Explanation and Analysis of Data

DIBELS Phoneme Segmentation Fluency (PSF)

This measure is administered by saying a word to the student and having them tell you what sounds they hear, for example: you say "ship." A correct response would be /sh/, /i/, /p/. (When a letter is written between two slash marks, it refers to the sound of the letter. We write "s" and "h" together between the slashes because they combine to form one sound.)

The original action research project proposed by a Master student/action researcher, was to focus the project on gaining phonemic awareness through a program called "Phonographix," which she had read about in my book as an appropriate reading intervention for struggling readers. I had worked with the three research subjects as their long-term substitute teacher, and thought they were beyond the need of this intervention. We asked the school to administer a DIBELS PSF assessment. All three performed at an acceptable level.

The student decided to focus on the effects of promoting fluency (automaticity) starting at the beginning phonics level of attaching the correct sounds to alphabetic letters, and moving through letter combinations (blends, digraphs, diphthongs), recognizing the six kinds of syllables, to oral reading fluency (ORF).

Student 1, who in September, was completely unable to read a third grade passage, excelled at this skill, suggesting an auditory strength. Student 3 did a fair job, but student 2 did not do as well. It was noted and during the intervention phase of the project, I gave her more practice with auditory discrimination than the other two.

Student	PSF 1/11/11
1	46
2	31
3	36

DIBELS Nonsense Word Fluency (NWF)

For this measure, the student is shown a sheet of consonant-vowel-consonant nonsense words arranged in rows. The words are either two or three letters in length. Credit is given for each correct letter sound (CLS) the student identifies, but they also receive credit for whole words read (WWR) if they decode the letters blended together as a word instead of reading the sounds in isolation first.

All three students made significant progress in this area. Student 1 had the most difficulty and depended more on decoding the individual sounds. Student 2 went down by 2 in WWR, but she was already reading 27 WWR during the initial assessment. 25 is still a good score. This was a strength for her. Student 3 did very well with this as well.

Student	NWF (pre) 1/11/11	NWF (post) 3/17/11	Change
1	47 cls 14 wwr	57 cls 19 wwr	up 10 up 5
2	89 cls 27 wwr	96 cls 25 wwr	up 7 down 2
3	70 cls 22 wwr	73 cls 24 wwr	up 3 up 2

DIBELS Oral Reading Fluency (ORF)

To administer an ORF measure, the student reads three short passages written at grade-level. Any divergence from the exact wording of the test counts as an error, as well as any word the administrator provides if the student pauses for more than three seconds. The score is the number of correct words per minute after the errors are subtracted. For example, on the chart below I've written one score as **22/8 73%**. That means the student read 22 correct words in one minute (CWPM) with 8 errors which gave him an accuracy score of 73%. This is very low for a fourth grader. When giving a Benchmark assessment (given only at the beginning, middle, and end of the school year), three passages are provided. The administrator then selects the middle score for CWPM and errors.

It should be noted that researchers throughout the United States have noticed that ORF is the last score to improve as a struggling reader begins to catch up in reading skill, and the older the student, the slower the ORF increases. The school district where I work considers an intervention to be working if the ORF score rises by **.9** words per week for a fourth grader. With that in mind, all three of the students made acceptable growth in ORF during our project. Student 1 barely made the necessary growth in number of words read, but his growth in accuracy is excellent and foreshadows an increase in rate as well, if we had continued.

Student	ORF (pre) 1/29/11	ORF (post)	Change
1	22/8 73%	29/6 83% 3/15/11	up 7/2 up 10%
2	36/8 82%	56/6 90% 4/7/11	up 20/2 up 8%
3	51/8 86%	61/6 91% 4/7/11	up 10/2 up 5%

The second part of the ORF measure is called the Retell. It is the attempt by the designers of DIBELS to measure comprehension. As soon as a passage is read, the book is closed and the student is encouraged to tell the administrator as much as possible that he or she remembers from the passage. The administrator keeps a quick tally of the number of words in the student's response. This number becomes the score. The administrator also gives a score from 1-4 (4 being excellent) for the quality of the retell. Again, the middle score from the three passages for number of words in the retell and the quality are recorded as the final score for the benchmark.

In January, student 1 refused to do a retelling. This was very unfortunate, but not out of character for him. Being asked to read anything was a trigger to negative behaviors. That attitude completely changed during the project. He now takes pride in struggling through a passage and his comprehension is remarkable considering how hard he still has to struggle. But the important thing is, now he will slog his way through any passage with very good comprehension.

Student	Retell (pre) 1/11/11	Retell (post) 3/15/11	Change
1	He refused to do it	34 words quality 3	up 34 up 3
2	15 words quality 1	30 words quality 3	up 15 up 2
3	35 words quality 3	51 words quality 4	up 16 up 1

Read Well 1 and Read Well 2 Placement Assessments

READ WELL is a curriculum based on the most current research regarding explicit instruction of phonics balanced with comprehension and fluency. It is designed to be a grade-level core curriculum for first and second graders, or as an intervention for struggling readers if their reading level falls within the first or second grade. It includes a placement assessment of skills that is quick to administer and gives solid information for focusing instruction. The assessment has two main parts. Part A includes four subtests: recognizing letter names, recognizing letter sounds, recognizing high-frequency words, and decoding some simple words requiring the most basic phonics knowledge (consonant sounds, short vowel sounds, and some long vowels with the most common spellings such as "ee." Part B includes reading passages of increasing difficulty, ranging from very simple pre-primer level to end of second grade. (This was an appropriate level to measure all three of our subjects, as determined through DIBELS and other assessments.)

We used the **READ WELL PLACEMENT ASSESSMENTS** for two reasons: 1) we wanted to see exactly which letters and sounds the students had actually mastered, 2) we also wanted to see at what level the students were able to decode simple first and second grade passages, as well as their fluency rates in those passages.

Letter Names and Sounds

All three students knew all of the letter names, but the letter sounds were not automatic for any of them. Students 1 and 2 made several self-corrections (sc) and even Student 3 missed one on the pretest. By the end of the project, all three students knew all letter sounds automatically.

Student	Letter Names (initial - final) 26 possible	Change	Letter Sounds (initial - final) 26 possible	Change
1	26 - 26	none	25 (3 sc) - 26	+1 (-3sc)
2	26 - 26	none	22 (1 sc) - 26	+4 (-1sc)
3	26 - 26	none	25 - 26	+1

High-frequency and Pattern (Decodable) Words

The three students also did well on this. but the scores do not reflect is the change in rate. The students were cautious the first time, but flew through it the final time. They. The one error student 2 made was a careless one caused by her "showing off" how fast she could go. She read "that" for "at." When I asked her later to identify the word, she couldn't believe she had missed it.

Student	High-frequency Words (initial - final) 20 possible	Change	Pattern Words (initial - final) 20 possible	Change
1	18 - 20	+2	18 (5 sc) - 18 (1 sc)	+0 (-4sc)
2	20 (1 sc) - 19	-1 (-1sc)	18 (1 sc) - 20	+2 (-1sc)
3	19 - 20	+1	19 - 20	+1

sc = self-correction

READ WELL PART 2 begins with testing sound recognition and very simple ORF passages of just a few words that are appropriate to specific units in **READ WELL.** There are assessments for Units 3, 5, 9, 15, 20, 23, and 38; as well as **READ WELL 2** Units 7 and 20. This allows the teacher to place the students at an instructional level within the program. By Read Well 1 Unit 20, they drop everything but ORF as the placement tool. This is my first year using the program, and although **READ WELL** bases everything on a fluency score, we found that not to be completely accurate with older students since their fluency is not truly representative of their phonics knowledge. We have had to make adjustments to place our students at an instructional reading level, so I included a score to represent the Unit where their decoding fell below two errors that changed the meaning per passage.

Although it is not standardized, this assessment probably showed growth most accurately. Where it had been painful to administer in January because of the extreme difficulty students 1 and 2 experienced, all three students read through it with ease during the final assessment. Student 3 did well back in January, which showed her strength in using context clues, but when words are in isolation, she floundered. Her comprehension in **READ WELL 1** level materials was excellent.

By the end of the project, all three students completed **READ WELL 1 PLACEMENT ASSESSMENT**. Students 1 and 2 failed to pass Unit 38 by just one word. They both missed three words (the cut-off was two). Student 3 went on into **READ WELL 2'S PLACEMENT ASSESSMENT** and passed up to Unit 7.

Student	Unit where Fluency failed (initial)	Unit where Fluency failed (final)	Change	Unit where Decoding failed (initial)	Unit where Decoding failed (final)	Change in RW Units
1	Unit 9	Unit 23	up 14	Unit 9	Unit 38 (by 1)	Up 29
2	Unit 20 ?	Unit 38	up 18 ?	Unit 20	Unit 38 (by 1)	up 18
3	passed all	RW2 Unit 7	up 7	Unit 38	RW2 Unit 7	up 7

Words Their Way – Elementary Spelling Inventory (ESI)

WORDS THEIR WAY by Donald R. Bear, Marcia R. Invernizzi, Shane Templeton and Francine R. Johnston (publisher: Pearson) has an effective Elementary Spelling Inventory (ESI) for administering to all your students at one time. It doesn't matter what their spelling level is, from emergent spellers to spelling whizzes who can practically memorize the dictionary. In one 25 word spelling test, ranging from "bed" to "opposition," the authors assess all levels of encoding ability, which their research (and others) shows is closely related to decoding skills necessary to read.

Student	Initial # correctly spelled words	Final # correctly spelled words	Change
1	4	4	no change
2	5	6	up 1
3	3	7	up 4

Each word is broken down into two or three features that a person would need to know in order to spell that word correctly, for example: "shower" has three features – "sh," "ow," and "er." There are a total of 62 feature points possible on the **ESI**. The students receive one point for every word spelled correctly, and a feature point for every feature they spell correctly. The final score is a combination of these two scores. The features are listed in categories ranging from initial consonants to Latin and Greek bases and roots. The category where the student misses more than one feature point is the level where the teacher should focus spelling instruction for that student. Although it is a "spelling" inventory, I believe it is also an excellent assessment of a student's decoding level.

Student	Initial # feature points	Final # feature points	Change
1	28	33	up 5
2	33	34	up 1
3	28	35	up 7

Student 1 didn't improve the number of words he spelled correctly, but that is deceiving. He gained five feature points, which raised his level of spelling focus from late "Alphabetic" to early "Within a Pattern."

Student 2 spelled one more word correctly and gained 1 feature point. Her level stayed the same.

Student 3 spelled four more words correctly, and gained seven feature points, raising her spelling level by two categories.

	Spelling Stage (initial)	Spelling Stage (final)	Change
1	5 late "Alphabetic"	6 early "Words in Pattern"	up 1 level
2	6 early "Words in Pattern"	6 early "Words in Pattern"	no change
3	5 late "Alphabetic"	7 mid "Words in Pattern"	up 2 levels

Fluency Practice Drills

The last assessments we used were three different sheets for fluency drill with 100 possible items covering:

- sounds

- decodable words

- high-frequency words

The students were instructed to read as many as they could in one minute.

Student	Sound Fluency (initial)	Sound Fluency (final) *red = Feb. score, black = final score	Change
1	63	82 76	up 19 up 13
2	40	58	up 18
3	35	75	up 40

* I forgot to test Sound Fluency for student 1 when I administered his other final tests on 3/11/11, so I administered the test without any review or warm-up three weeks later. His mid-intervention scores were higher, but this student always needed a little warm-up or review to get his mind going.

Student	Decodable Word Fluency (initial)	Decodable Word Fluency (final) red = Feb. score, black = final score	Change
1	21	40	up 19
2	40	44 42	up 4 up 2
3	33	43	up 10

Student	High-frequency Fluency (initial)	High-frequency Fluency (final)	Change
1	22	44	up 22
2	55	75	up 20
3	80	88	up 8