Data Analysis and Interpretation Paper
Data Analysis and Interpretation with Technology Module: EDHD 435
Part 3

Fall 2004
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December 1, 2004

I am in a kindergarten class at Bel Pre Elementary School. The class is made up of 18 students, 17 of them are first time kindergartners and one of them is in kindergarten for the second year in a row. Nine students in the class are LEP students with a wide range of first languages from Spanish to French to various African dialects. Three students in the class have individualized education plans (IEP).

The data that I have collected is in the domain of literacy. I have collected data in six categories under that domain which include: record of oral language, letter identification, concepts about print, phonemic awareness, hearing and recording sounds, and word recognition. This data is collected quarterly from each of the students, and this particular set of data was taken in the fall within the first month of the school year. This data has so far been used to place the children in homogeneous guided reading groups according to their scores in each of the six categories. The scores in each of these six categories can help teachers plan their lessons for different students, or in the case of my classroom to plan the guided reading lessons for the different homogenous groups. In order to better understand the data from each of the six categories, I have created pie charts depicting the students' scores by the color-coded group that they fall into. Each student's score is color-coded blue, green, yellow, or red. The definition of each color-coded group differs from category to category but in all categories the color-coded groups range from lowest to highest in the following order: red, yellow, green, blue.

The purpose of letter recognition is the assess recognition of all letters (52), upper and lower case (plus a and g). A name, sound, or a word beginning with the letter are all considered acceptable identification of a letter.

Figure 1 can easily assess the data for the category of letter identification. The blue group represents students whom identified 50-54 letters, the green group is 40-49 letters, yellow is 31-39, and red is 0-30. Less than half of the class is in the highest group, identifying 50-54 letters; however 44% is fairly good for the beginning of the school year. Students in this group are in the highest reading group and have begun reading early emergent books. Those students have almost all letters and will pick up the rest through reading and writing, and would be bored by basic letter practice. The green group, which at this point represents a small portion of the class, will benefit from group activities such as the *Name Game* used to reinforce letter names in the helper of the day's name or *Go Fish*. Also an ABC center could be used to reinforce letter names with activities on different difficulty levels. The yellow and red groups have minimal letter knowledge and therefore need to work with magnetic letters and do letter sorts, such as letters with curves, straight lines, or both.

Figure 1: Fall Letter ID
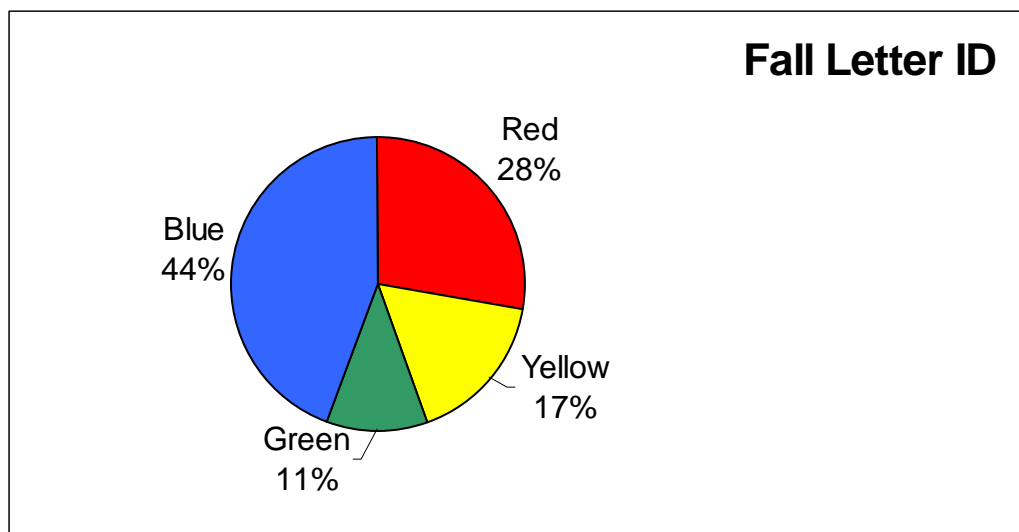
The children's concepts about print (CAP) prove less promising than the students' knowledge of letter identification by looking at Figure 2. The purpose of the CAP

assessment is to help teachers observe children's recognition of the conventions of print and characteristics of written language. Concepts of print include directional movement (left to right), one-to-one matching of spoken words to written words, book conventions, and punctuation. There are a total of 16 concepts of print identified in this assessment. Students whom have recognized 13-16 concepts are in the blue group, green is 9-12, yellow is 4-8, and red is 0-3. Looking at Figure 2, this class needs a lot of work on concepts of print because 61 percent of students in the class know less than 9 concepts of print (combination of red and yellow groups).

Concepts about print should always be taught through the process of reading. By simple modeling the correct use of books during a shared reading. Questioning and verbalizing the correct use of a book during daily read-alouds can quickly improve these skills tremendously. Once a book has been read several times, the students may read on their own while practicing pointing to the words, reading from left to right, identifying the parts of the book, etc. In order for children to be able to read they must first understand the basic conventions of reading and writing.

Figure 2: Concepts About Print
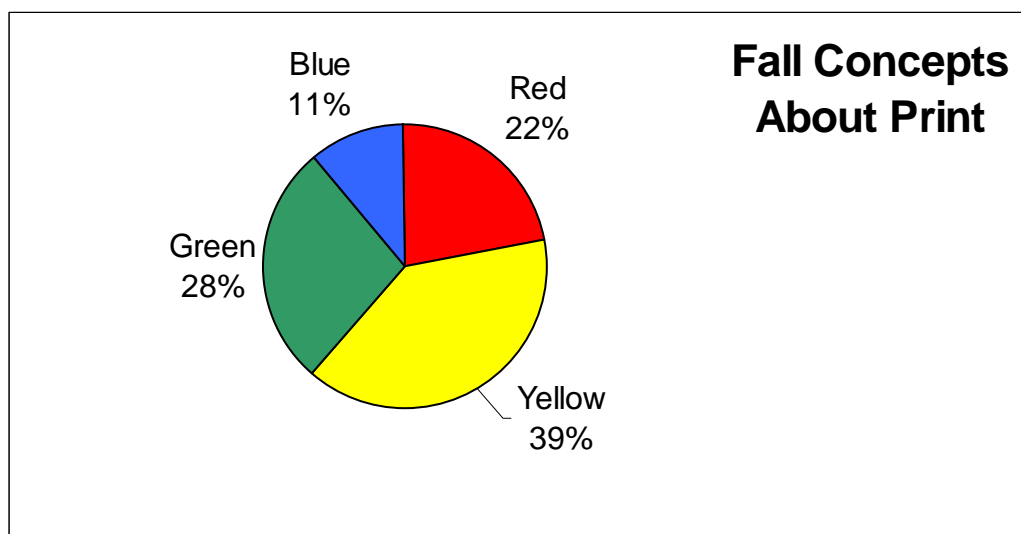
With many students not being able to identify their letters, and less children understanding the conventions of reading and writing, it comes to no surprise that this class is struggling in their word recognition. Word recognition is a test of selected high-frequency words and common phonograms. This assessment is an indication of a student's ability to accumulate a reading vocabulary of high-frequency words. This class consisted of the red and green groups, meaning children whom fell in the red group knew 0-6 words, while children in the green group knew 19-22 words.

There are many implications to teaching word recognition; however based on the scores in the other categories this class is not ready for reading words. Once they have scored in the blue in the other five categories, they will be able to move onto word recognition. Instructional implications for word recognition include isolating the target word in text, name and count letters in word, discuss short and tall letters, use magnetic letters to spell and sound out words, and many more.

Figure 3: Word Recognition
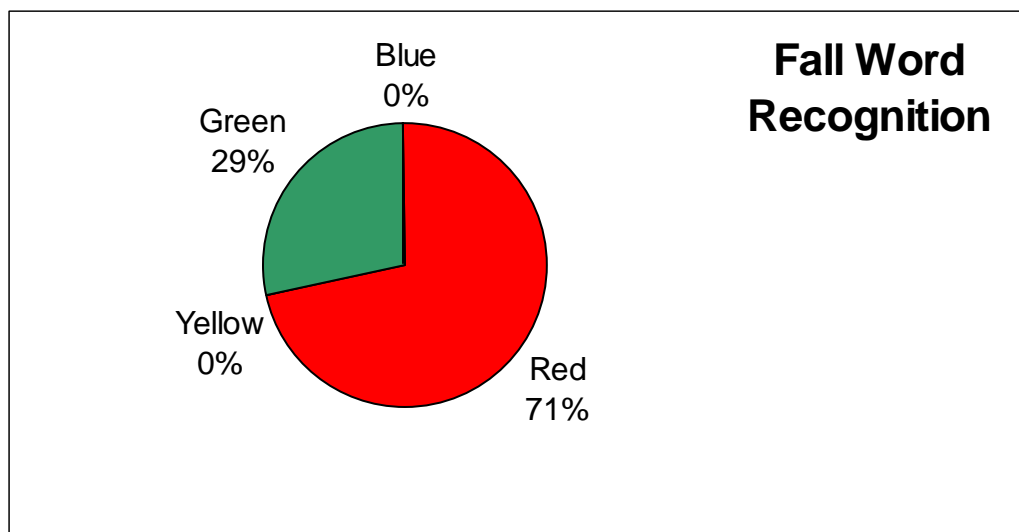
The Hearing and Recording of Sounds assessment is directly linked with the phonemic awareness assessment as seen in Figures 4 and 5. The difference is the hearing

and recording sounds assessment provides an indication of a student's ability to hear sounds in words and represent them in their writing, while the phonemic awareness assessment simply assesses the child's ability to understand and manipulate individual sounds (phonemes) in the spoken language. The total number of sounds that are recorded correctly represents the scoring for the hearing and recording sounds assessment. The phonemic awareness scores are made up of the number of correct responses to a series of questions from naming a rhyming word to matching pictures of words that start with the same sound. The two categories go hand in hand, in order to be successful at recording the correct sounds, a student must be able to manipulate and understand sounds when speaking.

Looking at Figures 4 and 5 it is evident that students did better on the hearing and recording sounds assessment than the phonemic awareness assessment. The reasoning for this is the phonemic awareness assessment asks questions about rhyming words and rhyming words are very difficult for Spanish-speaking children to understand because there are no rhyming words in the Spanish language. Even if children are fluent in the English language the concept of rhyming is something that is taught, and some children simply may not comprehend the concept yet. Also the assessment itself requires mastery of the English language due to all the oral questioning from the proctor, while the hearing and recording sounds assessment requires the students to simply writing what they hear. So yes phonics and recording sounds are directly correlated, but due to the nature of the assessments in some ways they are not.

Looking at Figure 5 it is apparent that this class needs a lot of beginner practice with phonics. Students whom scored in the red group answered 0-3 questions correctly.

Instructional implications for students with little or no phonemic awareness include

having children close their eyes and identify mystery sounds or have children identify the

number of words in a sentence to ensure that they are listening to the language. Once the

students are listening to the language then instruction can begin with syllables and chunks

in words, narrowing down to individual sounds in words.

Figure 4 proves that some students in the class have an understanding of what

letters are associated with what sounds, and a small percentage of students have reached

proficiency identified in the blue group. Students whom scored in the red recorded 0-3

sounds correctly, yellow is 4-9, and blue is 13-15. No students in the class scored in the

green, which would mean that they identified 10-12 sounds correctly, which represents

somewhat of the middle ground. This data shows that the students in the class either

have a clear understanding or hardly any at all. The blue group, making up only 11

percent of the class, represents the percentage of students that have a clear understanding.

With this assessment being done at the beginning of the year many students may be able

to identify a sound in a word, but without being taught all their letters they will not know

how to record the sound. The beginning of the year assessments are difficult because

some children may understand the topic that they are being assessed on but might not

have the background knowledge to complete it. Instructional implications for this

assessment would first include comprehension of phonics then a focus on sounding out

unknown words by identifying each sound in a word.

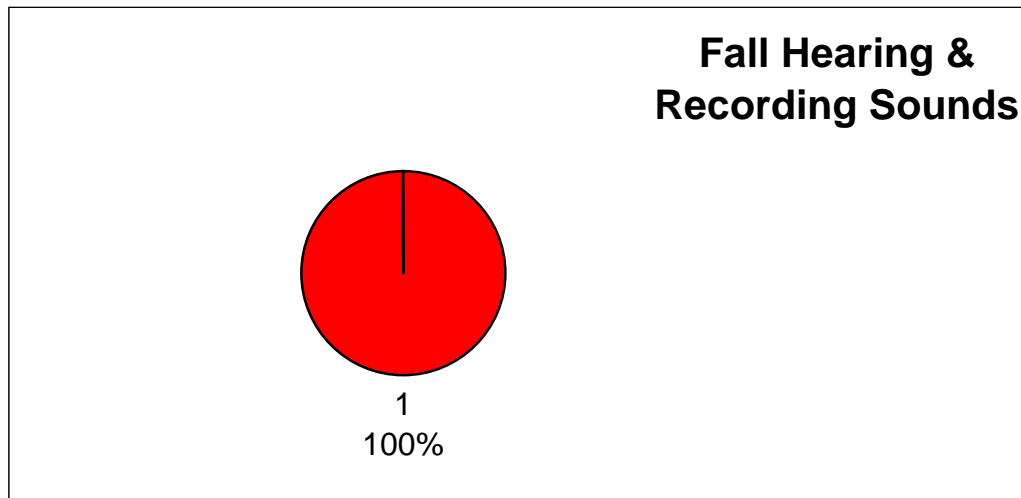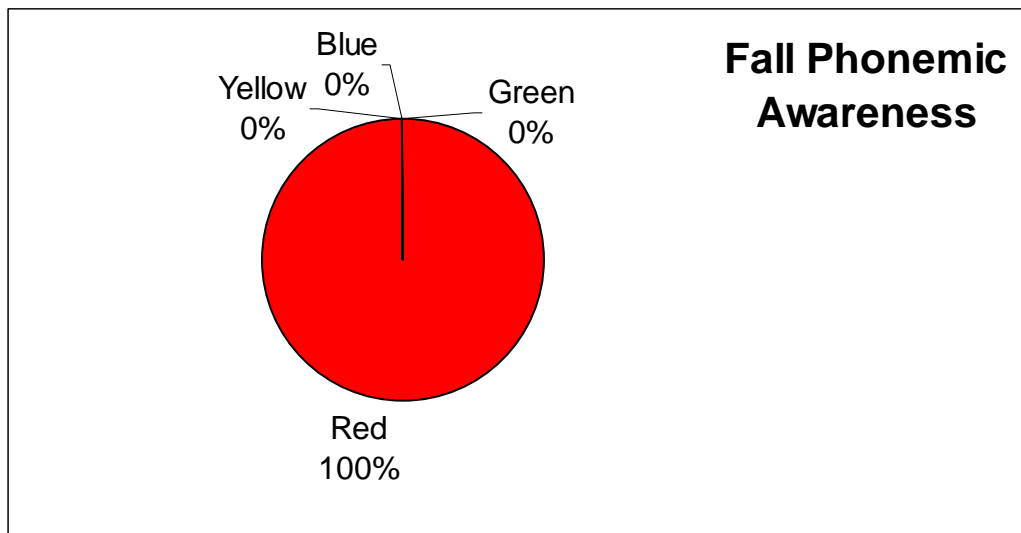*Figure 4: Hearing and Recording Sounds*

**Fall Hearing &
Recording Sounds**

1
100%

Figure 5: Phonemic Awareness

**Fall Phonemic
Awareness**

Blue
Yellow 0%
0%
Green
0%

Red
100%

    The record of oral language assessment is designed to identify whether or not

a student has mastered the structure of the English language. This entire assessment

consists of children repeating sentences that the proctor has just verbalized to them.

Missing words in the repeated sentences indicate the elements of structure that the

student does not understand. Communication would be near impossible without

comprehensive skills in oral language. The scores are representative of the number of

sentences that a student repeated correctly. 94 percent of the class is represented by the

red group meaning they repeated 0-6 sentences correctly, and 6 percent of the class is

represented by the yellow group meaning they repeated 7-12 sentences correctly as seen

in Figure 6.

It comes to no surprise that this category is such a weakness in this class since

half of the class is made up of English language learners. Instructional implications

include facilitating daily discussions where children are given many opportunities to

verbally answer questions or voice their thoughts. Also giving directions orally instead

of having them written or depicted through pictures. Simply having children talk as

much as possible is the number one way to increase children's oral language skills, and

sometimes school is the only opportunity for children to engage in meaningful

conversation.

Figure 6: Record of Oral Language