DIBELS Deep Brief Reading Diagnostic Tools: Development & Validation

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Overview

- Introduction
- Purpose and Description of Measures
- Description of Research Study
- Results
- Discussion
- Application & Future Research
- Questions and Answers

DIBELS® in an Outcomes Driven Model

A sequence of decision-making steps designed to answer specific questions for specific purposes.

Identify long term *outcomes* and benchmarks to achieve outcomes.

System Level

1. Identify need for support.
2. Validate need for support.
3. Plan and implement support.
4. Evaluate and modify support.
5. Review outcomes.

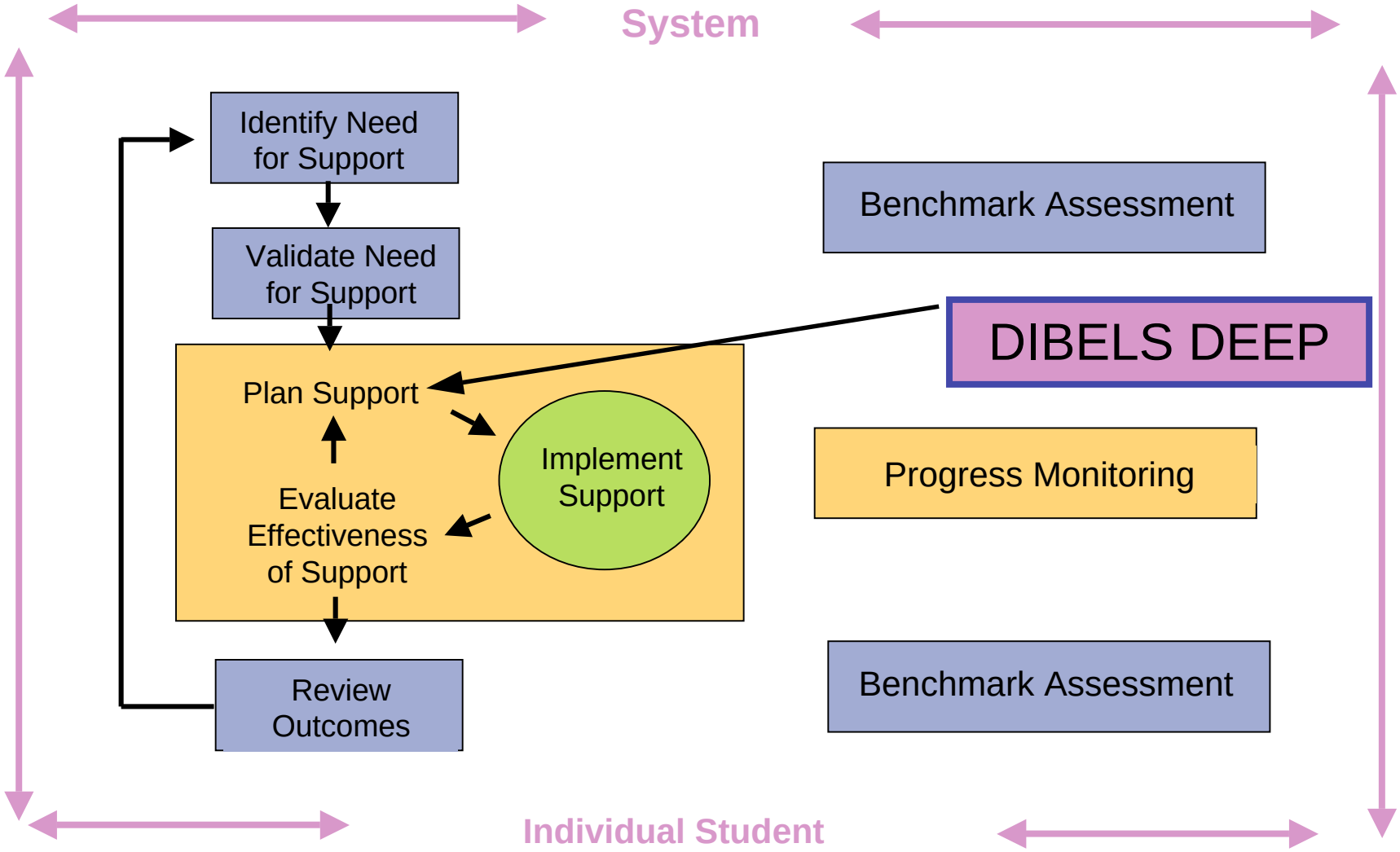
Individual Student Level

1. Identify need for support.
2. Validate need for support.
3. Plan and implement support.
4. Evaluate and modify support.
5. Review outcomes.

Outcomes-Driven Model

ODM Step	Question(s)	Data
1. Identify Need for Support	System: How many students may need support? What grade levels/literacy skills? Individual Student: Which students may need support?	Benchmark data: Histograms, Box Plots, Summary Reports, Class List Reports
2. Validate Need for Support	System: Are we confident in the accuracy of our data overall? Individual Student: Are we confident in the accuracy of our data for each student?	Benchmark data and additional information
3. Plan and Implement Support	System: What are our system goals? What curricula and program(s) will we use (Curriculum Map)? What system-level strategies will be employed to provide support? (e.g., resource allocation, scheduling) Individual Student: Which students get what support? How will students be grouped for instruction? What are the goals for each student? What specific skills will be taught? What instructional strategies will be used?	Benchmark data and additional information: Individual student booklets, additional diagnostic information, knowledge of/information about student
4. Evaluate and Modify Support	System: Are the majority of students making adequate progress? Are we making progress toward system goals? Individual Student: Is the support effective for individual students?	Progress Monitoring data: Individual student progress graphs
5. Review Outcomes	System: How effective is our overall system of support? Are we making progress from one year to the next? Individual Student: Which students have met goals?	Benchmark data: Histograms, Box Plots, Summary Reports, Cross-Year Box Plots, Summary of Effectiveness Reports, Classroom progress graphs, Class List Reports

Outcomes-Driven Model



DIBELS® Deep

- Purpose
  - to provide a set of time and cost efficient brief diagnostic assessments designed to provide specific information for targeting instruction corresponding to the 5 essential components of effective reading programs.

DIBELS® Deep: Specifications

- Sequence skills to correspond to recognized sequences of instruction (c.f., Carnine, et. al., 2006; Jennings, Caldwell, & Lerner, 2006; National Research Council, 1998; Nippold, 2007; Simmons & Kame'enui, 1999; Wagner, Muse, & Tannenbaum, 2007).
- Help identify specific learner needs and assist in differentiating instruction
- User-friendly and cost-effective
- Linked to DIBELS

Development of the Measures and Pilot Study/Field Testing

- Who: 35 students in grades 1-4
- What: Students assessed in materials at grade level as well as above and/or below depending upon skill level
- When: Fall, 2006
- Findings: Scope and sequence accurate, reordering of items within measures, changes in wording

DIBELS® Deep: Measures

- *DIBELS® Deep Phonemic Awareness*
  - Two probes
    - Deep PA Probe 1 samples the following skills: blending word parts in compound words, segmenting compound words, blending syllables, segmenting syllables, blending onset-rime, matching rimes, segmenting onset-rime, saying rhyming words, recognizing rhyming words.
    - Deep PA Probe 2 samples the following skills: blending 2 and 3 phoneme words, recognizing and producing initial sounds, recognizing and producing final sounds, segmenting 2-3 phoneme words and segmenting a 3 phoneme words with blends.

DIBELS® Deep: Measures

- *DIBELS® Deep Alphabetic Principle*
  - Quick Screen & Five Additional Probes Covering Range of AP Skills in Grades K-3.
    - Probe 1 kindergarten skills (e.g., letter-sound correspondence, blending VC and CVC words).
    - Probes 2 and 3 first grade skills (e.g., blending CVCC, CCVC, CCVCC words, blending words with consonant digraphs, blending one-syllable words with vowel diagraphs and diphthongs, etc.).
    - Probe 4 second grade skills (e.g., blending two-syllable words with r-controlled vowels, blending words with inflectional endings, blending multisyllabic words, etc.).
    - Probe 5 covers third grade skills (e.g., blending two-syllable words with diphthongs, blending words with irregular vowel teams, blending words with consonant trigraphs).

Research Draft:
Do NOT Disseminate

Dynamic Measurement Group
Supporting School Success One Step at a Time

DIBELS® DEEP

Phonemic Awareness

AP Probe 1 Directions

DIBELS® Deep Alphabetic Principle Probe 1

Directions for Administration and Scoring

Materials: DIBELS® Deep Alphabetic Principle Easel/Workbook, Score Sheet, clipboard, and pencil.

1. Introduce the probe by saying, ***We are going to do some activities with letters, sounds, and words.***
2. Say the directions for each item and present the necessary stimulus pages in the order presented in the manual/directions. The directions may be shortened once the child clearly understands the task. The shortened directions are: ***Here is another list of words (make-believe words).***
3. Record the child's responses on the scoring sheet.
4. Discontinue testing a section if the child answers three consecutive items incorrectly.
5. Discontinue testing AP Probe 1 if the child does not respond correctly to at least three items in three consecutive sections unless directed to do otherwise in a specific section. If this discontinue rule is met within the first three sections of AP Probe 1, then consider testing with Phonemic Awareness Deep.

Note: This is an untimed probe designed to provide information about specific alphabetic principle skills on which a child may need instructional support. If necessary, examiners may remind the child that this is not a timed test and that they should do their *best* reading. Prompts may be given to the child and examiners may use their inventiveness to teach the desired response in the ***first two items for each section***. If a child responds correctly to an item with a prompt, a √ should be made in the response column on the score sheet and note made regarding the type of prompt.

Sample Tasks: Deep AP Probe 1

Section A: Letter-Sound Correspondence

Look at these letters (point) ***and tell me the sound of each letter. If you come to letter you don't know, make your best guess. Please do your best. Put your finger on the first letter. Begin.*** (Pause for up to three seconds.) If no response, score the item as incorrect and try using the prompting procedures and/or teaching sequence below*.

Prompting a Response: Try using either of the following prompts.

- Point to the letter "a" and say, ***Do you know what sound this letter makes?*** If the child says "yes" then ask the child to tell you the sound. If the child says "no" then say, ***The sound of this letter is /a/. What sound?*** (The child should respond with /a/.) ***Ok, try this one.*** (Point to the letter "m" on the child stimulus page.)

OR

- Point to the page of letters and say, ***Do you know the sounds for any of the letters on this page?*** If the child says "yes" then ask the child to tell you the sounds and point to the letters they know. Record any correct responses.

Teaching the Task:

- Point to the next letter in the sequence and say, ***The sound of this letter is /m/, say it with me, what sound*** (pause) ***/m/. Your turn, what sound? Your turn to try one on your own. What sound does this letter make?*** (Point to the "t".)
- If correct, say, ***Good job, let's try some more. Begin here.*** (Point to "s".) ***What sound?***
- If incorrect, say, ***Let's try some more. Begin here.*** (Point to "s".) ***What sound?***

**NOTE: Examiners/teachers should use the language of the instructional curriculum in prompting and teaching. Prompts may be given to the child and examiners may use their inventiveness to teach the desired response in the first <u>two</u> items only.*

Note: If a child does not appear to understand this task or earns a score of less than five letter sounds correct in the first row after prompting, then discontinue testing and consider testing with DIBELS® Deep Phonemic Awareness Probe 2. Otherwise, continue with Section B.

Sample Tasks: Deep AP Probe 5

Section A: Reading Compound Words

A1. Real Words

Here are some words. Read each word the best you can. Begin here (point) ***and read down the list*** (demonstrate by pointing)**.** ***If you come to a word you do not know, make your best guess. Put your finger on the first word. Begin.*** (Pause for up to three seconds.) If no response, score the item as incorrect and try using the prompting procedures and/or teaching sequence below*.

Prompting a Response:

- Point to the word and say, ***Do you know what this word is?*** If "yes" then ask the child to tell you the word. If "no" then say, ***Try sounding it out.*** If no response or incorrect, say, ***What is the first sound in this word*** (point)***?*** If no response or incorrect, say, ***Do you know any of the sounds in the word?*** If no response or incorrect, try teaching the task.

Teaching the Task:

- Point to the word "waterfall" and say, ***This word is "waterfall." Listen to me as I read the word*** (pause) ***/w/ /a/ /t/ /er/ /f/ /a/ /l/, waterfall. Now your turn to read this word*** (point to "waterfall") ***by yourself, what word?*** (Pause.) Proceed with the remaining test items by saying, ***Let's try some more words.*** (Point to "brickyard.")

**NOTE: Examiners/teachers should use the language of the instructional curriculum in prompting and teaching. Prompts may be given to the child and examiners may use their inventiveness to teach the desired response in the first two items only.*

DIBELS® Deep Phase 1 Research:
Assessing The Utility of DIBELS® Deep

- Research Questions
  - What is the distribution and frequency of DIBELS Deep measures given at each grade level?
  - What is the relationship between the various DIBELS Deep measures?
  - What is the relationship between performance on DIBELS Deep and the DIBELS benchmark measures?
  - Are the items and sections sequenced appropriately?
  - To what extent do teachers find the measures useful?
  - To what extent are examiners satisfied with the measures?

DIBELS® Deep Phase 1 Research

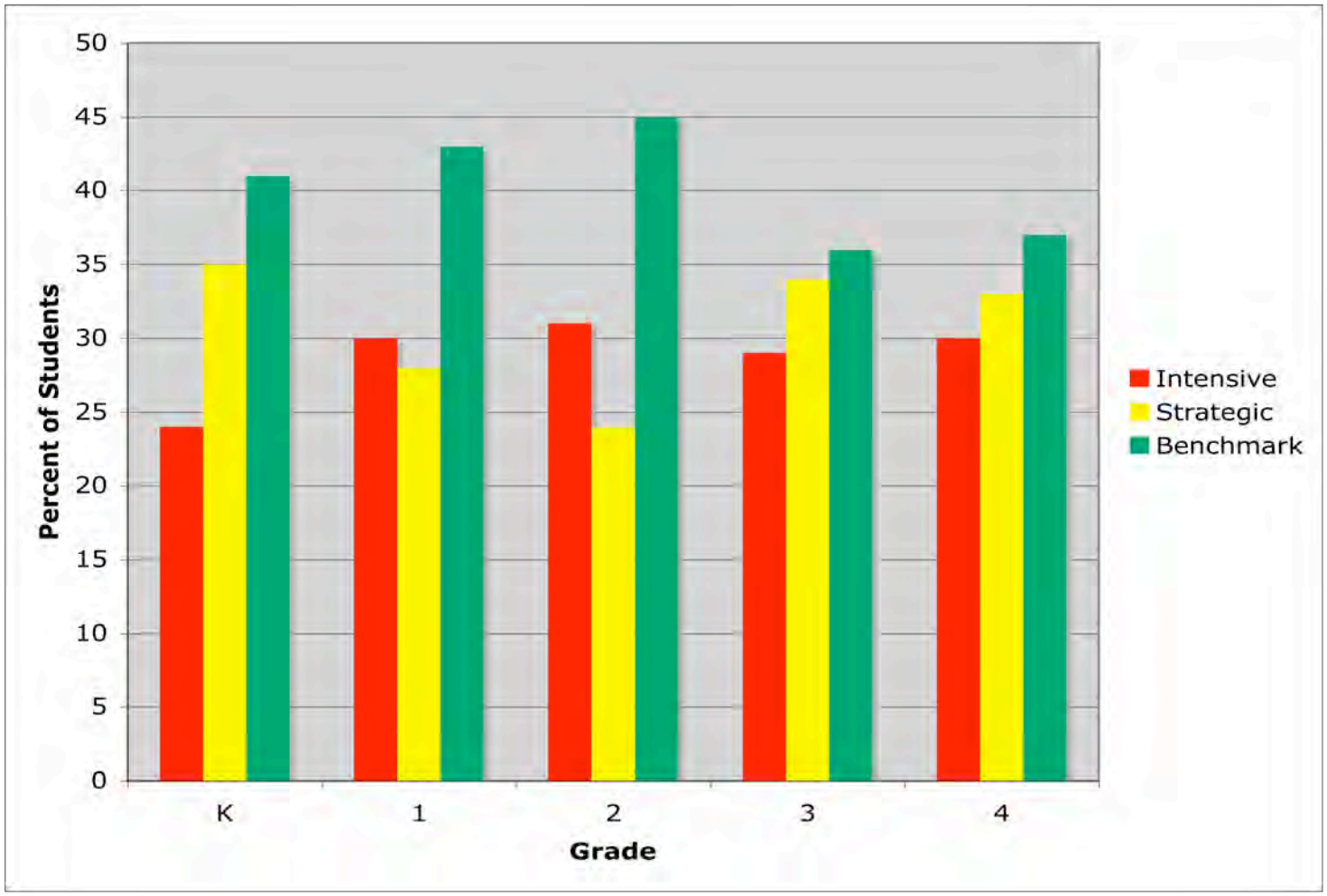
- Participants
  - Sites
    - Participating sites in 4 states. One to 5 schools per state, with 11 total schools.
  - Students
    - Each participating school/site selected a random stratified sample of 15-30 students in each grade K-4.
  - Teachers
    - All teachers of participating students were invited to complete questionnaires.
  - Examiners
    - Those in each site were invited to complete questionnaires.

School Demographic Data

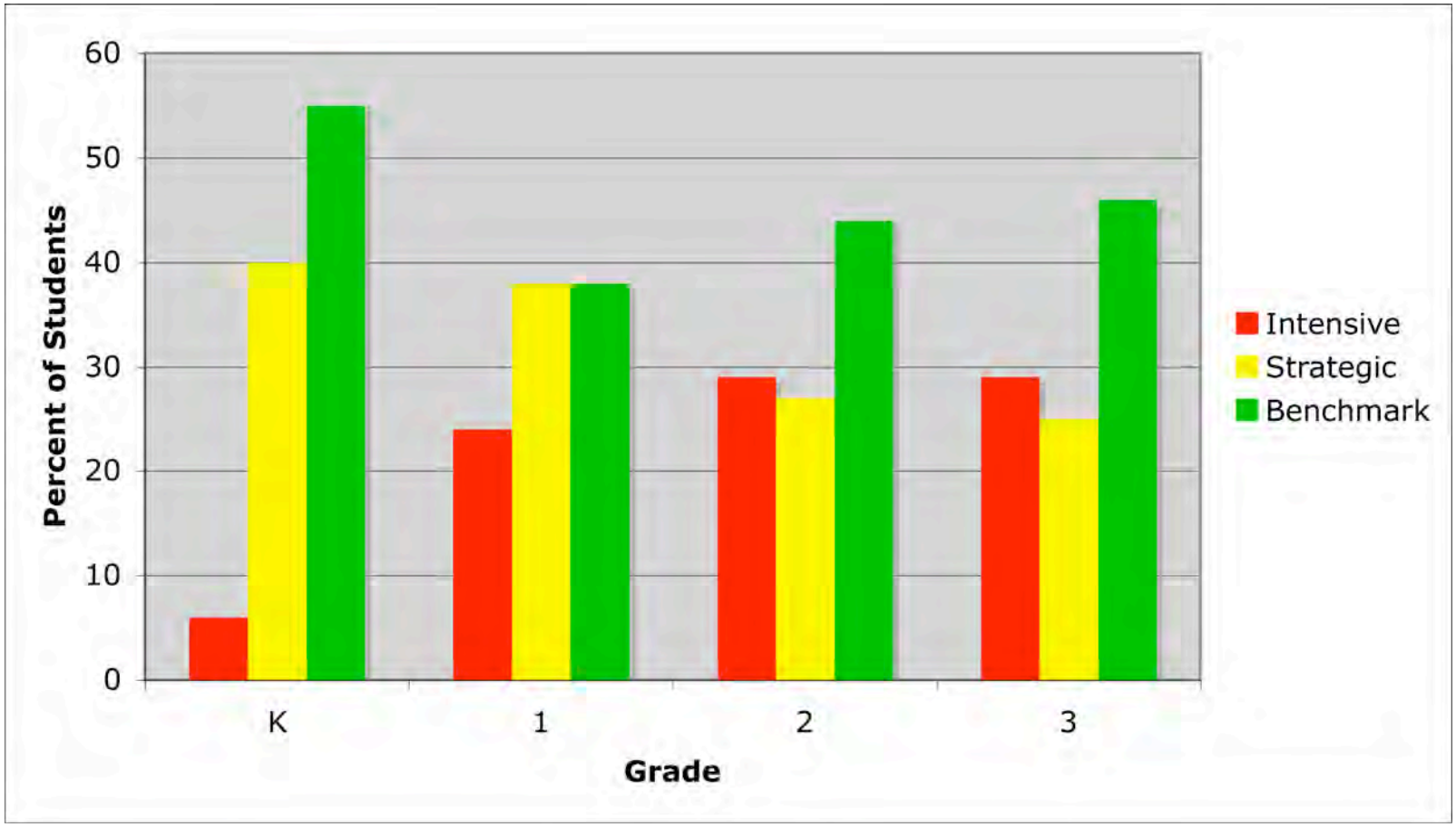
	School Number										
	1	2	3	4	5	6	7	8	9	10	11
Locale	City: Midsize	Suburb: Large	Town: Fringe	Rural: Distant	City: Midsize	(no data)	Rural: Fringe	Suburb: Large	Town: Fringe	City: Midsize	Town: Distant
Grades Taught	KG - 6	PK - 3	KG - 4	KG - 4	KG - 5	KG - 4	KG - 4	4 - 5	KG - 4	1 - 5	PK - 4
Total Students	376	442	384	194	302	355	438	182	334	586	674
Student/Teacher Ratio	19:1	16:1	14:1	11:1	18:1	13:1	13:1	12:1	15:1	15:1	15:1
Title 1 Eligible	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes[1]	No	Yes	Yes
Free/Reduced Lunch	53%	43%	26%	37%	52%	20%	27%	48%	11%	54%	29%
Percent Female	53%	47%	42%	41%	46%	50%	48%	46%	51%	52%	49%
Student Ethnicity											
Am. Indian	2%	<1%	<1%	0	2%	<1%	2%	0	0	<1%	<1%
Asian	2%	<1%	<1%	2%	2%	2%	2%	2%	<1%	3%	0
Black	<1%	<1%	4%	<1%	27%	2%	4%	2%	<1%	29%	0
Hispanic	10%	6%	4%	2%	11%	8%	8%	6%	1%	11%	<1%
White	84%	92%	83%	96%	59%	87%	84%	90%	95%	56%	99%

[1]School-Wide Title I Program.

Students by Instructional Recommendations: Fall



Students by Instructional Recommendation: Winter



Students' Scores on DIBELS Measures

	DIBELS Measure									
	LNF		ISF		PSF		NWF		ORF	
Grade	Fall	Winter	Fall	Winter	Fall	Winter	Fall	Winter	Fall	Winter
K G	13.3 (11. 9)	31.9 (15.2)	8.7 (7.1)	28.0 (14.6)		30.3 (14.8)		15.3 (11.2)		
	(n = 49)	(n = 63)	(n = 49)	(n = 63)	-	(n = 63)	-	(n = 63)	-	-
First	31.9 (16.4)				39.6 (12.0)	53.9 (11.9)	25.5 (24.7)	55.6 (31.7)		30.5 (33.8)
	(n = 54)	-	-	-	(n = 54)	(n = 66)	(n = 54)	(n = 66)	-	(n = 66)
Second							55.7 (20.1)		51.3 (39.1)	73.5 (44.5)
	-	-	-	-	-	-	(n = 33)	-	(n = 51)	(n = 62)
Third									77.0 (33.8)	91.3 (37.9)
	-	-	-	-	-	-	-	-	(n = 47)	(n = 59)
Fourth									87.8 (32.5)	128.5 (38.7)
	-	-	-	-	-	-	-	-	(n = 43)	(n = 6)

Note. KG = Kindergarten. LNF = Letter Naming Fluency, ISF = Initial Sounds Fluency, PSF = Phoneme Segmentation Fluency, NWF = Nonsense Word Fluency, and ORF = Oral Reading Fluency.

Measures

- DIBELS Deep Measures
  - Phonemic Awareness
  - Alphabetic Principle
  - Schedule varied by grade level and time of year
- Consumer Feedback Questionnaires
  - Teachers
  - Examiners
- DIBELS Benchmark Data
  - As per each sites regularly scheduled benchmark data collection

Data Collection

Schedule of DIBELS® Deep Measures & Questionnaires by Grade Level (Fall and Winter Data Collection Sites)

	Kindergarten		First Grade		Second Grade		Third Grade		Fourth Grade*
Measure/Month	Nov/Dec	Jan/Feb	Nov/Dec	Jan/Feb	Nov/Dec	Jan/Feb	Nov/Dec	Jan/Feb	Nov/Dec
DEEP PA1	*X*	✔	✔	✔	✔	✔	✔	✔	✔
DEEP PA2	*X*	*X*	*X*	✔	✔	✔	✔	✔	✔
DEEP AP SCREEN	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*
DEEP AP1	*X*	*X*	*X*	✔	✔	✔	✔	✔	✔
DEEP AP2		✔	*X*	*X*	✔	✔	✔	✔	✔
DEEP AP3			✔	*X*	*X*	✔	✔	✔	✔
DEEP AP4				*X*	*X*	*X*	*X*	✔	✔
DEEP AP5						*X*	*X*	*X*	*X*
Teacher & Examiner Questionnaires		*X*		*X*		*X*		*X*	*X*

Key: ***X*** = Deep measure **scheduled** to be given
✔= Deep measure **may be** given dependent on student skill level
G r e y shading = Deep measure not given

Schedule of DIBELS® Deep Measures & Questionnaires by Grade Level (Winter and Spring Data Collection Sites)

	Kindergarten		First Grade		Second Grade		Third Grade	
Measure/Month	Jan/Feb	Spring	Jan/Feb	Spring	Jan/Feb	Spring	Jan/Feb	Spring
DEEP PA1	✔	✔	✔	✔	✔	✔	✔	✔
DEEP PA2	*X*	✔	✔	✔	✔	✔	✔	✔
DEEP AP SCREEN	*X*	*X*	*X*	*X*	*X*	*X*	*X*	*X*
DEEP AP1	*X*	*X*	✔	✔	✔	✔	✔	✔
DEEP AP2	✔	✔	*X*	*X*	✔	✔	✔	✔
DEEP AP3			*X*	*X*	✔	✔	✔	✔
DEEP AP4			*X*	*X*	*X*	*X*	✔	✔
DEEP AP5					*X*	*X*	*X*	*X*
Teacher & Examiner Questionnaires		*X*		*X*		*X*		*X*

Overview of Results

- Descriptive Statistics
- Correlations across Deep Measures
- Correlations with DIBELS Measures
- Examination of item- and section-level data
- Consumer Data

Question 1

- What is the distribution and frequency of DIBELS Deep measures given at each grade level?
  - Descriptive Statistics

Descriptive Statistics: Number of Students Given Deep Measures

	DIBELS Deep Measure						
Grade	**PA1**	**PA2**	**AP1**	**AP2**	**AP3**	**AP4**	**AP5**
Kindergarten							
Fall	47	44	39	0	0	0	0
Winter	6	58	55	4	0	0	0
First							
Fall	1	45	46	49	9	0	0
Winter	0	1	13	57	56	48	3
Second							
Fall	0	1	7	16	47	42	5
Winter	0	1	9	16	16	57	53
Third							
Fall	0	0	4	9	12	38	41
Winter	0	0	0	4	6	9	57
Fourth							
Fall	0	0	0	6	6	8	42
Winter	0	0	0	0	0	0	6
All Grades							
Fall	48	90	96	80	74	88	88
Winter	6	60	77	81	78	114	119

Note. PA1 = Phonemic Awareness Probe 1, PA2 = Phonemic Awareness Probe 2, AP1 = Alphabetic Principle Probe 1, AP2 = Alphabetic Principle Probe 2, AP3 = Alphabetic Principle Probe 3, AP4 = Alphabetic Principle Probe 4, and AP5 = Alphabetic Principle Probe 5.

Question 2

- What is the relationship between the various DIBELS Deep Measures?
  - Descriptive statistics
  - Correlations across Deep Measures

Descriptive Statistics: DIBELS Deep Means & Standard Deviations (Fall)

	DIBELS Deep Measure						
Grade	**PA1**	**PA2**	**AP1**	**AP2**	**AP3**	**AP4**	**AP5**
Kindergarten	30.40 (13.00)	38.07 (14.22)	20.38 (19.49)	-	-	-	-
	(n = 47)	(n = 44)	(n = 39)				
First	43 (na)	51.29 (3.80)	91.61 (25.07)	82.34 (66.52)	70.78 (48.43)	-	-
	(n = 1)	(n = 45)	(n = 46)	(n = 49)	(n = 9)		
Second	-	-	72.86 (25.12)	79.31 (52.87)	78.81 (48.06)	83.45 (44.69)	64.60 (46.52)
			(n = 7)	(n = 16)	(n = 47)	(n = 42)	(n = 5)
Third	-	-	60.75 (45.63)	66.56 (52.05)	61.83 (36.57)	101.11 (39.05)	84.44 (35.50)
			(n = 4)	(n = 9)	(n =12)	(n = 38)	(n = 41)
Fourth	-	-	-	50.17 (43.18)	32.67 (24.82)	42.38 (46.28)	102.12 (28.50)
				(n = 6)	(n = 6)	(n = 8)	(n = 42)

Note. Standard deviations are noted in parentheses. PA1 = Phonemic Awareness Probe 1 (maximum possible score = 60), PA2 = Phonemic Awareness Probe 2 (maximum possible score = 55), AP1 = Alphabetic Principle Probe 1 (maximum possible score = 119), AP2 = Alphabetic Principle Probe 2 (182), AP3 = Alphabetic Principle Probe 3 (maximum possible score = 144), AP4 = Alphabetic Principle Probe 4 (maximum possible score = 132), and AP5 = Alphabetic Principle Probe 5 (maximum possible score = 131).

Yellow Highlighting = Target grade level & time frame

Grey Highlighting = very small sample (n < 10)

Descriptive Statistics: DIBELS Deep Means & Standard Deviations (Winter)

Grade	DIBELS Deep Measure						
	PA1	**PA2**	**AP1**	**AP2**	**AP3**	**AP4**	**AP5**
Kindergarten	18.67 (12.21) (n = 6)	43.55 (10.03) (n = 58)	39.49 (27.25) (n = 55)	10.75 (13.02) (n = 4)	-	-	-
First	-	51 (na) (n = 1)	77.15 (19.07) (n = 13)	105.93 (58.86) (n = 57)	49.46 (44.55) (n = 56)	52.02 (47.59) (n = 48)	84.00 (37.51) (n = 3)
Second	-	-	86.33 (9.72) (n = 9)	56.94 (38.32) (n = 16)	44.16 (34.46) (n = 19)	83.77 (45.19) (n = 57)	66.53 (37.96) (n = 53)
Third	-	-	-	113.75 (31.03) (n = 4)	41.33 (30.38) (n = 6)	81.89 (47.42) (n = 9)	98.08 (28.60) (n = 57)
Fourth	-	-	-	-	-	-	115.67 (11.67) (n = 6)

Note. Standard deviations are noted in parentheses. PA1 = Phonemic Awareness Probe 1 (maximum possible score = 60), PA2 = Phonemic Awareness Probe 2 (maximum possible score = 55), AP1 = Alphabetic Principle Probe 1 (maximum possible score = 119), AP2 = Alphabetic Principle Probe 2 (182), AP3 = Alphabetic Principle Probe 3 (maximum possible score = 144), AP4 = Alphabetic Principle Probe 4 (maximum possible score = 132), and AP5 = Alphabetic Principle Probe 5 (maximum possible score = 131).

Yellow Highlighting = Target grade level & time frame

Grey Highlighting = very small sample (n < 10)

Correlations Between DIBELS Deep Measures (Fall)

Variable	PA1	PA2	AP1	AP2	AP3	AP4	AP5
PA1	____	.72 (n = 44 KG[a])	.41 (n = 38 KG[a])	-	-	-	-
PA2		____	.61 (n = 38 KG[a])	.63 (n = 44 1st)	-	-	-
			.46 (n = 44 1st)				
AP1			____	.89 (n = 43 1st)	-	-	-
AP2				____	-	-	-
AP3					____	.84 (n = 41 2nd)	-
AP4						____	.67 (n = 36 3rd)
AP5							____

Note. All correlations are statistically significant, p >.05. Data are not reported in cases where n < 20. PA1 = Phonemic Awareness Probe 1, PA2 = Phonemic Awareness Probe 2, AP1 = Alphabetic Principle Probe 1, AP2 = Alphabetic Principle Probe 2, AP3 = Alphabetic Principle Probe 3, AP4 = Alphabetic Principle Probe 4, and AP5 = Alphabetic Principle Probe 5.
[a]Kg = Kindergarten

Correlations Between DIBELS Deep Measures (Winter)

Variable	PA1	PA2	AP1	AP2	AP3	AP4	AP5
PA1	____	-	-	-	-	-	-
PA2		____	.58 (n = 54 KG[a])	-	-	-	-
AP1			____	-	-	-	-
AP2				____	.79 (n = 52 1st)	.84 (n = 46 1st)	-
AP3					____	.91 (n = 46 1st)	-
AP4						____	.85 (n = 53 2nd)
AP5							____

Note. All correlations are statistically significant, $p < .05$. Data are not reported in cases where $n < 20$. PA1 = Phonemic Awareness Probe 1, PA2 = Phonemic Awareness Probe 2, AP1 = Alphabetic Principle Probe 1, AP2 = Alphabetic Principle Probe 2, AP3 = Alphabetic Principle Probe 3, AP4 = Alphabetic Principle Probe 4, and AP5 = Alphabetic Principle Probe 5.

[a]Kg = Kindergart e n

Question 3

- What is the relationship between performance on DIBELS Deep and the DIBELS benchmark measures?
  - Correlations with DIBELS measures

Correlations with DIBELS Measures

Measure	LNF		ISF		PSF		NWF		ORF	
	Fall	Winter	Fall	Winter	Fall	Winter	Fall	Winter	Fall	Winter
PA1										
Kindergarten	.20 (47)	-	.23 (47)	-	-	-	-	-	-	-
PA2										
Kindergarten	.47* (44)	.36* (57)	.40* (44)	.44* (57)	-	.61* (57)	-	.44* (57)	-	-
First Grade	.36* (45)	-	-	-	.44* (45)	-	.29 (45)	.	-	-
AP1										
Kindergarten	.61* (39)	.75* (54)	.43* (39)	.49* (54)	-	.24 (54)	-	.76* (54)	-	-
First Grade	.42* (46)	-	-	-	.18 (46)	-	.50* (46)	-	-	-
AP2										
First Grade	.49* (49)	-	-	-	.32* (49)	.27* (57)	.55* (49)	.66* (57)	-	.62* (57)
AP3										
First Grade	-	-	-	-	-	.08 (56)	-	.76* (56)	-	.77* (56)
Second Grade	-	-	-	-	-	-	.33 (30)	-	.61* (47)	-
AP4										
Second Grade	-	-	-	-	-	-	.47* (27)	-	.70* (42)	.67* (57)
Third Grade	-	-	-	-	-	-	.	-	.48* (38)	-
AP5										
Third Grade	-	-	-	-	-	-	-	-	.66* (41)	.64* (57)
Fourth Grade	-	-	-	-	-	-	-	-	.56* (42)	-

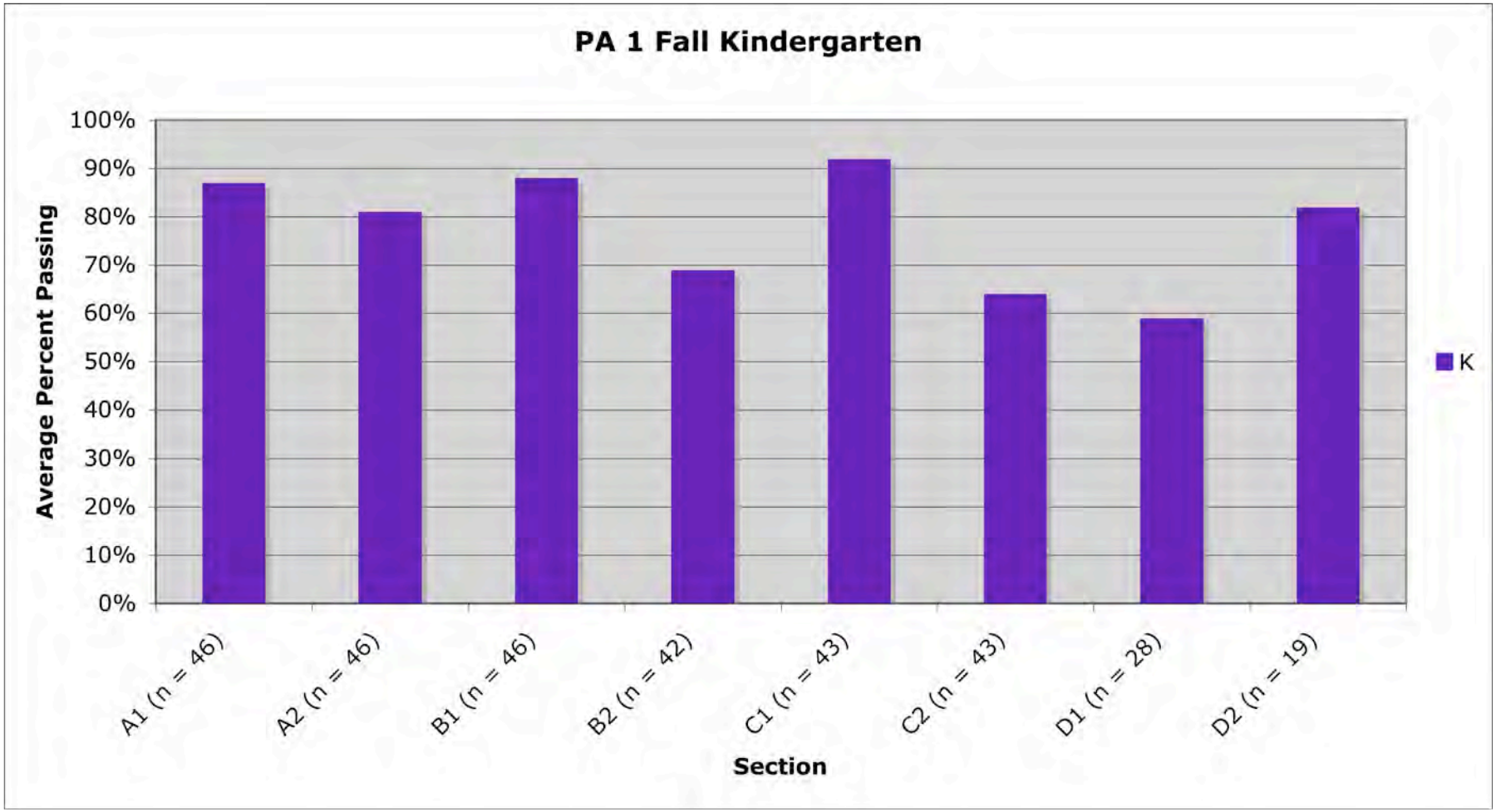
Note. Correlations reflect measures given at the same time of year. Numbers in parentheses indicate sample size. Data are not reported in cases where n < 20, or where one of the measures was not appropriate for student grade or time of year. PA1 = Phonemic Awareness Probe 1, PA2 = Phonemic Awareness Probe 2, AP1 = Alphabetic Principle Probe 1, AP2 = Alphabetic Principle Probe 2, AP3 = Alphabetic Principle Probe 3, AP4 = Alphabetic Principle Probe 4, and AP5 = Alphabetic Principle Probe 5. LNF = Letter Naming Fluency, ISF = Initial Sounds Fluency, PSF = Phoneme Segmentation Fluency, NWF = Nonsense Word Fluency, and ORF = Oral Reading Fluency.

* $p < .05$

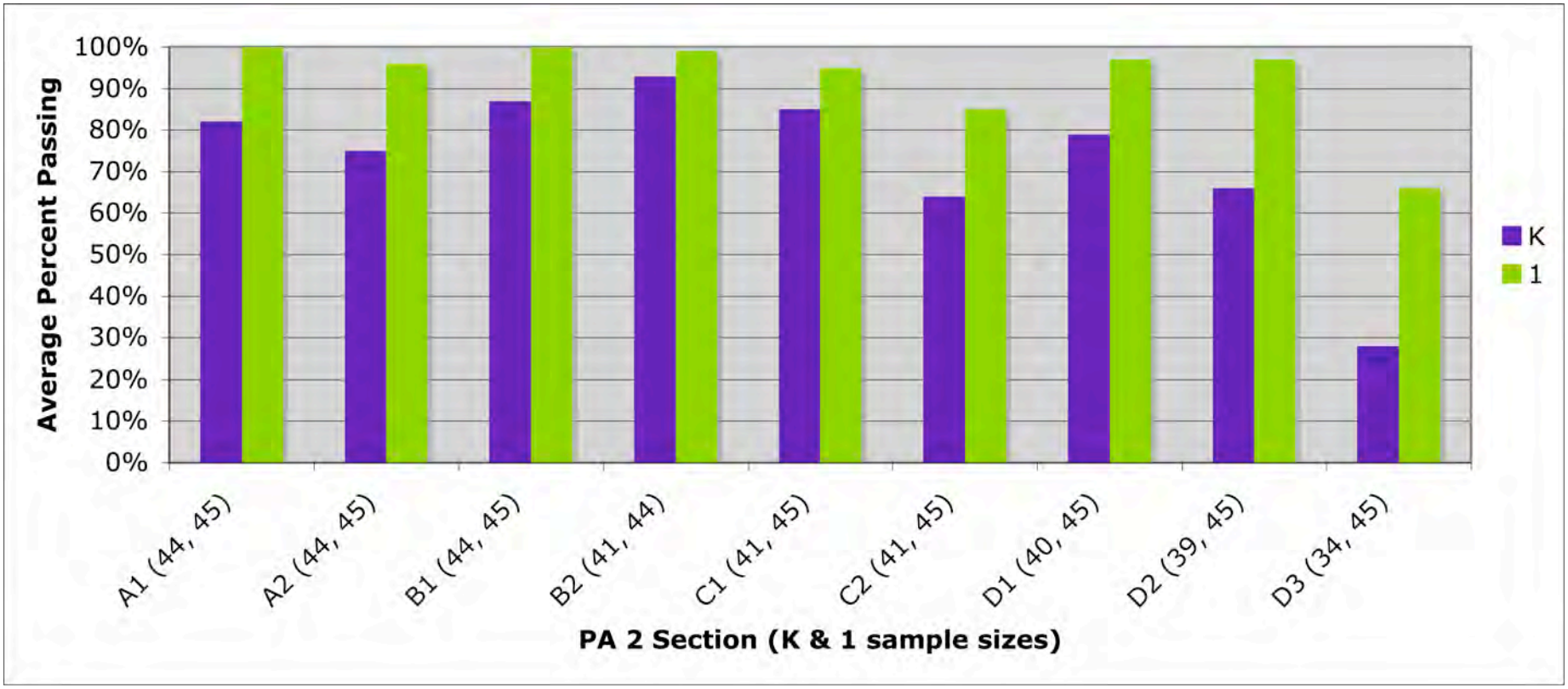
Question 4

- Are the items and sections sequenced appropriately?
  - Examination of item- and section-level data

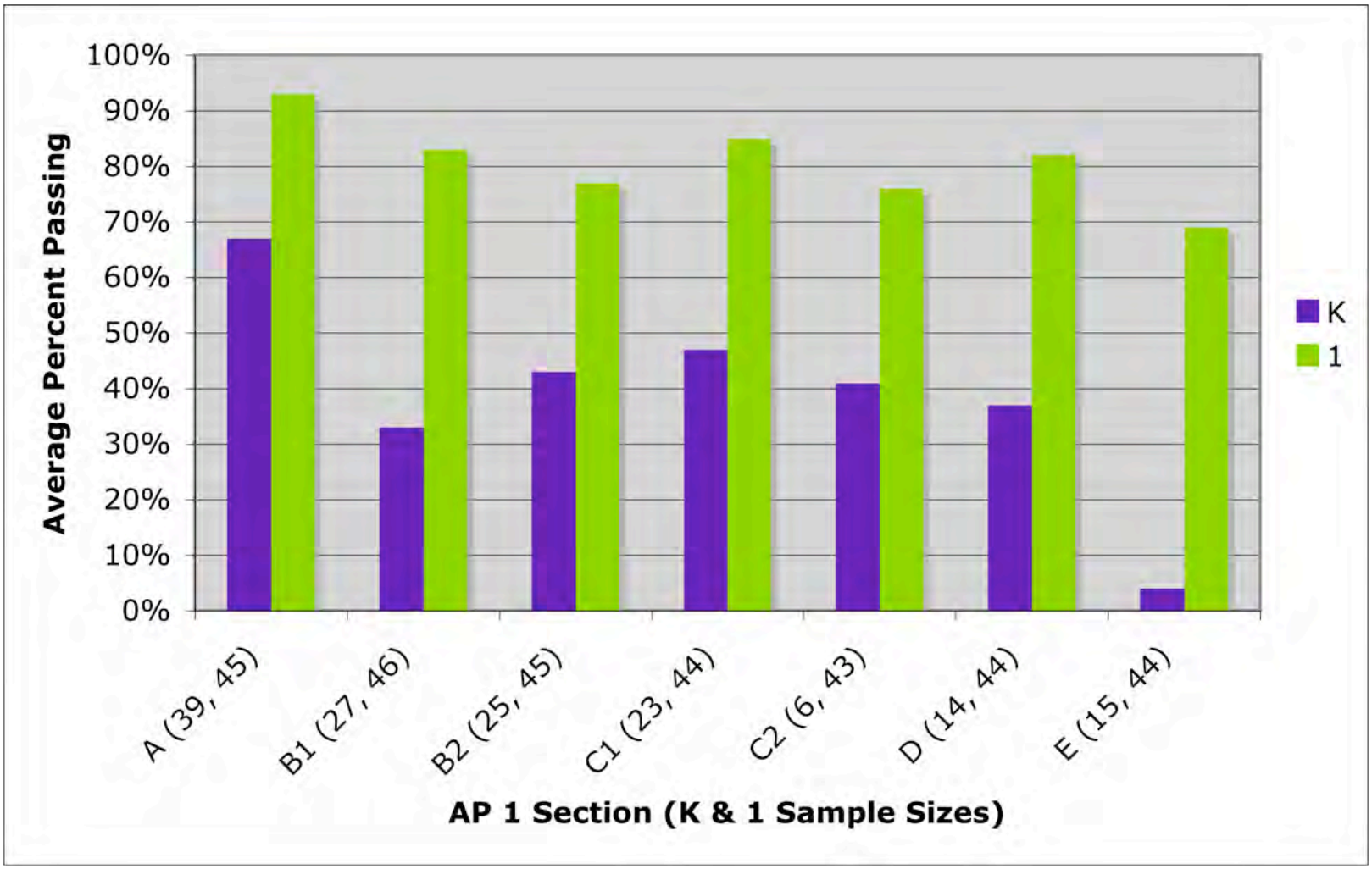
Section-Level Data: Fall PA 1



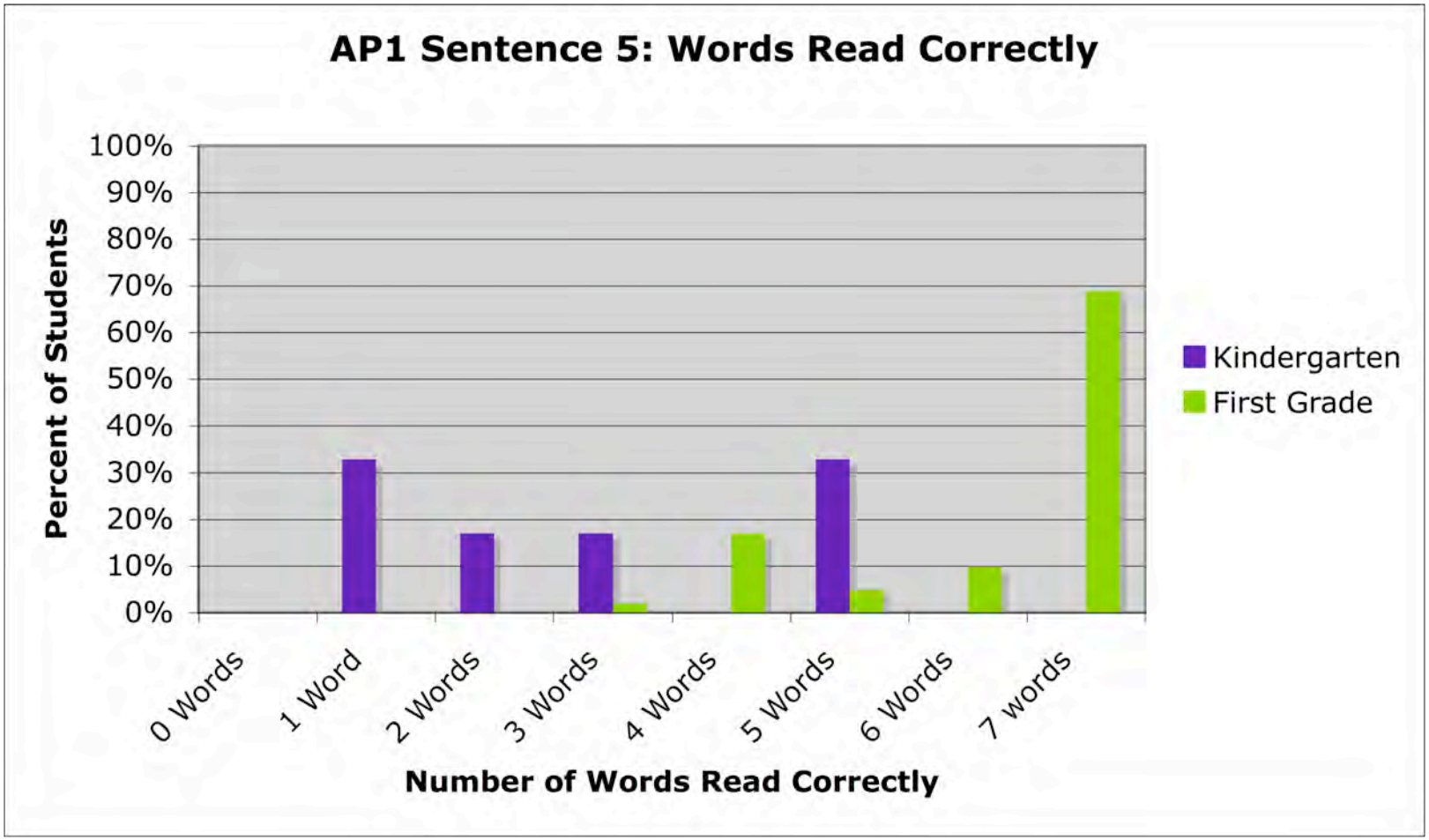
Section-Level Data: Kindergarten and First Grade Fall PA 2



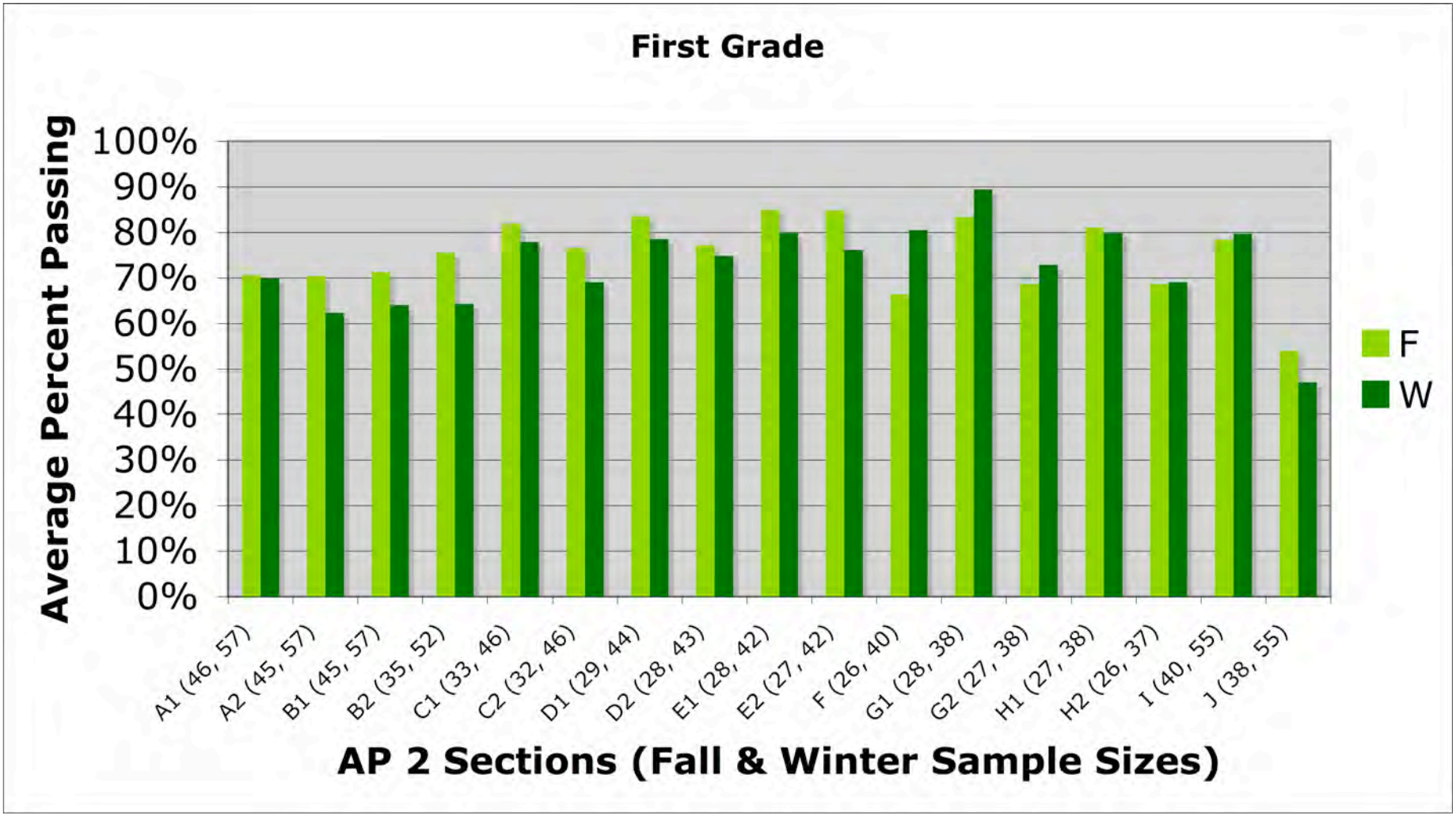
Section-Level Data: Kindergarten and First Grade Fall AP 1



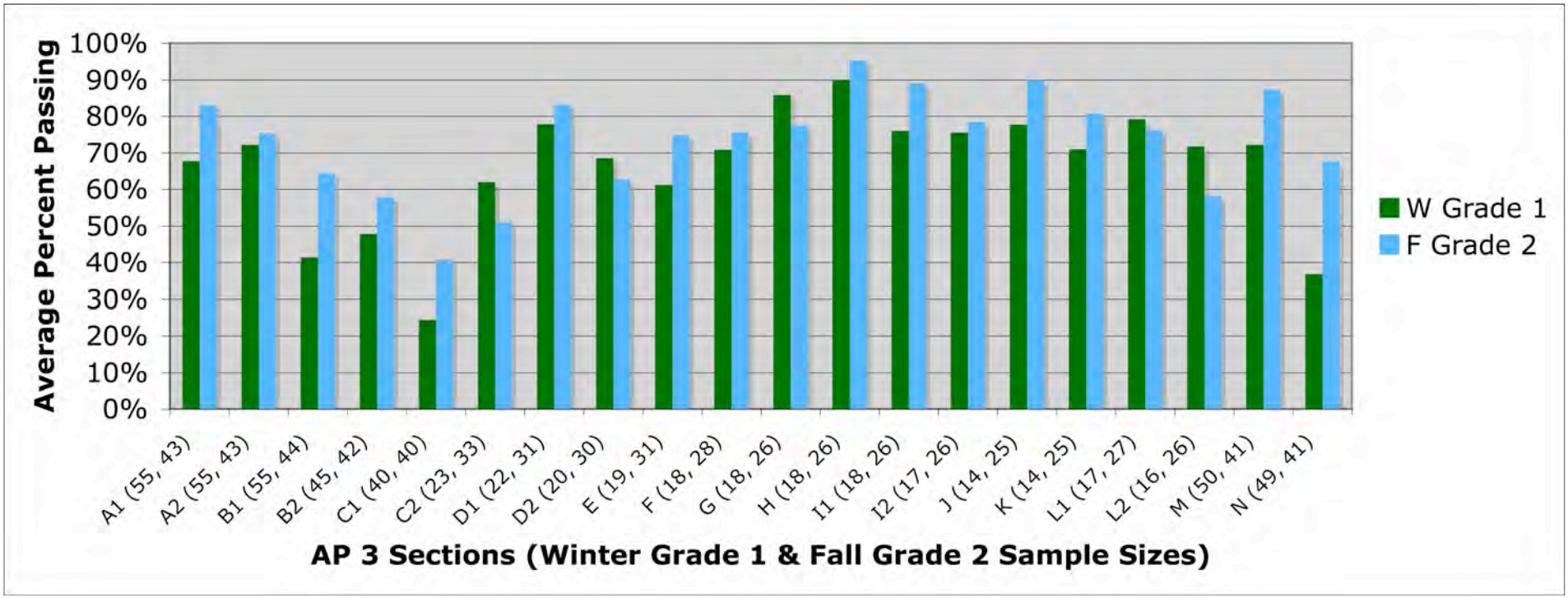
AP1 Sentences--Alternative Scoring Example: Fall Kindergarten & Grade 1



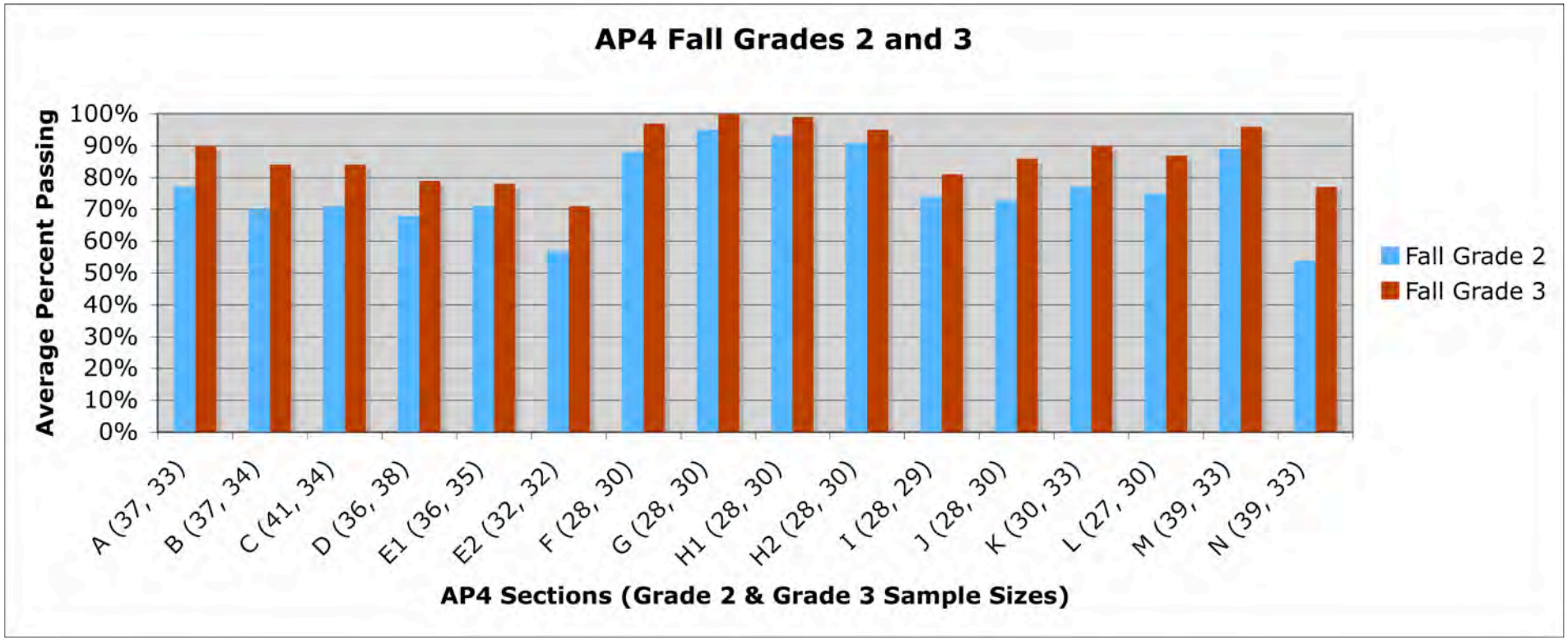
Section-Level Data: First Grade Fall and Winter AP 2



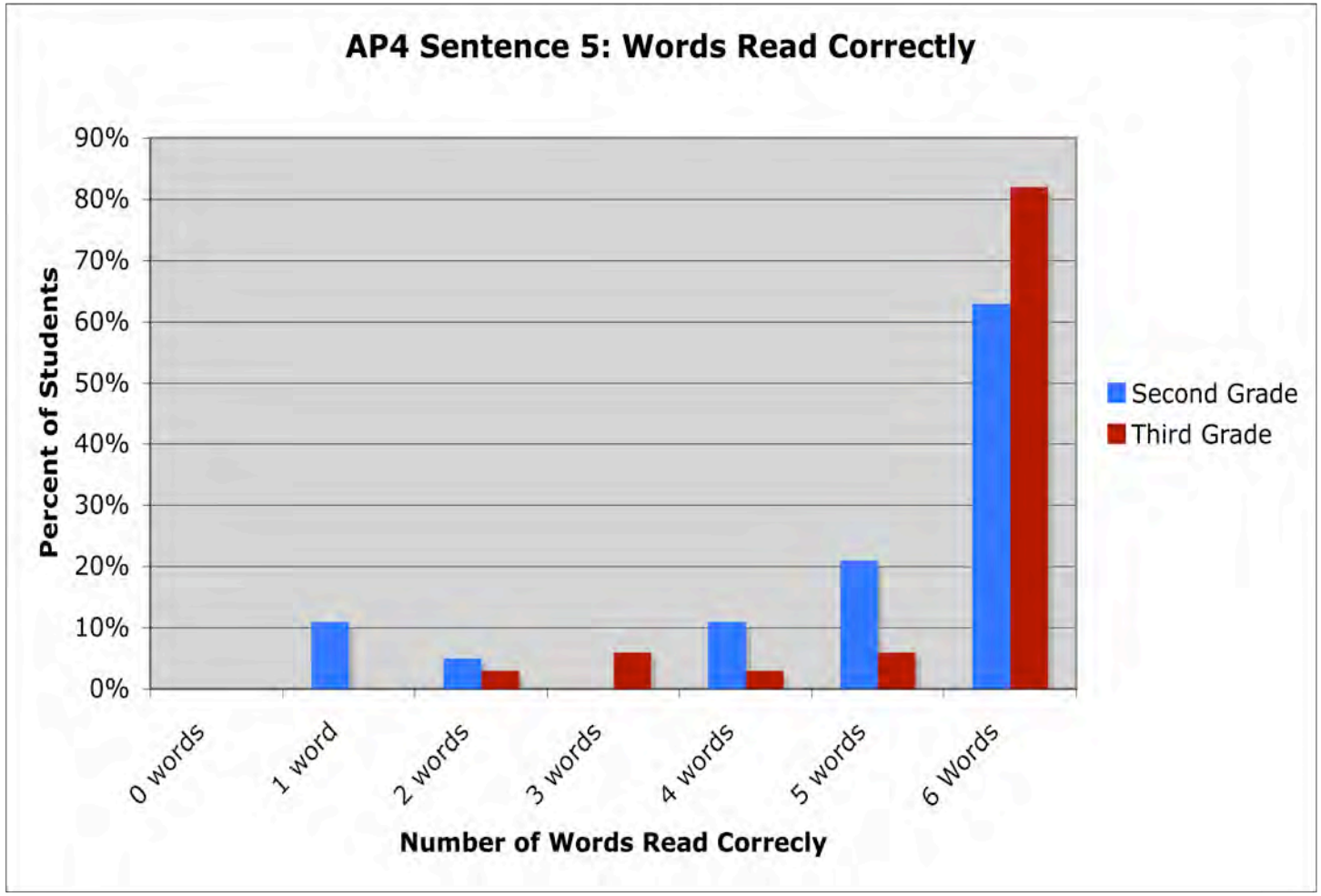
Section-Level Data: First Grade Winter and Fall Grade 2 AP 3



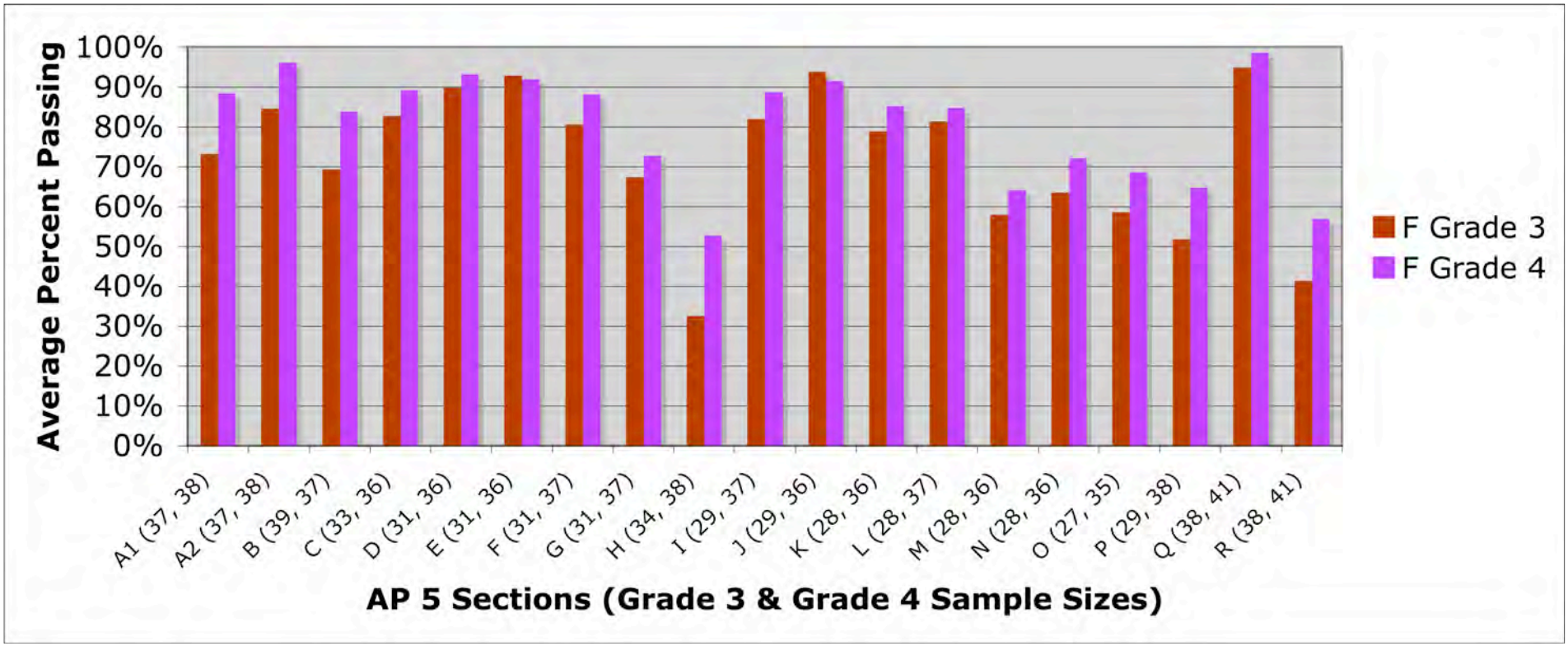
Section-Level Data: Second and Third Grade Fall AP 4



AP4 Sentences--Alternative Scoring Example: Fall Second & Third Grade



Section-Level Data: Third and Fourth Grade Fall AP 5



Question 5

- To what extent do teachers find the measures useful?
  - Consumer data

Teacher Usability Questionnaire

Item	N	Mean Rating (SD)
1. The measures adequately covered the reading skills in the grade level I teach.	31	4.6 (1.3)
2. Most teachers would find the measures appropriate for assessing reading difficulties	31	4.7 (1.1)
3. I believe the measures would be helpful in planning instruction for phonemic awareness.	19	5.2 (0.63)
4. I believe the measures would be helpful in planning instruction for phonics (alphabetic principle).	26	5.2 (0.65)
5. I would suggest the use of the measures to other teachers.	30	4.7 (1.3)
6. I would be willing to use the measures in my classroom.	31	4.8 (1.3)
7. I liked the procedures used for the measures.	31	4.7 (0.77)
8. The measures were a good way to assess students' reading strengths and weaknesses.	30	4.8 (1.17)
9. Overall, the measures would be beneficial for planning reading instruction.	31	4.7 (1.0)

Note. 1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Slightly Agree, 5 = Agree, 6 = Strongly Agree

Sample Teacher Comments…

- *"I would consider that for students that I refer to SIT team or when I need more in depth info on students, or questions about processing."*

- *"More ideas on what to do to help. Sometimes data just isn't enough."*

- *"The test was very thorough and really hit where the student's weaknesses were. However, the test did take a great deal of time to take. I don't know if it would be practical for a classroom teacher to use on all students. But, for low-readers, it is incredibly effective."*

Question 6

- To what extent are examiners satisfied with the measures?
  - Consumer data

Examiner Usability Questionnaire

Item	N	Mean Rating (SD)
1. The administration and scoring rules were easy to follow.	16	3.9 (0.99)
2. The materials were organized appropriately for efficient administration of the measures.	16	4.3 (1.0)
3. I believe that the number, type, and sequence of the items were sufficient to ensure that the students understood the task.	16	5.0 (0.51)
4. I believe that the tasks were appropriate to the age/grade level of the students I tested.	16	4.9 (0.57)
5. All items included within the measure were appropriate (e.g., all words seemed at the appropriate level, passages were of equivalent difficulty).	16	4.4 (0.89)
6. I believe that the scores obtained from the measure accurately reflect students' skill level.	16	4.9 (0.89)
7. I would suggest the use of the measures to others.	12	4.7 (0.98)
8. The measures were a good way to assess students' reading strengths and weaknesses.	14	4.8 (1.1)
9. Overall, the measures would be beneficial for planning reading instruction.	12	4.8 (1.3)

Note. 1 = Strongly Disagree, 2 = Disagree, 3 = Slightly Disagree, 4 = Slightly Agree, 5 = Agree, 6 = Strongly Agree

Sample Examiner Comments…

- *“Having a "cheat sheet" of when to discontinue- sometimes it is hard to find.”*
- *“A reminder after discontinue to go on to the Sight Words and Sentence Reading.”*
- *“Electronic administration would be helpful. It would be helpful to find the exact spot they need to go next.”*

Summary of Results

- Scope and sequence is generally accurate for grade level
- Strong correlations between measures of the same skill (.7 - .9)
- Moderate to strong correlations between measures of different skills (.4 - .7)
- Moderate to strong correlations between Deep measures and DIBELS measures of the same skill (.4 - .7)
- Ordering of items is generally accurate; additional analyses are ongoing
- Overall teachers agree that the measures are useful
- Overall examiners are satisfied with the usability of the measures

Discussion

- Next steps in DIBELS Deep Research & Development
  - Revise current measures
  - Conduct a normative study with PA & AP?
  - Linkage to DIBELS Survey
  - Piloting measures in expanded domains (CFOL)
  - Availability on the Palm

Discussion: What about RtI?

- Putting greater emphasis on the “I” in RtI!
  - Utility for Teachers
    - Use the information to better differentiate instruction both within and across instructional tiers.
  - Utility for special services personnel (e.g., reading specialist, reading coach, school psychologist)
    - Use the information in consultation with teachers about where and how to make adjustments to instruction for students, in particular, students in Tiers 2 and 3.
    - Could assist in the identification of appropriately targeted materials to be used by parent or peer tutors.

Questions & Discussion…

Students Given Deep Measures at Non-Target Levels in the Fall

- First graders given AP3 (n = 9) were above DIBELS' benchmarks (e.g., mean NWF = 37)
- Second graders given AP1 (n = 7) were below the DIBELS' benchmarks (e.g., mean NWF = 42, mean ORF = 18)
- Second graders given AP5 (n = 5) were well above the DIBELS' benchmarks (e.g., mean NWF = 67, mean ORF=77)
- Third graders given AP1 (n = 4) were well below the DIBELS' benchmark (mean ORF = 51)
- Fourth graders given AP2 (n = 6) were well below the DIBELS' benchmark (mean ORF = 67).

Students Given Deep Measures at Non-Target Levels in the Winter

- Kindergarteners given PA1 (n = 6) were below DIBELS' benchmarks (e.g., mean PSF = 9, mean NWF = 10)
- Kindergarteners given AP2 (n = 4) were well above the DIBELS' benchmarks (e.g., mean PSF = 46, mean NWF = 26)
- First graders given AP5 (n = 3) were well above the DIBELS' benchmarks (e.g., mean NWF = 109, mean ORF=100)
- Second graders given AP1 (n = 9) were well below the DIBELS' benchmark (mean ORF = 19)
- Third graders given AP2 (n = 4) were well below the DIBELS' benchmark (mean ORF = 58).

Sample Task: Deep PA Probe 1

Section A: Compound Words

A1. Blending Compound Words

Directions:

I am going to say two words that can be put together to make a new word. Like this: The words "hot" (pause) ***and "dog" go together to make the word _____.*** (Pause for up to three seconds.) If the child does not respond, say, ***Hotdog. "Hot" and "dog" go together to make the word "hotdog."***

Teaching the Task: Try one of the prompts below to teach the desired response.
 Hold up a hand for each word, and then bring hands together for the compound word. For example, say, ***hot*** (hold up right hand) (pause) ***dog*** (hold up left hand) (pause) ***hotdog*** (bring hands together). • Have the child do the above with you.

Turn the page and show the picture of hotdog.

Sample Task: Deep PA Probe 2

Section A: Blending

A1. Blending Two-Phoneme Words

I am going to say some sounds that can be put together to make a new word. Like this: The sounds /t/ (pause) ***/ie/ go together to make the word _____.*** (Pause for up to three seconds.) If no response, say, ***Tie. /t/ and /ie/ go together to make the word "tie."***

Teaching the Task: Try one of the prompts below to teach the desired response.

Hold up one hand for each phoneme then bring hands together for the whole word. For example, say, ***/t/*** (hold up right hand) (pause) ***/ie/*** (hold up left hand) (pause) ***tie*** (bring hands together).

- Have the child do the above with you.

Clap or tap the phonemes of the word.

- Have the child clap the phonemes of the word with you.

Place the appropriate number of cubes in front of the child. Touch and/or move a cube for each phoneme as you say the word.

- Have the child touch and/or move the cubes along with you — one for each phoneme — as he/she says the word with you.

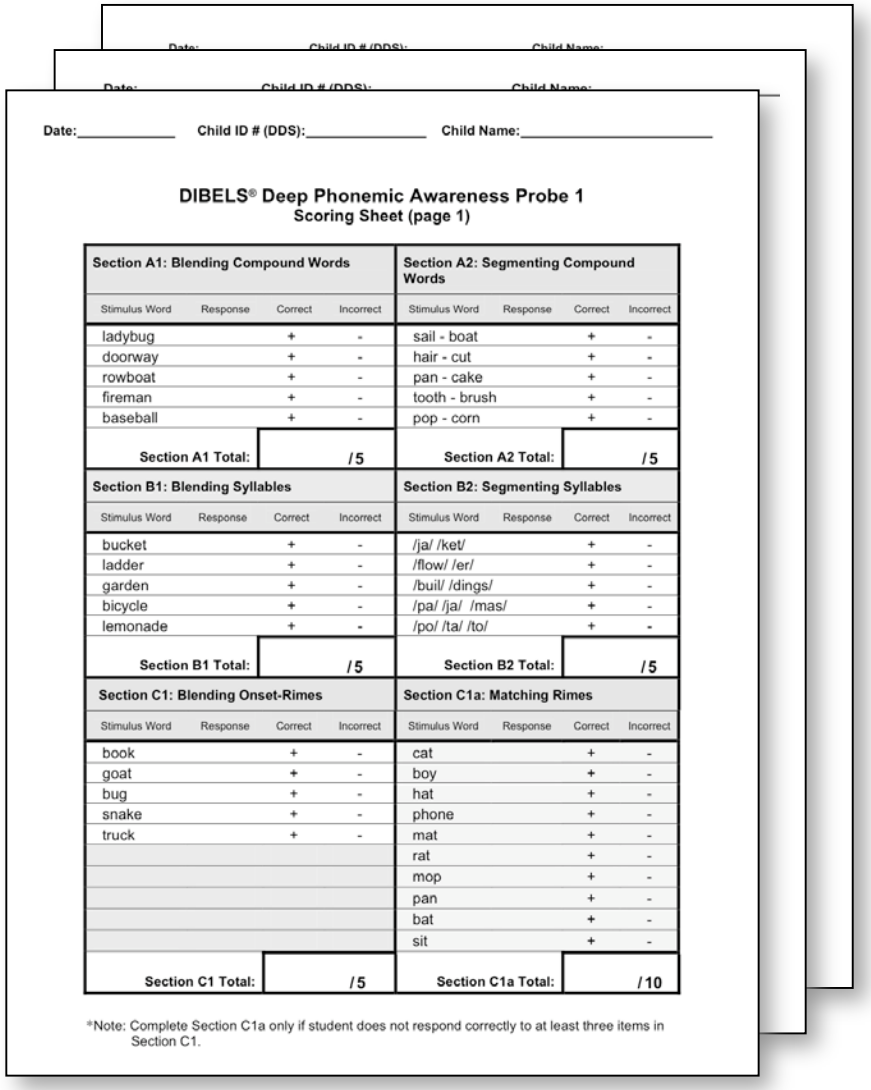
Place the sound box strip in front of the child. Touch a box on the strip for each phoneme as you say the word.

- Have the child touch a box on the sound box strip for each phoneme as he/she says the word with you.

I am going to say more sounds that go together. See if you know what word I am saying. Say sounds, separating each sound by about one second.

1. **/sh/** (pause) ***/oo/*** (shoe) After three seconds, ask, ***What word is this, /sh/–/oo/?***
2. **/p/** (pause) **/ie/** (pie)
3. **/k/** (pause) **/ee/** (key)
4. **/ie/** (pause) **/s/** (ice)
5. **/ee/** (pause) **/t/** (eat)

Deep PA Sample Scoring Pages



Date:_____ Child ID # (DDS):_____ Child Name:_____

DIBELS® Deep Phonemic Awareness Probe 1
Scoring Sheet (page 1)

Section A1: Blending Compound Words				Section A2: Segmenting Compound Words			
Stimulus Word	Response	Correct	Incorrect	Stimulus Word	Response	Correct	Incorrect
ladybug		+	-	sail - boat		+	-
doorway		+	-	hair - cut		+	-
rowboat		+	-	pan - cake		+	-
fireman		+	-	tooth - brush		+	-
baseball		+	-	pop - corn		+	-
Section A1 Total:		/5		Section A2 Total:		/5	
Section B1: Blending Syllables				**Section B2: Segmenting Syllables**			
Stimulus Word	Response	Correct	Incorrect	Stimulus Word	Response	Correct	Incorrect
bucket		+	-	/ja/ /ket/		+	-
ladder		+	-	/flow/ /er/		+	-
garden		+	-	/buil/ /dings/		+	-
bicycle		+	-	/pa/ /ja/ /mas/		+	-
lemonade		+	-	/po/ /ta/ /to/		+	-
Section B1 Total:		/5		Section B2 Total:		/5	
Section C1: Blending Onset-Rimes				**Section C1a: Matching Rimes**			
Stimulus Word	Response	Correct	Incorrect	Stimulus Word	Response	Correct	Incorrect
book		+	-	cat		+	-
goat		+	-	boy		+	-
bug		+	-	hat		+	-
snake		+	-	phone		+	-
truck		+	-	mat		+	-
				rat		+	-
				mop		+	-
				pan		+	-
				bat		+	-
				sit		+	-
Section C1 Total:		/5		Section C1a Total:		/10	

*Note: Complete Section C1a only if student does not respond correctly to at least three items in Section C1.

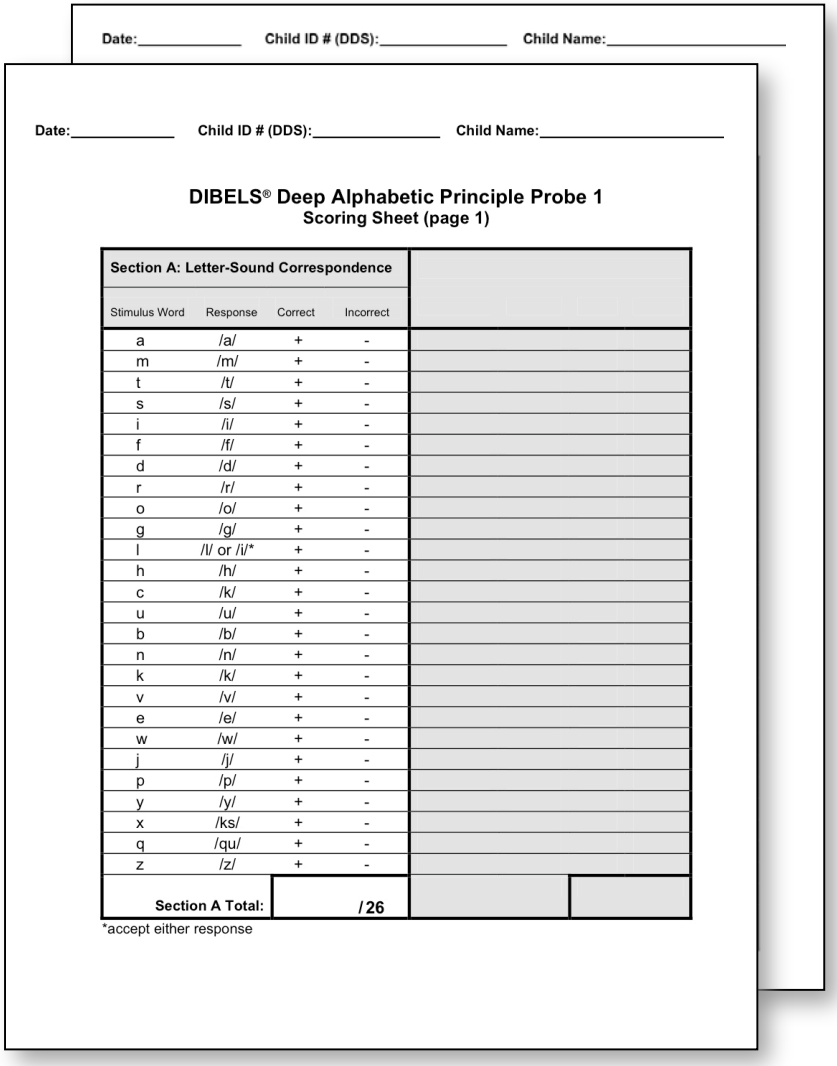
Quick Screen Routing to Deep

Table 2: DIBELS® Deep AP Entry Points By Item Analysis

Table 1: DIBELS® Deep AP Entry Point Based on Discontinue Rule

Quick Screen Discontinue Point	DIBELS® Deep AP Entry Point
Items #1 – #6	Probe #1
Items #7 – #21	Probe #2
Items #22 – #41	Probe #3
Items #42 – #53	Probe #4
Items #54 – #70	Probe #5

Sample Deep AP Scoring Sheet



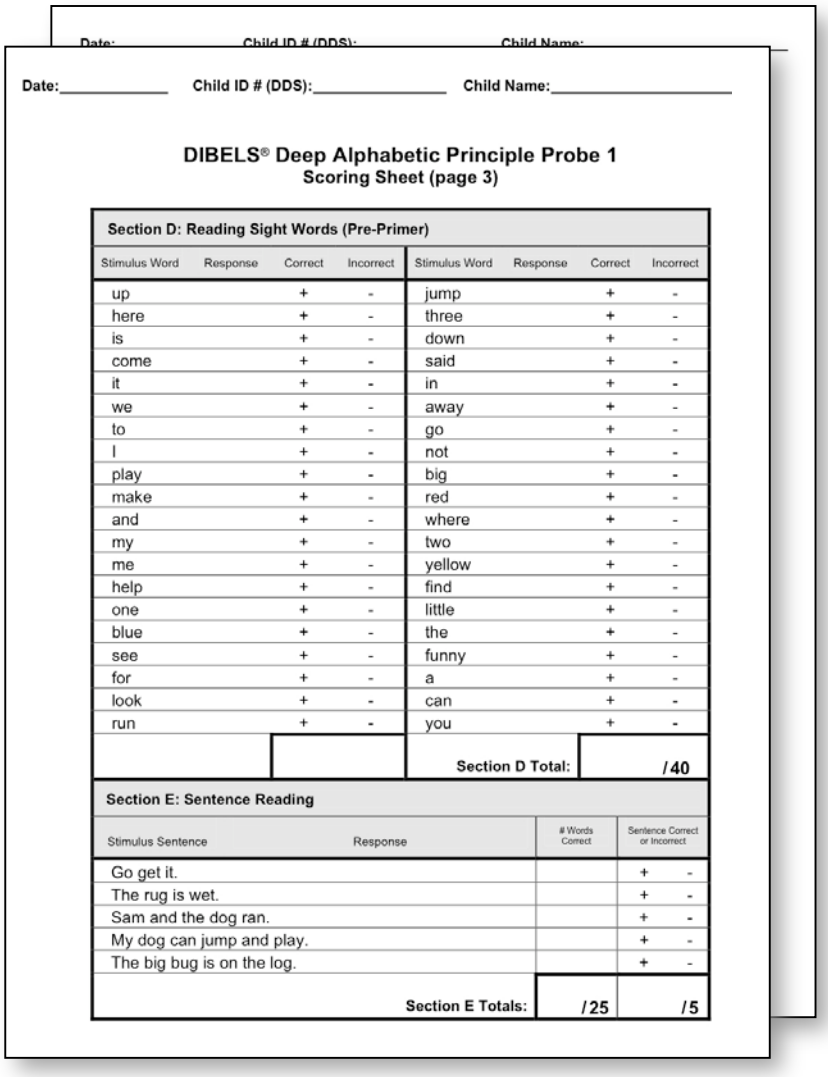
Date:_____ Child ID # (DDS):_____ Child Name:_____

Date:_____ Child ID # (DDS):_____ Child Name:_____

DIBELS® Deep Alphabetic Principle Probe 1
Scoring Sheet (page 1)

Section A: Letter-Sound Correspondence				
Stimulus Word	Response	Correct	Incorrect	
a	/a/	+	-	
m	/m/	+	-	
t	/t/	+	-	
s	/s/	+	-	
i	/i/	+	-	
f	/f/	+	-	
d	/d/	+	-	
r	/r/	+	-	
o	/o/	+	-	
g	/g/	+	-	
l	/l/ or /i/*	+	-	
h	/h/	+	-	
c	/k/	+	-	
u	/u/	+	-	
b	/b/	+	-	
n	/n/	+	-	
k	/k/	+	-	
v	/v/	+	-	
e	/e/	+	-	
w	/w/	+	-	
j	/j/	+	-	
p	/p/	+	-	
y	/y/	+	-	
x	/ks/	+	-	
q	/qu/	+	-	
z	/z/	+	-	
Section A Total:		/26		

*accept either response



Date:_____ Child ID # (DDS):_____ Child Name:_____

DIBELS® Deep Alphabetic Principle Probe 1
Scoring Sheet (page 3)

Section D: Reading Sight Words (Pre-Primer)

Stimulus Word	Response	Correct	Incorrect	Stimulus Word	Response	Correct	Incorrect
up		+	-	jump		+	-
here		+	-	three		+	-
is		+	-	down		+	-
come		+	-	said		+	-
it		+	-	in		+	-
we		+	-	away		+	-
to		+	-	go		+	-
I		+	-	not		+	-
play		+	-	big		+	-
make		+	-	red		+	-
and		+	-	where		+	-
my		+	-	two		+	-
me		+	-	yellow		+	-
help		+	-	find		+	-
one		+	-	little		+	-
blue		+	-	the		+	-
see		+	-	funny		+	-
for		+	-	a		+	-
look		+	-	can		+	-
run		+	-	you		+	-
				Section D Total:		/40	

Section E: Sentence Reading

Stimulus Sentence	Response	# Words Correct	Sentence Correct or Incorrect
Go get it.			+ -
The rug is wet.			+ -
Sam and the dog ran.			+ -
My dog can jump and play.			+ -
The big bug is on the log.			+ -
	Section E Totals:	/25	/5