

BLUEPRINTS FOR BETTER READING

An Inquiry into the Nature of the Reading Process

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INTRODUCTION

There can be no doubt in everybody's mind that the skill and art of reading, or decoding written language, is the key to our cultural treasures. The question today is no longer one of literacy versus illiteracy, but the degree of literacy. Educators have become aware of the fact that among their pupils generally considered "normal" there seems to exist a relatively large number of so-called readers who nevertheless do not read on expected grade level. While there can be many reasons why a child does not read up to par, it is now believed that we can speak of *specific* reading problems. Enlightening research evidence to this effect is gradually coming in.

The premise of this inquiry into the reading process follows a tradition in the history of science, namely that we take the liberty to make inferences of normality from states of pathology, thereby assuming a continuum rather than a dichotomy or other partition of the dimension under investigation. It is fully realized that such premise can be misleading at times because we may not deal with a clear-cut continuum where normality is at one pole, and pathology at the other. For instance, certain diagnostic categories may be found peculiar only to a certain band on the continuum which then would represent an agglutination of patches without continuity. However, this scientific approach has in the past led to discoveries in science otherwise unattainable if the subject under study had been attacked centrally from the normality angle first, without regard to polar extremes and deviations from expected norms. For example, to quote incidents in psychological fields of inquiry where the abnormality-to-normality route was used, Kretschmer in Germany first studied schizophrenic patients and then extended his observations to the borderline cases whom he called schizoid, and finally to normals whom he termed schizothymic. Eysenck in England speaks of a normal-neurotic-psychotic continuum even though some researchers maintain that these are separate classifications in kind which exist side-by-side but do not represent a continuum.

The approach of studying abnormality and deviations is a worthwhile point of departure that should not be confined to medicine and psychology alone. While few have made attempts in this direction

in the field of education, it appears that severe reading disabilities and dysfunctions may lend themselves to the same approach, thereby gaining deeper insight into the nature and normality of the general reading process. Methodologically, most students in our schools in the United States are being taught by various basic methods of reading instructions, but the question has been continually raised how well they learn and to what extent do they reach their potential? Phonetic fanatics (Fonetic Phanatics?) put all their emphasis on teaching the sounds of English, while others stress the word recognition or wholistic approach. Still others, either realizing the shortcomings of the two methods or not knowing whom to please, have chosen the eclectic road.

The fact that some investigators of the learning process place the percentage of occurrence of specific dyslexia, i.e., the partial or total inability to read, as high as 10-15% and even higher does not speak well for conventional methods of teaching reading. The figure would be even higher if one would include the "underachievers," those who read on grade level but perhaps due to above average intelligence should be reading better by expectancy. Other cases that are overlooked are the mentally retarded who are expected to read below average but who may read even lower than this due to a camouflaging specific dyslexic condition.

Another scientific practice is stating theoretical views as postulates from which procedural operations can be derived and spelled out in more detail. This important step, the transition from theory to practice, is often overlooked by the scientist who is satisfied with having formulated the theoretical framework, but is not immediately interested in specifying the practical implications for the grass-roots educator in the classroom. Perhaps this lack of bridging the gap between theory and practice is the cause of delayed arrival of novel ideals in our classrooms. It is hoped that the present inquiry into the reading process will stimulate the teaching of reading in the classroom and, hopefully, will generate further research towards better and more effective reading instructions.

Some Basic Postulates of the Reading Process

1. THE TOTAL READING PROCESS MUST BE INTERNALIZED BY THE READER.

Reading, like speech, may be viewed as an internalized process. We are born with the possession of certain brain functions, but we have to seek information from the external world around us to either absorb or translate this world into the brain where it can be stored for ready recall. Perhaps this absorption process is too close to us to be appreciated, but if we imagine for a moment how a foreigner

assimilates English gradually we might get a clearer picture. His facility to handle the English language depends, of course, on a certain efficiency of his brain mechanism, but he must also be given the opportunity to listen to and see English around him. Indeed, a more recent theory of foreign language acquisition (Lambert, 1959) deals with just this acquisition process showing that the degree of penetration and internalization depends largely on the success of speaking and possibly also reading and writing the foreign language. The extent of internalization measures the degree of success, i.e. fluency and ease of language facility. Perhaps this helps to explain the accents among foreigners, even after living in this country for many years. Cultural and emotional involvement cannot be overlooked in the reading process either.

Regarding reading, then, a child must INTERNALIZE the reading process, make it part of his own body and soul, in terms of physiological as well as psychological internalization. One must "plunge" into the reading process, as it were, which may well be regarded as a motivational factor, but this explains motivation only from one side, namely drive from within. The reading process is actually a two-way process by which the individual meets the written world head-on. The organism is not only equipped with the necessary apparatus to acquire reading—except for rare abnormal conditions—but it also is pushed from the outside by the force generated from reading material proper. Complete rejection of such forces would mean reading failure, and only complete internalization will mean successful acquisition of reading. The more one "feels" for a language and reading or has *Sprachgefühl* as the Germans call it, the more one is able to express oneself and manipulate linguistic material. This ongoing process of linguistic internalization may be arrested at any moment due to a loss of existing interest, or the cessation of outside challenges. In the end, the process must reach "functional autonomy," i.e., internalization to the extent where it functions almost subconsciously and independently. Reading has become a habit or second nature. The reader is freed from the chains of a skill and has raised himself to an artistic level where he can devote his efforts to meaning, appreciation and expression.

The two-way acquisition process via internalization depends on the two phenomena involved, i.e., organic mechanisms and cognitive functions on the one hand, and the external world on the other. Speaking of the receiving end, the internalization process consists of two parallel sub-processes, as follows:

- (a) a BEHAVIORAL internalization, possibly of a neurologically based nature, but seen here primarily as a perceptual function observable on the behavioral manifestation level; and

- (b) an ATTITUDINAL internalization process which is related to personality and probably forms part of an individual's ego function. Related to this process may be a linguistic attitude which makes up the "Sprachgefühl."

Attitude involves linguistic curiosity and sensitivity, prerequisites for any language activity, while perception provides for the behaviorally anchored skills. If either one of these internalization functions is inadequate, reading efficiency is reduced, and a deficiency in one will make the other function decline commensurate with its severity.

Internalization is thus seen as a dynamic process which represents the mechanism of bridging OBJECT (reading material) with the SUBJECT (the reader). The object attracts the reader by intrinsic value which is task generated. The child wants to learn, is compelled to read. The task moves (the literal meaning of "motivation") from the environment into the reader's organismic and behavioral make-up. When the Greeks baked cookies for their youngsters in shape of the alphabet and then allowed them to eat the cookies they apparently knew what they were doing!

2. READING REQUIRES AN INTEGRATIVE COMPETENCE OF A SYNTHETIC NATURE.

Reading requires an integrative competence in order that the reader may be able to combine single letter units into whole configurations. The integrative competence is suspected by many researchers to be neurological in nature. For example, Penfield (1959) assigns the locus of integration to the brain-stem. This competence, when absent or weakly developed, plays an even more important part in specific reading disabilities and may result in defective intersensory integration. De Hirsch (1966) points out that when the poor readers in her research sample were asked to select from a number of words one that had been exposed earlier, the children responded as if the printed configurations were simply a jumble of meaningless designs, all looking more or less alike and lacking in distinct physiognomic feature (p. 49). She also noticed that her failing readers' perceptual-motor and linguistic responses were strikingly unstable (p. 52). As do chronologically younger children, they functioned on a primitive and undifferentiated level, as evidenced by fragmented figure drawings, poorly synthesized Bender designs, and inability to organize parts of a story into a meaningful whole. All these deficiencies point to a relatively low level of integrative competence, or lack of maturation of such competence even though the children were chronologically of an age where such competencies are normally developed. There was also continuing difficulty with *maintaining* a linguistic Gestalt even in older children, i.e., words looked different at different

times and in different contexts. In a summary on reading disabilities related to psychological correlates, Kass (p. 95) points out that research in methods of reading training should look into the INTEGRATIONAL PROCESSES rather than the representational ones.

The awareness of a physiognomic feature of words, mentioned by several investigators, points to the principle of Gestalt inherent in the perceptual process of reading. Gestalt principles are well-known by now but are less often put into practice. The reading of new words follows Gestalt principles, even in younger children who have just begun to discern words without actually "reading" them. Piaget (1951) has shown us that the quality of thinking and perception has certain characteristics in early childhood which can be concrete, but nevertheless specific. This first encounter with the written word proceeds at first in momentary, split-second fashion, and after this quick encounter of the whole Gestalt, the individual must analyze the word's constituent parts, which means starting from the smallest unit known to him. From this basis he begins to return to the configuration first encountered until full comprehension of the word is obtained. This final comprehension, again coming in flash-like speed if and when it occurs, is known as the "aha" effect or quick insight recognition. The reading process is therefore primarily synthetic after the first brief wholistic encounter. When the same word is encountered again, this process may repeat itself but in a much speedier way. After the individual has internalized the word, reading becomes automatic and extends from words to whole sentences. In practice the reader encounters a task he cannot master, but he is confronted with it and wishes to master it. Words have no meaning to him at first other than being blurps in front of him, something he is supposed to tackle. Not recognizing the word and not being able to decipher it, he begins to go into detail and begins to build from the known single letters in the word, i.e., he synthesizes. The word MAN is at first seen as M-A-N. The integrative process now sets in and combines—as if with a linguistic glue—the separate phonemes and morphemes to become a unified whole. When synthesis is complete, the whole word emerges and is associated with meaning when the ideational repertoire of the reader is tapped and the word exists in it. Later, ideas expressed in sentences take the place of single words.

3. READING IS A MULTI-VARIATE PROCESS WITH COMPENSATORY MECHANISMS.

The reading process does not represent a unitary function, but appears to involve a cluster of competencies, primarily perceptual in nature especially in the earlier stages of human development. This

has been pointed out by various investigators. For instance, as early as 1935, Castner (1935) spoke of a cluster of traits which characterize the kindergarten performance of children who tend to run into trouble with reading. Reversed to normality, there must be clusters of competencies correlated to the trouble areas. And again, focusing on the dysfunction of reading in order to understand the normal function and process, Hermann (1959) emphasizes that the diagnosis of a reading disability does not depend on a single pathognomic sign, but on an appraisal of the whole configuration of dysfunctions.

This cluster of competencies may not give equal status to each individual involved in reading. However, a compensatory mechanism can "normalize" reading and, at least on the surface, may make reading appear adequate. Deficits in various areas of competence are cumulative and contribute to the severity of a reading problem if one exists. One of the stronger compensatory mechanisms is mental ability where the individual can often offset a reading deficit by very high intellectual ability; thus a gifted child with a reading dysfunction may still be reading on grade level and not draw the educator's attention and be labeled a poor reader, even though his expectancy level would be commensurate with the high intelligence.

De Hirsch (p. 52) in her study of young children, observes that it was not a *single* task on which her poor readers showed failure and distinguished them from other subjects, but rather the *accumulation* of deficits. Isolated failures were also observed in superior achievers, but apparently do not weigh so heavily as to interfere seriously with effective reading.

Thus reading is seen as a multi-sensory process, not merely visual, phonetic, or phono-visual. Full internalization requires all sensory avenues to be used for penetration to the core of the organism. This intake may vary according to the cognitive-perceptual style of the reader or the adequate functioning of the sensorial modalities. In any one of the senses is defective or shows a dysfunction, such as poor left-right discrimination, they may be circumnavigated, strengthened, or re-trained. Shaping a "z" by bending a pipecleaner is as helpful as seeing the letter "z" in the early reading process. High intelligence likewise may be considered a compensatory mechanism if a reading dysfunction (dyslexia) exists.

4. MEANING IS SECONDARY TO SYNTHESIS IN THE READING PROCESS AND IS THE CULMINATION OF SYNTHESIS.

Chomsky (1962) has stressed the fact in his transformational grammar, a new approach to the age-old morphological analysis of language, that syntax, i.e. word order, can exist without reference to meaning, in fact should not be dependent upon it. In the reading

process, the same principle applies, namely that reading of new words must proceed without reference to the meaning of the word. In fact, so-called secondary clues, e.g. pictorial aids or the actual naming of words by an outsider before a child begins his synthetic process of reading, inhibit the reading process in the end, even though it may *apparently* facilitate it. Quick reading of words with the aid of these outside, actually irrelevant clues could become superficial and distracts from the basic process. In these instances, the final reward, i.e., meaning, comes *before* the reader has mastered the word. Reading is probably more closely related to syntax than meaning. Both synthesis and syntax are *structural* processes, while meaning and word power are part of the symbolic and cognitive functions.

5. THE SUCCESSFUL ACQUISITION AND APPROPRIATE LEVEL OF READING IS DEPENDENT UPON MATURATIONAL AND DEVELOPMENTAL STATES AND PROCESSES.

Effective reading, whether initial acquisition or later proficiency, follows maturational and developmental phases of the organism. Piaget sees these developmental stages in a hierarchical model from which the properties are abstracted, e.g. personal, social and affective development, all influencing and being influenced by the cognitive development. But no stage can be skipped; each stage is more complex than the preceding one, and each stage prepares for the succeeding one.

The following areas of human development seem to be centrally involved in the reading process, all necessary for normal reading, but all being interdependent upon one another.

MOTOR DEVELOPMENT	Includes crawling, walking, use of vocal cords, gross and fine motor controls.
LINGUISTIC DEVELOPMENT	Includes maturation of speech sounds, fluency of speech, vocabulary.
SENSORY-PERCEPTUAL-NEUROLOGICAL DEVELOPMENT	Includes acuity of all sense organs, perceptual discrimination, left-right discrimination, establishing laterality.
COGNITIVE DEVELOPMENT	Includes ability to abstract and compare, general intelligence and cognitive style.
EMOTIONAL-SOCIAL DEVELOPMENT	Includes ego development, establishment of identity and self-image at a given stage, emotional stability, social competence.

Full development and maturation of all areas forms the basis for integration in the reading process. Lags of maturation in *one or several* areas will cause retarded reading, by degrees. Deficits in *several* areas point to dyslexia.

Success and failure in early attempts of teaching young children

to read have their answer in this postulate. An immature organism is not as yet able to activate all phases of the reading process, thus is unable to read normally. Maturational lags, to whatever degree, will be reflected in the faltering attempts of acquiring reading skills. These maturational stages include, for example, left-right discrimination (which develops relatively late in children), orientation in space and time, visual-auditory discrimination, speech development or emotional immaturity. As an example, it might be pointed out that certain "authorities" (Doman, 1963) recommend starting the reading process with a two-year-old infant and assert that this can be done by using large word cards relating to the child's immediate body and self-orientation. However, such child—unless high above average intellectually and maturationally—will learn to identify and vocalize these words, but will have great difficulty recognizing the same words in a different context, and will also have little facility in attacking new words. This is so because certain phases of development and maturations have not been reached, rendering the organism physically unable to perform the total task. Certain children can copy words long before they can "read."

6. READING REQUIRES INTRINSIC MOTIVATION AND VARIED REINFORCEMENT AT AN EARLY STAGE.

In the reading process, it is the task (reading) that must generate a motivational effort on the student's part. This intrinsic motivation is considered primary. Any secondary reinforcement would inhibit reading and may develop faulty reading habits. Such secondary reinforcements, pretty much like the click in the lever of the Skinner box when the rat presses it to obtain food, is actually irrelevant. The click tips off the animal and helps it in recognizing the food goal but reinforces a habit that is not intrinsically in the food-getting task. Similarly, a child who uses pictorial clues in reading, or memorizes words read to him by others, will develop faulty reading habits, unless these extraneous stimuli are immediately removed and the child continues to read the words with accuracy. He did not get the motivation from the word itself and will later look for extraneous clues when they might be unavailable. Poor reading is the result.

Reinforcement must take on varied forms to be effective. This can be accomplished by presenting the stimulus (word) in varied situations, i.e. different contexts, different printed forms, at different times and in various sizes. In De Hirsch's study, some of the young children had continuing difficulties in maintaining a linguistic Gestalt, i.e. words looked different at different times and in different contexts. Their recall of printed configurations remained unstable. Precisely this recall in different situations is what seems to be an important

variable in early reading. The reinforced recall extends not only over situations but also *time*. The young infant may be conditioned by reflex to recognize a word, say refrigerator, but he cannot recognize it in different contexts. Apparently we are dealing here with an important aspect of the reading process which the young child has not yet learned to master. However, one must not wait and hope for this skill until it may or may not occur, but its anticipation must be carefully planned throughout the various stages of maturation. Stimuli must be presented in a consistent form at first, and these must be followed by the same stimulus words in different situation, as reinforcement, *but* in variation on a theme, i.e. **VARIED REINFORCEMENT**. This approach, in turn, will aid in the integration of the reading material, may these be letter combinations or words. Variation of stimuli by way of reinforcement must come very early. This approach would meet the requirements of the "Law of Constancy" where a child will eventually recognize any object (including words) from whatever angle and in whatever situational context.

7. EFFICIENCY IN READING ALSO DEPENDS ON THE NATURE AND COMPLEXITY OF THE WRITTEN LANGUAGE SYSTEM.

Several methods of teaching reading now base their basic technique on altering the actual written language system (symbols) to facilitate reading acquisition. This would mean that by phoneticizing the English language, which is relatively unphonetic when compared with other languages, the reader would have an easier task at hand. If this were so, and some initial successes of these methods seem to point in the positive direction, then successful reading would depend on the symbolic language system proper. In a recent study, Makita (1968) states that dyslexias occur less than one per cent in Japan and feels that this must be due to their written symbolic system rather than such factors as neurological dysfunctions or emotional disorders which appear with equal frequency in both the United States and Japan. It is not as yet fully determined in how far traditional reading method can overcome this handicap to the reader, if it actually is one. The methods taking the partially phonetic makeup of the English language into consideration have increased in number over the past decade (e.g. i.t.a.; Laubach).

8. THE GOAL OF THE READING PROCESS IS FUNCTIONAL AUTONOMY.

Regardless of the type or method to acquire reading, and regardless of subsequent use of reading skills, the final achievement is seen in the reader's unawareness of the reading process, i.e. the reading process must be fully internalized, quasi-subconscious and func-

tionally autonomous. This goal does not imply that a certain level of reading will finally be attained that can no longer be improved upon, but that the reader is comfortable, motivated and able to ascertain and retain meaning through reading. Reading has now a secondary place in the primary process of learning or information acquisition.

Besides the basic psychological and structural principles involved in the reading process, some of the fundamental dimensions of linguistics have been overlooked in our methods of teaching reading. Isolated attempts have been made in the past to build reading methods on sound linguistic principles, but they have remained isolated rather than becoming incorporated in an integrated approach. Few teachers know that there exists a science that deals with language proper, namely formal linguistics. Yet linguistic phenomena permeate our entire life including language proper, the very tool of communication.

Basic principles of linguistics must now also be incorporated into methods of teaching reading. Phonology is by far the most commonly applied branch of linguistics in our classrooms, with morphology perhaps taking a second place (e.g., grammar). Other facets of linguistics are usually overlooked. How many teachers know or practice the explanation of word roots, the fascinating field of etymology? And how many would explain oddly irregular verbs on a structural change basis? (The Grimm Brothers termed irregular verbs "strong" because they are so strong that they can change within their own word confines, i.e. they have vowel changes, rather than "weakly" being supported at the end of the word by the suffix "ed"). The changes in "ring, rang, rung" or "sing, sang, sung" suggest present, immediate past, and distant past by the very choice of vowels commensurate with their appropriate tonality and local of production in the speaker's oral cavity.

The suggested phase sequence outlined below is intended to show, in blueprint form only, a way to teach reading by a creative-linguistic approach, incorporating the vast knowledge we have gathered about the reading process over the past decades.

SUGGESTIONS FOR A CREATIVE-LINGUISTIC APPROACH TO TEACHING READING BASED ON EIGHT BASIC POSTULATES AND LINGUISTIC PRINCIPLES

The following approach to teaching reading, suggested by the preceding postulates, has its theoretical basis in modern linguistic principles and the insights recently gained from teaching dyslexic children. It is a multi-faceted approach insofar as it can be used in the regular classroom, but can also be considered a PREVENTIVE METHOD of teaching by inoculating the child with certain precautionary features of reading that might prevent a more specific learning disorder later in his school career. Thus the method incorporates all those remedial features of pathological factors of the reading process fre-

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quently found in dyslexic children, but weaves them into the method for teaching NORMAL children.

The methodological approach should be started in Kindergarten (age 5) and terminated by Grade 2. However, depending on a child's mental ability it can be started earlier, or may have to be carried beyond the second grade if needed. NO ILLUSTRATIONS or drawings must be given as pictorial clues at any stage of the method, except after Phase VII. The pictures or drawings then become a reward (reinforcement) rather than secondary clues in the initial reading analysis resulting in guessing.

Phase Sequence

Execution and Examples

I

FIRST ENCOUNTER

A small and simple word from the child's environment is selected and displayed on the board (cat; hat; bat). The *whole* word is written on the board in lower case letters, *both in print and cursive*. Nobody in the class is allowed to say the word out loud; it is the SECRET word.

The word is discussed, guessed, admired, rewritten by the students on 3 x 5 cards. Left-right sequence is stressed. Emphasis is on the *entire word form*, not single letters. Configuration boxes are drawn first, then a word is written into it. Children are allowed to use blackboard and individual cards. Teacher selects words after children suggest them and introduces sounds according to a phonetic list of progressive difficulty. All sounds must be introduced in an initial, medial and final position.

II.

MORPHOLOGICAL AND PHONETIC SYNTHESIS

After single letters are explained to the children (alphabetical analysis), the synthesis or reconstitution of the entire word is begun. Still nobody is allowed to say the entire word out loud. Letters may be copied, then pronounced. The teacher gives the pronunciation of single letters (P = puh) and their names (P = pec). The letters are then combined phonetically, if possible in small phonograms (cook - ing; b -at; cl - ock). Values are underlined in color, their values to be explained in Phase III. Morphological synthesis is the putting together of the letters (sound or print). Advanced students discuss affixes, prefixes and suffixes.

III.

PHYSIOLOGICAL BASES

Each sound is explained on a physiological basis, i.e., how it is made in the oral activity. Picture of a sagittal section of the mouth, or a

bite model, should be used. Sources and quality of sound is given accord to physiological location in the oral cavity. Obstructions in consonantal sounds and blends are explained and demonstrated. Tape recorder is used for phonetic feedback. Choral speaking of sounds, touching of cheeks to feel vibration of the larynx (speech box) and mirror exploration of mouth by children are practiced.

IV.

**EMERGENCE OF
WHOLE WORD**

During the break or as the children leave the room, they tell (whisper) secret word into teacher's ear. Incorrect answers indicate incomplete process of learning. Correct answers pave way to next phases. Paper star is pasted on card to show ONE WORD correctly learned. Ten words earn a gold star.

V.

SEMANTIC EXPLORATION

Reading the word correctly is climax and reward of reading process. Giving out stars is discontinued after a child has collected a minimum of 30 gold stars (basic vocabulary). Now the MEANING of the word is discussed more fully with entire group, first in onomatopoeic terms (sound pictures), morphological appeal (configuration of word), and semantics (meaning). Etymological background (word origin) may be introduced if appealing to child and known to teacher. This will challenge the gifted. Synonyms and antonyms are explored orally in the group.

VI.

REMEDIAL CHECK

Children who have been unable to follow the phases with full benefit are singled out and exposed again to some of the phases where they are weak. Difficulties are pinpointed by the teacher.

Special techniques: Tracing letters made from sandpaper.

Writing letters in sand-box.

Speech correction (defective sounds).

Choral speaking.

Action letters (snake, kick).

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Phase Sequence

Execution and Examples

VII.

CREATIVE EXPANSION

Word families are explored in group sessions. Words are written with different colors, in different places (paper, board, boxes, cloth, etc.). This is contextual manipulation. Lexicography may be introduced at this point, i.e., systematic collection and grouping of words (by alphabet, word family, sound, etc.). ABC is formally introduced and memorized. Children make posters, draw and write on them. Capital letters are introduced.

VIII.

SENTENCE EXPANSION

First attempts are made at forming whole sentences when a sufficient word pool is accumulated. Mention of grammatical structure (subject and predicate—actor and action; statement versus interrogative—saying and questioning). Boxes or trains to manipulate and demonstrate word order (syntax) are used. (Expl.: The cat runs. This is a hat. It this a hat?)

IX.

FINAL SYSTEMATIC CHECK

Teacher keeps check list for each child in class and checks off the phases after the child has mastered them. Write down date when child has finished and mastered a phase.

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SUMMARY

The reading process was critically examined in view of contin-

ually incoming research studies that may contribute towards the enhancement of improved reading instructions. The point of departure was seen in making inferences from reading pathology to normal reading functions. The salient dimensions of the reading process were discussed by stating eight basic postulates. A method for teaching normal children to read based on linguistic and psycho-pedagogical principles was suggested in a nine-phase sequence of teaching methodology. The suggested approach would allow to take normal children through a thorough reading procedure, while at the same time allowing to pick the slow readers and dyslexics. The poor readers could be singled out early and given additional and specific training, similar to the branching technique in programmed instructions.

RESUMEN

El proceso de lectura fue examinado críticamente en vista de la continua aparición de estudios de investigación que puedan contribuir hacia el mejoramiento de métodos de instrucción de la lectura. El punto de partida fue el hacer inferencias de la patología de la lectura a las funciones normales de la lectura. Las dimensiones salientes del proceso de lectura fueron discutidas por medio de ocho postulados básicos. Un método de enseñar a niños normales a leer, basado en principios lingüísticos y psico-pedagógicos, fue sugerido en una metodología de la enseñanza compuesta de una secuencia de nueve fases. El método sugerido permitiría llevar a los niños normales a través de un proceso de lectura muy completo, permitiendo al mismo tiempo seleccionar a los lectores lentos y a los disléxicos. Los lectores que no lean bien podrían ser identificados en un principio y se les daría entrenamiento adicional y específico, parecido a la técnica de "branching" en la instrucción programada.

RESUMO

O processo de leitura foi criticamente examinado em vista das pesquisas que continuam a aparecer e que talvez contribuam para a melhoria dos métodos de instrução em leitura. O ponto de partida foi de fazer inferências da patologia da leitura às funções normais da leitura. As dimensões salientes do processo de leitura foram discutidas por meio de oito postulados básicos. Um método de ensinar crianças normais a ler baseado em princípios lingüísticos e psicopedagógicos foi sugerido através de uma metodologia composta de uma sequência de oito fases. O método sugerido permitiria um procedimento de ensino completo para crianças normais e ao mesmo tempo, a identificação de crianças fracas em leitura e de disléxicos. Os que não lêem bem poderiam ser identificados cedo e assim serem alvos de treinamento adicional e específico parecido à técnica de "branching" na instrução programada.