fluency (DORF) is a set of oral reading fluency passages and directions for first through third grades. The DORF passages were developed to be consistent in readability, reliability, and validity to the TORF passages. Procedures similar to the standardized CBM oral reading fluency administration and scoring procedures are used for administration and

scoring of the DORF passages (Good & Kaminski, 2002). The Spache readability was used to revise and refine passages to keep the readability in a target range for each grade, but a broad range of readability estimates were considered in developing the passages. The target readability for the DORF passages is end of the selected grade or the beginning of the next grade. For first grade, target Spache readabilities were 2.0, 2.1, 2.2, or 2.3. For second grade, target Spache readabilities were 2.4, 2.5, 2.6, or 2.7. For third grade, target Spache readabilities were 2.8, 2.9, 3.0, or 3.1. Across first through third grade, the Spache readabilities seemed to provide an index of relative difficulty, but it is unclear that any of the readability formulas accurately indicated the actual grade level of the material. For example, across first through third grades, the mean Spache readabilities were 2.2, 2.6, and 2.9, respectively. In comparison, the mean Flesch readabilities for the same passages were 1.7, 3.2, and 4.7, respectively. While it is clear that the third grade passages are more difficult than the first grade passages, it is not clear which estimate of the readability, 2.9 or 4.7 best indexes the passages to grade level expectations. The DORF passages were developed primarily to have appropriate and consistent readability for a grade level. Benchmark expectations were then set with respect to external, state proficiency test criteria.

In a study of the reliability and validity of the second grade DORF passages, the median alternate-form reliability coefficient for the DORF passages was .94 (Good, Kaminski, Smith, & Bratten, 2001). The median alternate-form reliability coefficient for the TORF passages was .95. The concurrent validity with the TORF passages ranged from .92 to .96 with a median concurrent validity with the TORF of .95. For the revised DORF passages, the TORF passage mean was predicted to be 1 point higher than the DORF passage mean.

In the 2001-2002 academic year for which these system-wide percentile ranks are calculated, the DORF 5th Edition was available and recommended for use by participating school districts. Some districts elected to use the corresponding TORF passages due to prior arrangements for use. Exact information on the numbers of districts using DORF and TORF passages are not available. A rough guess is that two thirds of the districts used DORF passages

for the CBM benchmark assessment, and one third used TORF or their local curriculum passages.

Results

Descriptive statistics for each of the DIBELS measures by grade and assessment time are presented in Tables 3 and 4. Some interesting patterns are apparent. First, for each measure there is a systematic increase in performance over time, except for spring of kindergarten to fall of first grade. From spring of kindergarten to fall of first grade the same measures are administered, and on each measure there is a decrease in median performance of 3 to 7 points. Because the same measures are used, the decrease seems interpretable as summer regression. The lack of median growth from spring of first to fall of second, and the median decrease from spring of second to fall of third are not as interpretable because there is also a confounded increase in the difficulty of the measurement material.

Another potential interpretation of the difference between the spring of kindergarten and fall of first grade is the effects of school-wide reading improvement and early intervention efforts. The kindergarten and first grade groups are different cohorts of children. The 2000 – 2001 kindergarten outcomes for the first grade cohort may have been lower than the spring of kindergarten performance in Table 2. The schools may have revised and improved their early literacy instruction based on their kindergarten outcomes, and the current kindergarten cohort may have higher skills than the first grade cohort had.

Table 3

Descriptive Statistics of DIBELS Measures for Kindergarten and First Grade by Benchmark Assessment Time

Benchmark Time	Measure	Number of Children	Min	Lower Quartile	Median	Upper Quartile	Max	Mean	SD
Kindergarten									
Fall	LNF	37396	0	3	12	26	110	16.03	15.25
	ISF	37849	0	5	10	17	150	12.27	10.69
Winter	LNF	38766	0	18	32	43	255	31.41	17.67
	ISF	38710	0	13	21	30	255	22.80	14.93
	PSF	38715	0	9	26	44	255	27.75	20.57
Spring	NWF	13221	0	7	17	29	199	20.10	17.83
	LNF	39237	0	32	45	57	255	44.48	18.54
	PSF	39325	0	28	44	54	216	40.56	19.34
	NWF	39169	0	18	30	42	255	32.54	22.45
First Grade									
Fall	LNF	36650	0	28	41	53	255	41.18	18.47
	PSF	36865	0	21	38	49	255	35.22	18.94
	NWF	36708	0	16	28	40	255	30.81	22.45
Winter	PSF	37455	0	36	46	56	149	45.01	16.03
	NWF	37473	0	36	49	66	255	54.27	28.51
	CBM	37410	0	13	27	51	742	36.89	33.14
Spring	PSF	36112	0	42	51	61	255	50.68	14.65
	NWF	36834	0	47	65	89	255	71.41	34.58
	CBM	37017	0	31	54	84	778	60.65	37.99

Table 4

*Descriptive Statistics of DIBELS Measures for Second and Third Grade by Benchmark**Assessment Time*

Benchmark Time	Measure	Number of Children	Min	Lower Quartile	Median	Upper Quartile	Max	Mean	SD
Second Grade									
Fall	CBM	15494	0	30	55	83	404	59.63	37.45
Winter	CBM	16841	0	50	80	107	600	80.44	42.35
Spring	CBM	16805	0	75	100	126	714	100.85	42.92
Third Grade									
Fall	CBM	10941	0	59	87	115	246	87.69	40.01
Winter	CBM	12318	0	76	100	128	279	100.95	40.17
Spring	CBM	12531	0	93	120	145	326	118.53	40.40

System-wide percentile ranks for each of the DIBELS measures by grade and benchmark time are provided in Tables 5, 6, and 7. Districts are encouraged to assess and enter all children at each grade level for whom reading in English is an instructional goal. The intent is to include children who are eligible for special education services as long as reading in an Individualized Educational Plan (IEP) goal. The intent is also to include children with different language backgrounds for whom the instructional goal is to read in English. If the instructional goal is for a child to learn to read initially in another language and at some point transition to English reading, assessment with DIBELS in English would not be recommended.

For each measure, the percentile rank of a target score was computed by adding to percent of children obtaining scores below the target score to one half of the percent of children obtaining the target score (Salvia & Ysseldyke, 2001, p. 95). For example, to obtain the percentile rank for a score of 5 on the DIBELS ISF measure in fall of kindergarten, 23.55 percent of children scored below 5, and 5.68 percent obtained a score of 5. The percentile rank of 5 was then computed as $23.55 + 0.5 * 5.68 = 26$.

Table 5

System-wide Percentile Ranks for Kindergarten DIBELS Benchmark Assessment

Score	Kindergarten Percentile Rank								
	Fall		Winter				Spring		
	LNF	ISF	LNF	ISF	PSF	NWF	LNF	PSF	NWF
0	5	3	1	1	4	6	<1	1	2
1	14	8	2	3	9	12	1	2	4
2	20	11	4	4	11	14	1	3	4
3	25	15	5	5	13	16	1	3	5
4	29	21	6	6	14	18	1	4	6
5	33	26	7	8	16	21	2	5	7
6	36	32	8	9	18	23	2	6	8
7	39	37	10	11	20	25	3	7	9
8	42	42	11	14	22	27	3	8	10
9	44	47	12	16	25	29	3	9	11
10	46	52	14	18	27	32	4	10	12
11	48	56	15	21	29	34	4	11	14
12	50	60	16	23	31	37	5	12	15
13	52	63	18	26	33	40	5	13	17
14	54	66	19	29	34	42	6	14	18
15	56	70	21	32	36	44	7	15	20
16	58	72	22	35	38	47	7	16	22
17	60	75	23	38	39	49	8	17	23
18	62	77	25	41	40	52	9	17	25
19	64	79	26	44	41	54	10	18	27
20	65	81	27	48	43	57	10	19	29
21	67	83	29	51	44	59	11	19	31
22	68	85	30	54	45	61	12	20	33
23	70	86	32	56	46	63	13	21	35
24	72	88	34	60	48	66	14	22	37
25	73	89	36	62	49	68	15	22	40
26	75	90	38	65	50	70	16	23	42
27	77	91	40	68	51	72	17	24	44
28	78	92	42	70	52	74	19	25	47
29	80	93	44	72	54	75	20	26	49
30	81	93	46	74	55	77	22	27	51
31	83	94	48	76	56	79	23	28	53
32	84	95	51	78	58	80	25	29	55
33	85	95	53	80	59	81	27	31	57
34	86	96	55	82	60	83	28	32	59
35	87	96	57	83	62	84	30	33	61

(Table continues)

Table 5 (Continued)

Score	Kindergarten Percentile Rank								
	Fall			Winter			Spring		
	LNF	ISF	LNF	ISF	PSF	NWF	LNF	PSF	NWF
36	88	96	60	85	63	85	31	35	63
37	89	97	62	86	65	86	33	37	65
38	90	97	65	87	66	87	35	38	67
39	91	97	67	88	68	88	37	40	69
40	92	98	70	89	69	89	40	42	71
41	93	98	72	90	70	90	42	44	73
42	93	98	74	91	72	91	44	46	75
43	94	98	76	92	73	92	46	49	76
44	95	98	78	92	75	92	48	51	78
45	95	99	79	93	76	93	49	53	79
46	96	99	81	94	77	93	52	55	80
47	96	99	82	94	79	94	54	58	81
48	97	99	84	95	80	94	56	60	82
49	97	99	85	95	81	95	59	63	83
50	97	99	87	95	83	95	62	65	84
51	97	99	88	96	84	95	64	68	85
52	98	99	89	96	85	96	66	70	86
53	98	99	89	97	86	96	68	72	86
54	98	99	90	97	88	96	70	75	87
55	98	99	91	97	89	96	71	77	88
56	98	>99	92	97	90	97	73	79	89
57	99	>99	92	98	91	97	75	81	89
58	99	>99	93	98	92	97	76	82	90
59	99	>99	94	98	93	97	78	83	91
60	99	>99	94	98	93	97	80	85	91
61	99	>99	95	98	94	98	82	86	92
62	99	>99	95	98	95	98	83	87	92
63	99	>99	96	98	95	98	84	89	93
64	99	>99	96	99	96	98	85	90	93
65	99	>99	96	99	96	98	86	91	93
66	99	>99	97	99	97	98	88	92	94
67	>99	>99	97	99	97	98	89	93	94
68	>99	>99	97	99	97	98	90	93	94
69	>99	>99	98	99	98	98	91	94	94
70	>99	>99	98	99	98	99	92	95	95

(Table continues)

Table 5 (Continued)

Score	Kindergarten Percentile Rank								
	Fall			Winter			Spring		
	LNF	ISF	LNF	ISF	PSF	NWF	LNF	PSF	NWF
71	>99	>99	98	99	98	99	93	96	95
72	>99	>99	98	99	99	99	94	97	95
73	>99	>99	98	99	99	99	95	98	96
74	>99	>99	99	99	99	99	95	99	96
75	>99	>99	99	99	>99	99	96	>99	96
76	>99	>99	99	99	>99	99	96	>99	96
77	>99	>99	99	99	>99	99	97	>99	96
78	>99	>99	99	99	>99	99	97	>99	96
79	>99	>99	99	99	>99	99	97	>99	97
80	>99	>99	99	99	>99	99	98	>99	97
81	>99	>99	99	>99	>99	99	98	>99	97
82	>99	>99	>99	>99	>99	99	98	>99	97
83	>99	>99	>99	>99	>99	99	98	>99	97
84	>99	>99	>99	>99	>99	99	99	>99	97
85	>99	>99	>99	>99	>99	99	99	>99	97
86	>99	>99	>99	>99	>99	99	99	>99	97
87	>99	>99	>99	>99	>99	99	99	>99	98
88	>99	>99	>99	>99	>99	99	99	>99	98
89	>99	>99	>99	>99	>99	99	99	>99	98
90	>99	>99	>99	>99	>99	99	99	>99	98
91	>99	>99	>99	>99	>99	99	99	>99	98
92	>99	>99	>99	>99	>99	99	99	>99	98
93	>99	>99	>99	>99	>99	99	>99	>99	98
94	>99	>99	>99	>99	>99	99	>99	>99	98
95	>99	>99	>99	>99	>99	99	>99	>99	98
96	>99	>99	>99	>99	>99	99	>99	>99	98
97	>99	>99	>99	>99	>99	99	>99	>99	98
98	>99	>99	>99	>99	>99	99	>99	>99	98
99	>99	>99	>99	>99	>99	99	>99	>99	98
100	>99	>99	>99	>99	>99	99	>99	>99	98
101	>99	>99	>99	>99	>99	99	>99	>99	98
102	>99	>99	>99	>99	>99	99	>99	>99	98
103	>99	>99	>99	>99	>99	99	>99	>99	99
104	>99	>99	>99	>99	>99	99	>99	>99	99
105	>99	>99	>99	>99	>99	99	>99	>99	99

(Table continues)

Table 5 (Continued)

Table 6

System-wide Percentile Ranks for First Grade DIBELS Benchmark Assessment

First Grade Percentile Ranks									
Score	Fall			Winter			Spring		
	LNF	PSF	NWF	PSF	NWF	ORF	PSF	NWF	ORF
0	<1	2	2	<1	<1	1	<1	<1	<1
1	1	3	4	1	1	3	<1	<1	1
2	1	4	5	1	1	4	<1	<1	1
3	1	5	6	1	1	5	<1	<1	1
4	2	6	7	1	1	6	<1	<1	1
5	2	7	8	1	1	8	1	<1	1
6	2	9	10	2	1	10	1	<1	2
7	3	10	11	2	1	12	1	1	2
8	3	12	12	2	2	14	1	1	3
9	4	13	14	3	2	16	1	1	3
10	4	14	15	3	2	18	1	1	4
11	5	15	17	3	2	20	1	1	5
12	6	17	18	4	3	22	1	1	5
13	7	18	20	4	3	24	1	1	6
14	8	19	22	5	3	26	2	1	7
15	9	19	23	5	4	29	2	1	8
16	9	20	25	5	4	31	2	2	9
17	11	21	27	6	4	33	2	2	10
18	12	22	29	6	5	35	2	2	11
19	13	23	31	7	5	37	3	2	12
20	14	24	33	7	6	39	3	2	13
21	15	25	35	8	7	41	3	3	14
22	17	26	37	8	7	43	3	3	15
23	18	27	39	9	8	44	4	3	16
24	19	28	42	10	9	46	4	4	17
25	20	29	44	10	10	48	5	4	18
26	22	30	46	11	11	49	5	4	20
27	23	31	48	12	12	50	6	5	21
28	25	33	51	13	14	52	6	5	22
29	26	34	53	14	15	53	7	6	23
30	28	36	55	16	16	54	8	7	24
31	30	37	57	17	18	56	9	7	25
32	31	39	60	19	19	57	10	8	26
33	33	41	62	20	21	58	11	9	27
34	35	43	64	22	22	60	12	10	29
35	37	45	66	24	24	61	13	11	30

(Table continues)

Table 6 (Continued)

Score	First Grade Percentile Ranks									
	Fall			Winter				Spring		
	LNF	PSF	NWF	PSF	NWF	ORF	PSF	NWF	ORF	
36	39	47	68	26	25	62	15	12	31	
37	41	49	69	28	27	63	16	13	32	
38	43	51	71	30	29	64	17	14	33	
39	45	53	73	33	31	65	19	15	34	
40	47	56	75	35	33	66	21	16	35	
41	49	58	76	38	34	67	23	17	36	
42	51	60	78	40	36	68	25	18	37	
43	53	63	79	43	38	69	28	20	38	
44	55	65	80	45	40	70	30	21	39	
45	57	67	81	48	42	71	32	22	40	
46	59	70	82	51	44	71	35	23	41	
47	61	72	83	53	46	72	38	25	43	
48	64	74	84	56	48	73	41	26	44	
49	66	76	85	59	50	74	43	27	45	
50	68	78	86	61	51	74	46	29	46	
51	70	80	86	64	53	75	49	30	47	
52	72	81	87	67	55	76	52	31	48	
53	74	83	88	69	56	76	55	33	49	
54	76	84	89	72	58	77	58	34	50	
55	78	86	89	74	60	78	60	36	51	
56	79	87	90	76	61	78	63	37	52	
57	81	88	90	78	63	79	66	39	53	
58	82	89	91	80	65	79	69	40	54	
59	83	91	92	82	66	80	71	42	55	
60	85	92	92	83	68	80	74	43	56	
61	86	93	92	85	69	81	76	45	57	
62	87	93	93	86	70	81	78	46	58	
63	88	94	93	88	71	82	80	47	59	
64	89	95	93	89	73	82	82	49	59	
65	90	96	94	90	74	83	84	50	60	
66	91	96	94	91	75	83	85	52	61	
67	92	97	94	92	76	84	87	53	62	
68	93	97	94	93	77	84	88	54	63	
69	94	97	95	94	78	85	90	56	64	
70	94	98	95	95	79	85	91	57	65	

(Table continues)

Table 6 (Continued)

Score	First Grade Percentile Ranks									
	Fall				Winter				Spring	
	LNF	PSF	NWF	PSF	NWF	ORF	PSF	NWF	ORF	
71	95	98	95	95	80	85	92	58	65	
72	96	98	95	96	81	86	93	60	66	
73	96	99	95	96	82	86	95	61	67	
74	96	99	96	97	82	86	97	62	68	
75	97	99	96	97	83	87	99	63	68	
76	97	99	96	98	84	87	99	64	69	
77	97	99	96	98	84	88	99	65	70	
78	98	99	96	99	85	88	99	66	70	
79	98	>99	96	>99	85	88	99	67	71	
80	98	>99	97	>99	86	89	99	68	72	
81	99	>99	97	>99	86	89	99	69	73	
82	99	>99	97	>99	86	89	99	69	73	
83	99	>99	97	>99	87	90	>99	70	74	
84	99	>99	97	>99	87	90	>99	71	75	
85	99	>99	97	>99	88	90	>99	72	75	
86	99	>99	97	>99	88	91	>99	73	76	
87	99	>99	97	>99	89	91	>99	74	77	
88	99	>99	97	>99	89	91	>99	75	77	
89	99	>99	98	>99	89	91	>99	75	78	
90	99	>99	98	>99	90	92	>99	76	79	
91	>99	>99	98	>99	90	92	>99	77	79	
92	>99	>99	98	>99	90	92	>99	77	80	
93	>99	>99	98	>99	90	93	>99	78	80	
94	>99	>99	98	>99	91	93	>99	78	81	
95	>99	>99	98	>99	91	93	>99	79	82	
96	>99	>99	98	>99	91	93	>99	80	82	
97	>99	>99	98	>99	92	93	>99	80	83	
98	>99	>99	98	>99	92	94	>99	81	83	
99	>99	>99	98	>99	92	94	>99	81	84	
100	>99	>99	98	>99	92	94	>99	82	84	
101	>99	>99	98	>99	93	94	>99	82	85	
102	>99	>99	98	>99	93	95	>99	83	85	
103	>99	>99	98	>99	93	95	>99	83	86	
104	>99	>99	99	>99	93	95	>99	84	86	
105	>99	>99	99	>99	94	95	>99	84	87	

(Table continues)

Table 6 (Continued)

First Grade Percentile Ranks									
Score	Fall			Winter			Spring		
	LNF	PSF	NWF	PSF	NWF	ORF	PSF	NWF	ORF
106	>99	>99	99	>99	94	95	>99	84	87
107	>99	>99	99	>99	94	95	>99	85	88
108	>99	>99	99	>99	94	96	>99	85	88
109	>99	>99	99	>99	95	96	>99	86	88
110	>99	>99	99	>99	95	96	>99	86	89
111	>99	>99	99	>99	95	96	>99	86	89
112	>99	>99	99	>99	95	96	>99	87	90
113	>99	>99	99	>99	95	96	>99	87	90
114	>99	>99	99	>99	95	96	>99	88	90
115	>99	>99	99	>99	96	97	>99	88	91
116	>99	>99	99	>99	96	97	>99	88	91
117	>99	>99	99	>99	96	97	>99	89	91
118	>99	>99	99	>99	96	97	>99	89	92
119	>99	>99	99	>99	96	97	>99	89	92
120	>99	>99	99	>99	96	97	>99	90	92
121	>99	>99	99	>99	96	97	>99	90	93
122	>99	>99	99	>99	96	97	>99	90	93
123	>99	>99	99	>99	97	97	>99	90	93
124	>99	>99	99	>99	97	98	>99	91	93
125	>99	>99	99	>99	97	98	>99	91	94
126	>99	>99	99	>99	97	98	>99	91	94
127	>99	>99	99	>99	97	98	>99	92	94
128	>99	>99	99	>99	97	98	>99	92	94
129	>99	>99	99	>99	97	98	>99	92	95
130	>99	>99	99	>99	97	98	>99	93	95
131	>99	>99	99	>99	97	98	>99	93	95
132	>99	>99	99	>99	98	98	>99	93	95
133	>99	>99	>99	>99	98	98	>99	93	95
134	>99	>99	>99	>99	98	98	>99	94	95
135	>99	>99	>99	>99	98	98	>99	94	96
136	>99	>99	>99	>99	98	98	>99	94	96
137	>99	>99	>99	>99	98	99	>99	94	96
138	>99	>99	>99	>99	98	99	>99	94	96
139	>99	>99	>99	>99	98	99	>99	95	96
140	>99	>99	>99	>99	98	99	>99	95	96

(Table continues)

Table 6 (Continued)

Score	First Grade Percentile Ranks									
	Fall				Winter				Spring	
	LNF	PSF	NWF	PSF	NWF	ORF	PSF	NWF	ORF	
141	>99	>99	>99	>99	98	99	>99	96	97	
142	>99	>99	>99	>99	99	99	>99	96	97	
143	>99	>99	>99	>99	99	99	>99	97	97	
144	>99	>99	>99	>99	99	99	>99	97	97	
145	>99	>99	>99	>99	99	99	>99	97	97	
146	>99	>99	>99	>99	99	99	>99	97	97	
147	>99	>99	>99	>99	99	99	>99	97	97	
148	>99	>99	>99	>99	99	99	>99	97	98	
149	>99	>99	>99	>99	99	99	>99	97	98	
150	>99	>99	>99	>99	99	99	>99	97	98	
151	>99	>99	>99	>99	99	99	>99	97	98	
152	>99	>99	>99	>99	99	99	>99	98	98	
153	>99	>99	>99	>99	99	99	>99	98	98	
154	>99	>99	>99	>99	99	99	>99	98	98	
155	>99	>99	>99	>99	99	99	>99	98	98	
156	>99	>99	>99	>99	99	99	>99	98	98	
157	>99	>99	>99	>99	99	99	>99	98	98	
158	>99	>99	>99	>99	99	99	>99	98	98	
159	>99	>99	>99	>99	99	99	>99	98	98	
160	>99	>99	>99	>99	>99	99	>99	98	99	
161	>99	>99	>99	>99	>99	>99	>99	98	99	
162	>99	>99	>99	>99	>99	>99	>99	98	99	
163	>99	>99	>99	>99	>99	>99	>99	98	99	
164	>99	>99	>99	>99	>99	>99	>99	98	99	
165	>99	>99	>99	>99	>99	>99	>99	99	99	
166	>99	>99	>99	>99	>99	>99	>99	99	99	
167	>99	>99	>99	>99	>99	>99	>99	99	99	
168	>99	>99	>99	>99	>99	>99	>99	99	99	
169	>99	>99	>99	>99	>99	>99	>99	99	99	
170	>99	>99	>99	>99	>99	>99	>99	99	99	
171	>99	>99	>99	>99	>99	>99	>99	99	99	
172	>99	>99	>99	>99	>99	>99	>99	99	99	
173	>99	>99	>99	>99	>99	>99	>99	99	99	
174	>99	>99	>99	>99	>99	>99	>99	99	99	
175	>99	>99	>99	>99	>99	>99	>99	99	99	

(Table continues)

Table 6 (Continued)

Table 7

System-wide Percentile Ranks for Second and Third Grade DIBELS Benchmark Assessment

Oral Reading Fluency Percentile Rank						
Score	Second Grade			Third Grade		
	Fall	Winter	Spring	Fall	Winter	Spring
0	<1	<1	<1	<1	<1	<1
1	1	<1	<1	<1	<1	<1
2	1	1	<1	<1	<1	<1
3	2	1	<1	1	<1	<1
4	2	1	<1	1	<1	<1
5	2	1	<1	1	<1	<1
6	3	1	<1	1	1	<1
7	3	2	1	1	1	<1
8	4	2	1	1	1	<1
9	5	2	1	2	1	<1
10	5	3	1	2	1	<1
11	6	3	1	2	1	<1
12	7	3	1	2	1	<1
13	8	4	1	2	2	1
14	9	4	1	3	2	1
15	10	4	1	3	2	1
16	11	5	2	3	2	1
17	11	5	2	4	2	1
18	12	6	2	4	3	1
19	13	6	2	4	3	1
20	14	6	2	5	3	1
21	15	7	2	5	3	1
22	16	8	3	5	3	1
23	17	8	3	6	3	1
24	18	9	3	6	4	1
25	19	9	3	7	4	2
26	20	10	3	7	4	2
27	21	11	4	7	4	2
28	23	11	4	8	4	2
29	24	12	4	8	5	2
30	25	13	4	8	5	2
31	26	13	5	9	5	2
32	27	14	5	9	5	2
33	28	15	5	9	5	3
34	29	15	5	10	6	3
35	30	16	6	10	6	3

(Table continues)

Table 7 (Continued)

Oral Reading Fluency Percentile Rank						
Score	Second Grade			Third Grade		
	Fall	Winter	Spring	Fall	Winter	Spring
36	31	16	6	11	6	3
37	32	17	6	11	6	3
38	33	18	7	12	7	3
39	34	18	7	12	7	3
40	35	19	7	12	7	4
41	37	19	8	13	8	4
42	38	20	8	13	8	4
43	39	21	8	14	8	4
44	40	21	8	14	9	4
45	41	22	9	15	9	4
46	42	22	9	15	9	5
47	43	23	9	16	10	5
48	44	24	10	17	10	5
49	44	24	10	17	10	5
50	45	25	11	18	11	5
51	46	26	11	19	11	6
52	47	27	12	19	12	6
53	48	28	12	20	12	6
54	49	28	12	21	13	6
55	50	29	13	22	13	7
56	51	30	13	22	14	7
57	52	31	14	23	14	7
58	53	32	15	24	15	7
59	54	32	15	25	15	8
60	54	33	15	25	16	8
61	55	34	16	26	17	8
62	56	35	16	27	17	8
63	57	36	17	28	18	9
64	58	37	18	28	18	9
65	59	37	18	29	19	9
66	60	38	19	30	19	10
67	61	39	19	31	20	10
68	62	40	20	32	20	11
69	63	41	21	33	21	11
70	64	41	21	34	21	11

(Table continues)

Table 7 (Continued)

Oral Reading Fluency Percentile Rank						
Score	Second Grade			Third Grade		
	Fall	Winter	Spring	Fall	Winter	Spring
71	65	42	22	35	22	12
72	66	43	23	35	23	12
73	67	44	24	36	23	13
74	68	45	24	37	24	13
75	69	45	25	38	25	14
76	69	46	26	39	25	14
77	70	47	27	40	26	15
78	71	48	28	41	27	15
79	72	49	29	42	28	16
80	73	50	30	42	28	16
81	73	51	30	44	29	17
82	74	52	31	45	30	17
83	75	53	32	46	31	18
84	75	54	33	47	32	18
85	76	55	34	48	33	19
86	77	56	35	49	34	20
87	78	57	36	50	35	20
88	79	58	37	51	36	21
89	79	59	38	52	37	22
90	80	60	39	53	38	23
91	81	61	40	54	39	23
92	81	62	42	55	40	24
93	82	63	43	56	41	25
94	83	64	44	57	42	26
95	83	65	45	58	44	27
96	84	66	46	59	45	28
97	85	67	47	60	46	28
98	85	68	48	61	47	29
99	86	69	49	62	48	30
100	86	70	50	63	49	31
101	86	70	51	63	50	31
102	87	71	52	64	51	32
103	87	72	53	65	53	33
104	88	73	54	66	54	34
105	88	74	56	67	55	35

(Table continues)

Table 7 (Continued)

Oral Reading Fluency Percentile Rank						
Score	Second Grade			Third Grade		
	Fall	Winter	Spring	Fall	Winter	Spring
106	89	74	57	68	56	36
107	89	75	58	69	57	37
108	90	76	59	70	58	38
109	90	76	60	71	59	39
110	90	77	61	71	60	40
111	91	78	62	72	61	41
112	91	79	63	73	62	42
113	91	80	64	73	62	43
114	91	80	65	74	63	44
115	92	81	66	75	64	45
116	92	81	67	76	65	46
117	92	82	68	77	66	47
118	93	83	69	78	67	48
119	93	83	70	79	67	49
120	93	84	71	79	68	51
121	94	84	71	80	69	52
122	94	85	72	81	70	53
123	94	85	73	81	71	54
124	94	86	74	82	72	55
125	95	86	74	83	73	56
126	95	87	75	84	74	57
127	95	87	76	84	74	58
128	95	88	77	85	75	59
129	96	88	77	86	76	61
130	96	88	78	86	77	62
131	96	89	78	87	77	63
132	96	89	79	87	78	64
133	96	90	80	88	79	64
134	96	90	81	88	80	65
135	96	90	81	88	80	66
136	97	91	82	89	81	67
137	97	91	83	89	81	68
138	97	92	84	90	82	69
139	97	92	84	90	83	70
140	97	92	84	91	83	71

(Table continues)

Table 7 (Continued)

Oral Reading Fluency Percentile Rank						
Score	Second Grade			Third Grade		
	Fall	Winter	Spring	Fall	Winter	Spring
141	97	92	85	91	84	72
142	97	93	86	91	85	73
143	97	93	86	92	85	74
144	97	93	87	92	86	75
145	98	93	87	92	86	75
146	98	94	88	93	87	76
147	98	94	88	93	87	77
148	98	94	88	93	88	78
149	98	95	89	93	88	79
150	98	95	89	94	89	79
151	98	95	90	94	90	80
152	98	95	90	94	90	81
153	98	95	91	95	91	81
154	98	96	91	95	91	82
155	99	96	91	95	91	82
156	99	96	92	95	92	83
157	99	96	92	95	92	84
158	99	96	92	96	93	84
159	99	97	93	96	93	85
160	99	97	93	96	93	85
161	99	97	93	96	93	86
162	99	97	94	96	94	86
163	99	97	94	97	94	87
164	99	97	94	97	94	87
165	99	97	94	97	95	88
166	99	97	95	97	95	88
167	99	98	95	97	95	89
168	99	98	95	97	95	89
169	99	98	95	97	96	89
170	99	98	95	97	96	90
171	99	98	96	98	96	90
172	99	98	96	98	96	91
173	99	98	96	98	96	91
174	99	98	96	98	97	92
175	99	98	96	98	97	92

(Table continues)

Table 7 (Continued)

Oral Reading Fluency Percentile Rank						
Score	Second Grade			Third Grade		
	Fall	Winter	Spring	Fall	Winter	Spring
176	99	98	96	98	97	92
177	99	98	97	98	97	93
178	>99	98	97	98	97	93
179	>99	98	97	98	97	93
180	>99	99	97	98	98	94
181	>99	99	97	98	98	94
182	>99	99	97	99	98	94
183	>99	99	97	99	98	95
184	>99	99	97	99	98	95
185	>99	99	98	99	98	95
186	>99	99	98	99	98	95
187	>99	99	98	99	98	96
188	>99	99	98	99	98	96
189	>99	99	98	99	98	96
190	>99	99	98	99	98	96
191	>99	99	98	99	99	96
192	>99	99	98	99	99	97
193	>99	99	98	99	99	97
194	>99	99	98	99	99	97
195	>99	99	98	99	99	97
196	>99	99	98	99	99	97
197	>99	99	99	99	99	97
198	>99	99	99	99	99	98
199	>99	99	99	99	99	98
200	>99	>99	99	>99	99	98
201	>99	>99	99	>99	99	98
202	>99	>99	99	>99	99	98
203	>99	>99	99	>99	>99	99
204	>99	>99	99	>99	>99	99
205	>99	>99	99	>99	>99	99
206	>99	>99	99	>99	>99	99
207	>99	>99	99	>99	>99	99
208	>99	>99	99	>99	>99	99
209	>99	>99	99	>99	>99	99
210	>99	>99	99	>99	>99	99

(Table continues)

Table 7 (Continued)

References

- Children's Educational Services, I. (1987). Test of Reading Fluency. Minneapolis, MN: Author.
- Good, R. H., & Jefferson, G. (1998). Contemporary perspectives on Curriculum-Based Measurement validity. In M. R. Shinn (Ed.), Advanced applications of Curriculum-Based Measurement (pp. 61-88). New York: Guilford.
- Good, R. H., Kaminski, R. A., Shinn, M., Bratten, J., Shinn, M., & Laimon, L. (in preparation). Technical Adequacy and Decision Making Utility of DIBELS (Technical Report). Eugene, OR: University of Oregon.
- Good, R. H., & Kaminski, R. A. (2002). Development and Readability of DIBELS Oral Reading Fluency Passages for First through Third Grades (Technical Report No. 10 No. 9). Eugene, OR: University of Oregon.
- Good, R. H., Kaminski, R. A., Smith, S., & Bratten, J. (2001). Technical Adequacy of Second Grade DIBELS Oral Reading Fluency Passages (Technical Report No. 8). Eugene, OR: University of Oregon.
- Kaminski, R. A., & Good, R. H. (1996). Toward a technology for assessing basic early literacy skills. School Psychology Review, 25, 215-227.
- Kaminski, R. A., & Good, R. H. (1998). Assessing early literacy skills in a problem-solving model: Dynamic Indicators of Basic Early Literacy Skills. In M. R. Shinn (Ed.), Advanced applications of Curriculum-Based Measurement (pp. 113-142). New York: Guilford.
- Laimon, D. E. (1994). The effects of a home-based and center-based intervention on at-risk preschool children's early literacy skills. Unpublished Doctoral Dissertation, University of Oregon, Eugene.

National Reading Panel. (2000). Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction: Reports of the subgroups. Bethesda, MD: National Institute of Child Health and Human Development. Available: <http://www.nationalreadingpanel.org/>.

Nunnally, J. C. (1978). Psychometric theory (2nd ed.). New York: McGraw-Hill.

Salvia, J., & Ysseldyke, J. E. (2001). Assessment (8th ed.). Boston: Houghton Mifflin.

Tindal, G., Marston, D., & Deno, S. L. (1983). The reliability of direct and repeated measurement (Research Rep. 109). Minneapolis, MN: University of Minnesota Institute for Research on Learning Disabilities.