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Lexic-Dyslexic Diagnostic Instruction.

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Dyslexia is too often a general category for an assortment of reading disabilities. Reading ability might be considered as a continuum ranging from lexia to dyslexia with no implication regarding the cause of the disability. Instead of labeling the child with a reading problem a failure, present teaching techniques should be evaluated on the basis of their effectiveness in individual situations. The initial stages of learning to read comprise a highly complex perceptual learning function that varies from child to child, and current reading tests frequently do not measure these differences. Until better tests are developed, it is the teacher's responsibility to diagnose individual differences in learning styles. A suggested model for classroom diagnosis provides all students with a rich language experience program that allows early identification of quick perceptual learners. The slower learners could then be given special attention through the use of various individualized approaches to the teaching of reading. (BS)

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### LEXIC-DYSLEXIC DIAGNOSTIC INSTRUCTION

Dyslexia has become something of a pedagogical grab bag into which we have dumped an assortment of reading disabilities. These disabilities vary both in terms of probable etiology and in the way they manifest themselves behaviorally. Being thus saddled with the term dyslexia, however, many specialists proceed to regard this designation as if it related to a uniform syndrome of symptoms stemming from a common cause. We therefore find ourselves struggling with a semantic hangup that might get in the way of a clearer understanding of reading disabilities: diversified causes, diversified manifestations, and diversified teaching strategies.

In certain quarters, efforts have been made to limit the use of the term dyslexia to those reading disabilities that stem from neurological dysfunction, either of a congenital nature or resulting from post-natal neurological damage. Rather detailed attempts have been made to identify

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dyslexic patterns from test performances, from case history data related to febrile diseases, anoxia, or leison, or from neurological examination results. However, these attempts have not proven to be successful. First of all, disabled readers have been found to show "typically dyslexic" test patterns without any evidence of neurological impairment or a history of disease or injury that might have resulted in such impairment. In addition, these same patterns are sometimes manifested by disabled readers with emotional problems as the apparent major etiological factor. Further, so-called dyslexic patterns have shown up in cases of reading disabilities stemming from experiential, language, or cognitive deprivation.

It would seem, therefore, that hypotheses that attempt to squeeze clinical-behavioral data into a neurogenic theory of dyslexia are untenable. An alternative might simply to define dyslexia broadly as "a disturbance of the ability to read" in accordance with Webster. This would then free us to pursue specific relevant deficiencies and to prescribe appropriate corrective measures.

This writer has seen (and even written himself!) dozens of elaborate reports of cases with apparently diversified etiologies but with essentially the same corrective techniques prescribed. This would suggest that in many instances the original cause of a reading problem tends to diminish in importance and that attention should more appropriately be directed toward currently existing factors relevant to amelioration.

The Lexic-Dyslexic Continuum

It might be helpful and considerably less confining to think of reading ability as existing on a continuum ranging from lexia (i.e., adequate reading ability) to dyslexia (i.e., reading disability). Such a continuum should not carry with it any implication regarding the cause of the disability. This point of view would be tenable since, like most behavioral disorders, reading disability usually results from a variety of causative factors in the learner's earlier experiences. Since these experiences can not be erased, they tend to lose a considerable amount of their relevance in regard to corrective procedures.

At the lexic end of this proposed continuum, a rule-of-thumb criterion of adequacy might be that the reader is able with minimum effort to meet the demands made on him by academic requirements or by the requirements of everyday life. However, this minimal adequacy must not be construed to suggest total competence. It is impossible to assess with accuracy the upper limits of a person's ability to perform in any aspect of the complicated task of reading. Too frequently a reader is compared with a large sampling of his peers and if this comparison is favorable little, if anything, is done to improve performance. This normative view is untenable, since it tempts us to settle for mediocrity. As a case in point, the average adult reader reads at approximately 250 words per minute. However, this simply represents the norm that could mask the fact that the vast majority of adults could easily double or triple this rate. Hence, the point of view held here, then, is that reading improvement must be seen as a never ending process.

At the dyslexic end of the continuum, lack of reading competence may range from severe retardation to total inability to read. As was mentioned previously, the so-called typically dyslexic test profile may result from a variety of causes that may not determine appropriate corrective procedures. However, a substantial number of reading clinicians and teachers tend to think of the dyslexic as one who has a severe perceptual learning problem and characteristically does not respond to teaching techniques by which the majority of children learn. But what do we really know about dyslexia?

#### The Dyslexia Grab Bag

It is often a blow to our pedagogical egos to have to admit that our best teaching methods do not work with certain children. Our all-too-human tendency, therefore, is to place the onus on the learner. We frequently label children with various academic problems as "slow learners", implying that some constitutional deficiency inheres in the learner. Similarly, we slap the label "dyslexia" on the foreheads of students who do not respond to our teaching techniques. By these means we are absolved of responsibility for failure. We don't fail; the children do!

This buck-passing reaction to learning disabilities begs the question. A far more sensible approach would be to bring to bear all of our innovative expertise in the exploration of new, unconventional teaching procedures to which atypical learners can respond with success. This would put the pedagogical monkey back on our own backs. And that's where he belongs.

### Individual Differences in Learning Style

We have traditionally gotten caught in the bind of absolutism in our quest for the method for teaching reading. The shelves in an apothecary are lined with a myriad of diversified drugs as evidence of the fact that different medical problems require different kinds of treatment. Why, then, do we continue our search for the singular panacea like the broad-spectrum antibiotic that attacks a dozen bacteria simultaneously?

The concept of individual differences within the discipline of psychology is now classic. But the application of this concept to learning problems is slow. True, we do pay feeble homage to the notion of individual differences by subjecting our students to standardized tests of reading. We get a total score that even masks individual differences within a given child. Then we divide our class into the traditional three groups in accordance with these test scores. But how are we providing for individual differences in learning style?

The position held here is this: The initial stages of learning to read comprise a highly complex perceptual learning function. The characteristics of word forms that make them distinguishable from each other are very subtle to the uninitiated beginning reader. He must bring to bear his own unique combination of perceptual learning skills in order to discriminate accurately among these highly similar word forms with which we often bombard him at a viciously rapid rate. And learners differ in regard to/perceive printed word forms, but  
the way they

we haven't learned enough about these differences in perceptual learning style. Present-day reading tests do not yield this information.

Those students learn readily and quickly whose learning style happens to be compatible with the teaching method and materials to which they are exposed. But what of the others? As they struggle frantically to devise a word-learning technique, their cumulative failure compounds itself and panic results. Ultimately (if they are smart!) they withdraw from the "learning" situation and become behavior problems or even psychological dropouts against the time when they can drop out physically from school. While in school we label them as "behavior problems" or "personality problems" or "slow learners" or "just plain dumb". When they leave school we gleefully stigmatize them as "dropouts" and dismiss their problems from our minds, glad to be rid of challenges that we could not meet.

The preponderance of students with perceptual learning styles that are incompatible with our standard methods of teaching are boys. This would suggest a sex-linked gene that might account, in part at least, for individual differences in perceptual learning style. This might relate also to the phenomenon of color blindness with its disproportionately higher incidence within the male population. We might hypothesize from these observations of sensori-perceptual sex differences the real possibility of more and varied constitutional differences in perceptual style with an eye ultimately toward matching instructional procedures and materials with various types of methods of learning.

Needed: Diagnostic Tests of Perceptual Learning Styles

If the ideas posited in the earlier sections here are tenable, then it would follow that we need to busy ourselves with the task of sampling behavior that would be predictive of various types of learning styles. This would involve the development of a variety of perceptual learning tasks that might parallel - in part at least - many of the diversified approaches that have already been devised to teach reading. Additional ones will also have to be created. The purpose of such a measuring instrument would be to determine the most appropriate learning system for each of a variety of types of learners.

The development of this kind of a test battery will require time and ingenuity. The administration of the battery might also be rather time consuming, since a variety of types of perceptual behavior will have to be tapped. However, the results yielded would be more than worth the time and effort expended if they reduce academic failure to an absolute minimum, prevent the trauma of cumulative failure, reduce the expense of elaborate remedial programs and personnel, and ultimately create a more literate and productive citizenry.

Diagnostic Instruction

We frequently pay glib lip service to the notion that all teaching situations should be simultaneously diagnostic. This implies, however, certain diagnostic sophistication and expertise on the part of the teacher. But the question remains: To what extent are our teachers prepared as trained observers of learning behavior so that they can practice effective diagnosis en route in the classroom?



Obviously we need both pre- and in-service training programs that will extend the competence of average classroom teachers to include diagnostic observation. They must first understand in depth the nature of the communicative processes and the interrelations that exist among the various dimensions of language and experience. They must understand also the problems that children face because of the many inconsistencies of English orthography. Further, they need to understand the nature of visual perception of printed word forms and the various factors that affect it. In addition, they must become very familiar with the increasingly diversified approaches that are being developed for the teaching of reading and the other language arts. Finally - and most important - they must be able to shift from one system of teaching reading to another as soon as the failure of one is apparent.

This type of diagnostic instruction should begin at least in the early part of the first grade and, in some instances, possibly even at the kindergarten level. Below is a proposed model indicating the sequence and general content of this approach to diagnostic instruction.

1. Rich language-experience program: The purpose of this first phase would be to insure a fairly common and richly expanded background of language and experience that would be capitalized on during subsequent phases. This phase would include the following: the recapitulation and sharing of earlier experiences that children bring with them to school; the meaningful provision of new, first-hand sensory

experiences (e.g., field trips, classroom projects, etc.); meaningful provision of new vicarious experiences (e.g., educational TV, interesting speakers, films, materials read to them, etc.).

Within this rich language-experience program, careful attention should be given to the following: provision for the emergence of new, interrelated concepts from the first-hand and vicarious experiences; careful attention to language expansion commensurate with the new concepts that emerge; refinement of children's auditory perception and discrimination of speech sounds and the oral reproduction of these sounds; refinement also of their oral syntax so that somewhat more complex and precise language patterns develop. Extensive classroom dialogue will be a crucial undergirding factor in the language-experience program, since it will permit the teacher to function as a language model, expanding vocabulary and general language usage. It will also create a situation in which children can practice language so that it will reach a habit level.

Cognitive stimulation will be a second crucial dimension of the language-experience program phase. This will involve the skillful use of questions woven into the classroom dialogue for the purpose of directing children's attention to various aspects of new experiences and stimulating them to think critically, understand processes, see interrelationships among new experiences and among the new concepts that emerge from these experiences.

2. Early identification of quick perceptual learners: As was mentioned previously, certain children have the kind of perceptual learning ability that permits them to perceive and differentiate quickly as they encounter new word forms. Further, they retain clear and accurate images of these forms for easy recognition in reading and correct reproduction in spelling situations. These are the youngsters who are least likely to develop reading problems and who could probably learn from practically any method.

As phase 1 above progresses, the teacher should record on the chalkboard or on newsprint experience charts or on signs about the room many words and sentences related to the experiences that the children are accumulating. They should not be forced to read these. However, they might be asked informally and casually from time to time to read this or that sentence or individual word. This will be essentially for diagnostic purposes. If there is adequately repeated visual contact with these word forms - together with their meanings and sounds - many children will learn them. Those who are highly successful in this kind of a perceptual learning activity could probably benefit from a richly expanded language-experience approach to beginning reading, amass a sight vocabulary, and move quickly and effortlessly into a word-analysis program based primarily on the words in their sight vocabulary.

3. Beginning differentiation of reading instruction: When the most adept group of perceptual learners has been identified, the next step will be to provide a different type of approach to teaching reading to those students with different styles of perceptual

learning. It is hypothesized here that a second group who can not learn to perceive whole word forms easily and quickly need a program that directs their attention much more carefully to the details of word forms. This is necessary in order that they come to note various distinguishing tendencies of printed symbols.

This second group will probably need much greater emphasis in their program on letter recognition. In addition, careful attention will need to be given to consistent phoneme-grapheme relationships, with some delay in the presentation of the irregular sound-symbol relationships of our English orthography. Interest and meaning must undergird this instruction, since consistent dissection of word forms can easily disintegrate into the futility of dull drill. Also, this group of learners might be even more successful if their perceptual learning is reinforced by the motor act of writing words as they learn them.

Certain students will even have difficulty with this approach involving more careful initial attention to the details of word forms. Their perceptual learning might need to be buffered by the inclusion in their program of additional sensory gateways to learning. There are a number of programs on the market today that emphasize a visual-auditory-kinesthetic-tactile attack on the perceptual learning task.

The model described above allows for a gradual progression from the development of a rich language-experience approach to the identification of learners who fall at various points along the lexic-dyslexic continuum. But it is important that the teacher's perception be sharpened as she notes signs of success or lack of success and makes appropriate

shifts from one approach to another, remaining aware of the fact that perceptual abilities do exist along an infinitely graduated continuum and therefore are not categorically separable.

### Concluding Comment

Our essential plea here has been that we rid ourselves of the somewhat binding and ill-defined semantic hangup related to the term dyslexia, with its diverse causes and manifestations. Attention needs to be centered, rather, on learning styles or diversified manifestations of perceptual learning behavior. The vast majority of reading tests currently in use do not do this job for us and it is therefore incumbent upon specialists to develop new types of testing programs that will permit us to match learning systems to learning styles.

A model was offered above that might provide a practical application of the concept of classroom diagnosis en route and permit the teacher who is a trained observer to adapt teaching techniques to individual differences in learning styles.

Hopefully, as instruction in reading and the other language arts continues to undergo a revolution, we will be able to retain the degree of flexibility in our approaches that will preclude cultism and stimulate adaptability and innovation. But this will only happen when we remove the onus of failure from learners and begin with even greater vigor to re-examine our learning systems.