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ABSTRACT

This paper proposes prognosis testing through teaching-learning situations as an effective alternative to modality testing. In modality testing the severely disabled learner's poor self-concept and short attention span adversely influence test results, and the child's preferred learning style is not determined. Prognosis testing is based on the premise that the decoding of words can only be mastered by sight words or phonics learning. Within these two approaches, there are alternative methods of learning that can be matched to the child's preferred learning style. The Spelling Pattern Prognosis Test, the Language Experience Prognosis Test, and the Phonics Prognosis Tests are short tests developed by the author for determining a preference in learning words by sight. These tests are based on language experience, spelling patterns, and basal reader methods of teaching whole words. The prognosis test for phonics learning helps determine a child's facility in discriminating sounds, associating sounds to symbols, and blending sounds to form words by two alternative methods. The results of prognosis testing prescribe the best approach for teaching disabled readers, and this procedure is more productive than modality-type testing. (Author/WR)

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INSTRUMENTS FOR DIAGNOSING SEVERE READING DISABILITY

Within the past few years, a new sense of urgency has arisen over children who are not making normal reading progress according to their ability. Fanned by the popular press which announces and reannounces exciting new breakthroughs in the diagnosis and treatment of problem learners, parent pressure groups have pushed many state legislatures to pay more support money for children labled "dyslexic," "perceptually handicapped," "learning disabled," or "minimally brain damaged" than they pay for children with reading disability.

Schools and clinics across the country find themselves pushed by the legislatures into making increasingly more complicated but meaningless diagnoses using quasi-medical jargon. Instead of saying that a child is poorly motivated or does not attend in learning situations, he is now called "hyperactive." In place of problems in visual discrimination, left-to-right directionality, or confusion of easily confused letters and words, the child

is diagnosed as dyslexic or perceptually handicapped. In many instances, case study reports seem designed to obfuscate the problem rather than to clarify it; unfortunately, meaningful diagnosis -- and of more importance, prescription leading to remediation -- has not advanced at the rate with which new names for disabled readers have been generated.

To keep pace with the demand for psuedo-medical diagnosis, more complicated and esoteric testing devices must be discovered, rediscovered, or subverted from their original purposes. So reading specialists dabble with the I.T.P.A., the Frostig, the Bender-Gestalt, and the WISC, even though none of these instruments is capable of providing specific direction to remediation.

Every reading specialist worth his salt has always been aware of the frailty of a straight reading diagnosis. The child's reaction to the testing situation and the tester may well lower or raise the child's performance. The disabled reader's self-concept may also be so low that he expects failure on every task, and his consequent poor performance serves to reinforce this low self-esteem.

In establishing reading performance levels for a child during the reading diagnosis, individually administered oral and silent reading tests are used, since they allow the examiner to study closely the child's reactions to the testing. Even in this type of direct performance situation, the reading specialist learns to question his results. To imagine that short reading selections can be used to accurately assess performance levels is stretching the believable. Consequently, the child is usually given several reading tests to confirm the obtained reading levels.

Even after great care has been taken in establishing the child's reading level, the reading specialist is not comfortable talking about a specific

reading score such as 2.5. He realizes that this score does not mean that the child can read all middle second grade materials nor does it mean that the child cannot read some materials at higher levels. Trying out a specific material that should be useful in remediation is a final step taken by the careful specialist to insure successful instruction.

When the reading specialist carries the testing a step further, and begins to test subskills of reading apart from the reading process, he knows that his obtained results are even more questionable. Isolated tests of sight vocabulary, structural analysis, and phonics cannot really sample these components of the reading process. Reading cannot be broken down into so many parts of this skill added to so many parts of that skill. Even if the tests of reading subskills were valid measures, good readers do not use all of the reading subskills in exactly the same proportion. Also, one child may do well on a test of phonics skills but never use phonics to attack unknown words, while another child may test quite low on phonics skills but appear to use phonics skills quite well in combination with the context during reading.

The experienced reading specialist learns not to trust all of the test data he gathers, but he uses these scores, observations of reading technique problems, and inferences made during testing to reach tentative conclusions he hopes will be of benefit in aiding the child. This exercise of clinical judgment is fraught with danger but in most cases leads to positive remedial steps designed to alleviate the reading problem.

If reading diagnoses based on a careful sampling of the reading process and reading related skills are at best hazardous ventures, consider for a moment the extended danger when non-reading type measures are used in the

diagnosis. Most of the non-reading type tests begin with a plausible theory about the probable underlying processes in learning to read. A theoretician might propose, as have Birch and Belmont (1965), that the ability of children to associate or integrate auditory and visual information is an important underlying process in learning to read.

On the surface level, this hypothesized ability in Auditory-Visual Integration seems quite logical. Children must associate the names of letters with their grapheme counterparts in mastering the alphabet, the different speech sounds with letters in learning phonics, and oral word names with printed words in sight word learning. Thus, children with adequate or strong ability in AVI are likely to learn to read, while children with AVI deficiencies will experience great difficulty in learning to read.

While it has been relatively easy to follow the theoretician up to this point, the usefulness of the AVI construct becomes less clear when the actual measurement of this ability begins. One way to sample children's ability in AVI would be to test their accuracy in matching the sounds of pencil taps to printed patterns of dots, as did Birch and Belmont. In their test, the children listened to a tap pattern, such as one with two taps rather close together in time, a brief pause, and another tap. The children then selected which of three printed dot patterns was the visual equivalent of the auditory pattern: . . . .

Since this test does require children to associate auditory and visual information, it is reasonable to assert that this is a measure of Auditory-Visual Integration. However, this is only one way in which AVI ability might be measured, and the relationship between this ability as measured and the ability required in letter, phonic, or sight word learning is quite

nebulous. To conclude that a child needs training in AVI after failure on this test, forces one to believe that there is an AVI muscle in the brain that can be strengthened through exercise. It necessitates the belief that training the child to match tap and dot patterns will aid in teaching him the alphabet or phonics skills. Such testing and training of hypothesized subabilities of reading is at best counterproductive.

Research into other "reading abilities" has also indicated that different measures of an ability will produce ambiguous results. For example, Dykstra (1966) tested large numbers of first graders on seven commonly used measures of auditory discrimination and found that there were rather low intercorrelations between these measures. Correlations between each of these seven auditory discrimination tests and later reading success were not high enough to indicate that predicting reading success or failure was possible by use of these tests. Evidently, great care should be exercised in selecting and interpreting tests of subabilities in reading.

A more productive strategy than ability testing for the severely disabled reader is the use of prognosis testing. This strategy is based on the premise that the disabled reader can be profitably taught if the best instructional approach for the child is found and used. Prognosis testing implies that there are no disabling conditions within the child that prevent him from learning to read and assumes that the child has not become an established reader because the previously used teaching strategies were not appropriate.

While there are hundreds of beginning reading methods that might be employed to teach the disabled reader, these methods are different versions of two main instructional approaches, learning by whole sight words or mastering sound-symbol relationships that are blended to form words. In

prognosis testing, the child is placed in a basic teaching-learning situation to determine which of these two approaches will provide immediate success.

Sight Prognosis Tests

The mastery of sight vocabulary is important in remediation since there is a core of very high frequency words, many of which are not easily attacked through phonic analysis. The linguistic spelling pattern method, the basal reader method, and the language experience method have proven effective in working with different types of disabled readers and can be used to form a series of sight prognosis tests.

The "Spelling Pattern" method, like the Bloomfield-Barnhart Let's Read or Merrill Linguistic Readers materials, is keyed to spelling regularity of English rather than to the sound-symbol regularity of phonics. The children are taught matrices of word families (Dan, fan, man, can -- mat, fat, cat, rat) through spelling, and even though these same matrices have formed the basis of many phonics approaches that emphasized consonant substitution or base blending, children are not directly taught that letters represent sounds.

The following is one example of a Spelling Pattern Prognosis Test* that can be constructed to determine the usefulness of this method in teaching beginning reading:

Dad	Dad was mad.
Tad	Tad was sad.
mad	Tad was a bad lad.
sad	
bad	Was Dad sad?
lad	Was Tad mad?
	Was Tad a bad lad?
was	
a	

*The prognosis tests used as examples in this paper are part of the Prescriptive Diagnosis Test constructed by the author and printed by the University of Missouri-St. Louis.

In teaching this lesson, the six pattern words are taught through spelling each word in the list several times. The two non-pattern words are not spelled but are taught as whole sight words. The examiner notes how many repetitions of the list of words are necessary for mastery (two or three repetions is good -- six or more means this will be a very slow method). The child reads the story after the list is mastered, and no more than one error on a pattern word should be made. After a delay of thirty minutes, the child again reads the story and should make no more than one pattern-word error.

The basal reader or "Story Type" method for developing sight word mastery uses a picture for the stimulus in teaching a list of words. Appropriate stories for this testing can be drawn from many sources, or they can be developed from a photograph, as was the following story based on a picture of a ten year old boy who is reaching for a white cat hiding in some bushes:

Billy	Billy found the kitten.
found	The kitten was white.
kitten	Billy took the kitten home.
white	Was the kitten white?
took	Was Billy the white kitten?
home	
was	
the	

Each of these words is taught through a discussion of the picture, with the child being encouraged to note the initial letters of the words. After the picture discussion, the child repeats the words several times after the examiner. As with the Spelling Pattern method, the child should master the word list after a few presentations of them, and no more than one story error should be made on the first reading or the thirty minute delayed reading.

The Language Experience method uses the child's own sentences in the teaching of sight words. Any picture can be used to develop a short story, but efforts should be made to keep the story short so results from this teaching-learning situation are comparable to the other two sight tests. In the testing described below, a picture of a dog is used to develop a three line story. While the directions tend to prescribe what story the child will write, this deviation from the normal language experience style is probably of little consequence in a short testing session.

Language Experience Prognosis Test

"This is a dog named Hank. Can you write a story about him? You tell me what to say and I'll write it down."

Questions Asked	Typical Responses	Words for Testing	
What should be our title?	Hank	is	white
What is Hank?	Hank is a dog.	dog	looks
What colors is he?	He is black and white.	he	real
How does he look?	He looks real funny.	black	funny

After the story has been written, the child is encouraged to read his story aloud several times as the examiner points to each word spoken. When the child appears to know his story, the child is asked to identify in the context each of the words selected for testing. If the child seems to have learned the words easily after only two or three repetitions, he is tested on the eight words in isolation and retested after a delay of thirty minutes. The child should miss not more than one word on both the immediate and delayed presentations of the list of words.

When utilizing sight prognosis tests as outlined above, a great deal of examiner judgment is required. All three of the sight tests need not be given to an individual child if his performance is good on one of the first

given tests. Often, when the examiner selects as the first test the one that will probably be best for a child, only one sight test will need to be given to prove that the child can be taught sight words immediately.

Phonics Prognosis Tests

While phonics instruction for a disabled reader could be delayed for a time, and eventually accomplished through an analytic approach which asks the child to develop generalizations about sound-symbol relationships from the consistencies encountered in the sight words he has learned, a more direct approach is highly profitable with many disabled readers. In phonics prognosis testing, the examiner determines whether the child can profit from a straight phonics approach and, if he is having difficulty in phonics learning, whether his problems are in discriminating sounds, associating sounds to symbols, or in blending sounds to form words.

While there are a variety of phonics methods, including variations that employ different orthographies, color coding of consistent sound-symbol relationships, or diacritical marking systems, all of these methods are based on adequate discrimination of isolated speech sounds and a direct teaching that a symbol has or "says" a certain sound. The above variations and differences in the order of presentation of sounds could be tested in phonics prognosis tests but probably are of little importance in determining whether phonics teaching is currently profitable for a child.

Within the basic phonic approach, there are also variations in the manner in which sounds are blended to form words. Some methods use a letter-by-letter blending (c-a-t), others utilize base blending (c-at), and some teach consonant-vowel combinations that are blended to final sounds (ca-t). These differences in blending sounds are likely of more consequence in prognosis testing than the previously mentioned variations. However, the

consonant-vowel combination method requires the teaching of many more separate sounds (i.e. all of the possible combinations of each consonant with all of the vowel sounds) and is not used in the prognosis testing that is described below.

Auditory discrimination ability can be measured in several ways but need be sampled only for the sounds being taught in the phonics prognosis testing. One measure of this ability is based on the child repeating words that contain the sounds to be taught. In this testing, the child is faced away from the examiner and instructed to repeat some words. If the child can accurately reproduce these words, it can be assumed that he has adequate discrimination for the sounds to be taught. This procedure would not be adequate for a child who has noticeable speech problems, and a different testing situation would probably be necessary.

The following words could be used to test auditory discrimination in a test where the sound-symbol relationships to be used are "ch," "t," "p," and short "a" and "i:" children, chicken, pet, pull, toy, too, mad, mitt, sad, and sit. If the child has no difficulty in pronouncing these words, it can be assumed that he has adequate discrimination for these five sounds and the testing can be advanced to the association level.

One useful procedure in teaching sounds is to follow a visualization procedure with these steps:

> With the letters ch written on a piece of paper the examiner says: "These letters spell the 'ch' sound. Say, 'ch.' Look carefully at the letters and say 'ch.' Now close your eyes and think what the letters for 'ch' are like. Look at the letters again. Say 'ch.' What do these letters say?"

If the child can say "ch" as the examiner points to the symbol, the child is taught the next sound. After the teaching of each new sound, the examiner has the child produce the sounds for previously learned symbols. If the child becomes confused during this teaching-learning, or at the end of the session cannot give all five sounds as the examiner points to different symbols, the testing can be stopped. The child should be able to learn these sounds easily after a brief teaching situation or a phonics approach will not be an easy beginning instructional system.

Children who do well on the two first parts of the phonics prognosis test need to be taken to a blending step. In this teaching-learning situation, the examiner demonstrates blending of sounds on the first item and has the child also blend the word. Further help is also given on the second item if it is needed, but then the child is expected to blend out himself the next five items. If the child can learn by a basic phonics approach, he will blend at least four of these five items correctly.

A. t i p

B. ch a t

1. p a t

2. t a p

3. ch i p

4. p i t

5. ch a p

When a child has difficulty with letter-by-letter blending, the examiner can take the child back to the association level and teach four word bases while reviewing the previously taught consonant sounds. This will permit a testing to determine whether the child can blend sounds on word

bases. After the child easily learns the "ip," "it," "at," and "ap" bases, the word blending test utilizes these items:

1.	ch	ip	5.	p	at
2.	t	ip	6.	t	ap
3.	p	it	7.	ch	ap
4.	ch	at			

If the child successfully blends six of the seven items, a bases blending phonics approach can be deemed to be useful. Difficulty at any of the three levels of phonics learning indicates that phonics will not be a useful beginning approach for a child and also points out necessary remedial activities in discrimination, association, or blending skills.

Summary

This paper has pointed out some weaknesses in diagnostic testing strategies that are not based on reading related behaviors. Three sight prognosis tests and a phonics prognosis test were outlined which hopefully will provide more appropriate and useful diagnostic information for the severely disabled reader.

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