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ABSTRACT

The purposes of this paper are to explore the reading process from a psycholinguistic point of view and to discuss some of the implications that may have a direct bearing on children's becoming effective and efficient processors of meaning. The paper first reviews related literature in the following areas: language acquisition before school, children as learners, classroom environment, comprehension and reading, conditions promoting effective and efficient reading, and the role of the teacher. It next offers conclusions about the teaching of reading based on the research review, and concludes with recommendations concerning reading instruction. (FL)

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A Psycholinguistic Analysis of Reading and Its Implications for Classroom Instruction

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A Psycholinguistic Analysis of Reading and Its Implications for Classroom Instruction

RATIONALE

Americans' reading ability appears to be a topic of grave concern. Psychology Today (April 1976, p. 69) reported that in the last 12 years, the Scholastic Aptitude Test scores of high school seniors have steadily decreased. Newsweek (March 29, 1976, p. 6) also stated that more than 23 million Americans cannot read, write, or compute well enough to function effectively in today's world.

Certain ethnic minority groups of the United States have apparently experienced not only reading failure, but general academic frustration as well. In accordance with the U. S. Office of Education estimates, at least 5 million students of limited or non-English speaking ability need special language programs (U. S. Commission on Civil Rights, 1975). The 1966 Coleman report stated that by the 12th grade, the Mexican-American student was 4.1 years behind the national norm in math achievement; 3.5 in verbal ability; and 3.3 in reading. The Puerto Rican learner was found to be 4.8 years below the national norm in math; 3.6 in verbal skills; and 3.2 in reading. In addition, the U. S. Commission on Civil Rights (1971) found that in Texas, two-thirds of

the Mexican-American students who remained in school through the 12th grade were deficient in their reading ability by the time they graduated from high school; approximately 44 percent suffered severe reading retardation.

In October 1976, Dr. Dorothy Watson, noted psycholinguist and lecturer, spoke at the area reading conference of the Paisano Reading Council in Laredo, Texas. After participating at the World Reading Congress held in Singapore in May 1976, Dr. Watson concluded that reading problems existed internationally, and the most serious problem was poor reading comprehension.

The evidence above indicates an apparent need for more effective reading instruction. The purpose of this paper is twofold: 1) to explore the reading process from a psycholinguistic point of view; and 2), to discuss some of the implications which may have a direct bearing on youngsters' becoming effective and efficient processors of meaning.

REVIEW OF RELATED LITERATURE

Rather than trying to explain a particular method of teaching reading, an understanding of the process itself would appear to be of greater value for one principal reason. If one comprehends the structure of an entity, the chances of knowing how to incorporate a particular element into the general system are greatly enhanced. For example, with an understanding of the reading process, one could conceivably determine to what degree, if any, phonics instruction was to play while working with a particular child.

Learning to read is a language-learning experience. Goodman and Goodman (1976) and Smith (1978) have consistently reported that learning to read is a natural extension of learning to speak. They also have found that language learning, whether oral or written, is apparently motivated by the need to communicate, to understand, and to be understood. Herein appears to lie the psycholinguistic nature of reading -- processing language by bringing meaning to print in order to make sense of the written material. Learning to read builds on the thought processes and learning strategies which the learner has formulated in learning his native language.

LANGUAGE ACQUISITION BEFORE SCHOOL

Children begin learning since birth. They learn by testing hypotheses

and evaluating feedback (Smith, op. cit.). For example, a child may have the impression that all pointed-eared animals are cats. Consequently, whenever he encounters an animal which fits this criteria, he might say, "Oh, what a pretty cat!", or, in Spanish, "Que gatito tan bonito!" If, however, he happens to see a German Shepherd, also with pointed ears, and says, "Here cat, here!", relevant feedback would certainly appear to be in order. Relevant feedback from his parents could consist of informing the child that the latter animal was a dog, and not a cat.

The child appears to continue to hold on to a particular theory about his environment until appropriate feedback indicates a need to revise it. This theory appears to relate new experiences to those he has already had. Based upon this match, he predicts as to how he should interact with the situation at hand. At all times, it seems that the youngster is trying to make sense of his environment.

In a similar manner, children appear to learn at least one language, to varying degrees, by the time they reach school. Infants gradually, and automatically, master rules which allow them to produce grammatical utterances in the language spoken around them (Brown, 1973; McNeil, 1970). Infants apparently develop "their own grammar." They hypothesize rules for the formation of their speech patterns as and when they require them, and evaluate the appropriateness of these hypotheses by utilizing them to convey meaning. Children progressively alter their hypothesized rules as they receive feedback from the speakers of the language to whom their utterances are directed.

Youngsters just beginning to talk often make statements which are clearly obvious (Smith, op. cit.). A child standing next to his father may say, "See big car." In this instance, the youngster may make the statement in an attempt to verify that the object seen is a car.

A similar situation could exist if a Spanish-dominant child commented to his mother, "Mira carro grande," and the mother responded by saying, "Sí, veo el carro grande." In both instances, the child has the opportunity to learn how to produce sentences in the adult language model, by using tentative utterances which both individuals understand in a situation which is also comprehensible to both.

CHILDREN AS LEARNERS

Children's language and cognitive development continue to expand during their early school years (Cazden, 1972; Chomsky, 1969; and Piaget, 1959). It is therefore reasonable to expect that youngsters will continue to utilize their learning strategies, if given the opportunity to do so.

Since children appear to be effective language users, it would seem to be highly productive to determine which of their learning strategies could be related to successful beginning reading. Reading, as mentioned earlier, is viewed as an interaction between thought and language in an attempt to bring as much meaning as possible to the printed page. The more the conceptual and linguistic background of the learner match the conceptual load and linguistic structures of the material, the better the hypotheses which the reader can make in order to make sense of the information that he is being exposed to (Guszak, 1978a).

With regard to cognitive development, youngsters are apparently in the intuitive phase of the preoperational stage when they enter school (Forester and Mickelson, 1979). They think mainly in concrete terms. The concept of conservation has generally not been mastered, and the youngsters tend to focus on individual elements or situations. Additionally, their logic appears to be inductive and intuitive. These children

evidently look at an overall picture, note recurring patterns, and construct concepts on that basis. These patterns tend to be global and imprecise at first, but they are refined as the children mature. The gradual development from gross observations to fine discriminations proceeds on the basis of observing models, practicing, and receiving feedback. This active process is founded on the youngsters' intuitive recognition of patterns of information, rather than an adherence to a specific set of rules.

CLASSROOM ENVIRONMENT

In a classroom setting, children might be placed in a situation which severely hampers their ability to interact with natural language in a quest for meaning (Forester and Mickelson, ibid). At times, the curriculua of schools suggest that children will be able to successfully understand and use written language if a given set of rules is mastered. Language is often viewed in a synthetic form, in which the learner is required to interact with isolated letters or words. Except for pictures, written language often seems to be devoid of contextual clues.

In a like manner, a structured reading program may tend to restrict spontaneity. The amount of material, which children are exposed to, may tend to be highly limited, and it may often be presented without the use of context or concrete referents. Additionally, there may be little or no fluent reading in class in order to provide a model of normal language inflections. If youngsters are not read to at home, they may not have any idea of what reading is really about (Smith, 1978).

During oral reading in the classroom, children may be constantly corrected for every miscue (a word other than the one in the text)

which they make. Accuracy in word calling may assume a great deal of importance. The end result of this procedure may be a strong dose of rules in an attempt to help the pupil call words accurately (Forester and **Mickelson**, op. cit.).

COMPREHENSION AND READING

As mentioned before, comprehension is the key element in reading. Comprehension in this sense refers to getting one's questions answered, or reducing the amount of uncertainty which may exist when interacting with printed material (**Smith**, op. cit.). A written selection may potentially be perceived in at least three forms: as a series of letters from a particular alphabet, as a sequence of words of a specific language, or as a sequence of meanings in a certain domain of knowledge or comprehension. Basically, written material is a conglomeration of ink marks on a page. Whatever readers perceive in the text - letters, words, or meanings - seems to depend upon their prior knowledge and understanding (nonvisual information) which they bring to the reading act, and on the implicit questions which they ask. The information obtained depends greatly on the amount of uncertainty that existed initially. It appears that uncertainty is reduced in proportion to the amount of nonvisual information which can be brought to bear on the material at hand. The greater the nonvisual information, the more alternatives which can be dismissed, until there are only relatively few, or just one choice, left.

In reading "The cool glass of Hawaiian Punch looked very refreshing.", the information presented above can be exemplified. If the reader is focusing on the visual information to make decisions about letters, he may establish that the first letter in the sentence is "T", the second is "h", the third is "e", and so forth. Alternatively, the same visual

"The" is the first word, "cool" is the second, "glass" is the third, and so on. Finally, this same print could be employed to make decisions about meaning in the sentence. In this instance, the reader is using his nonvisual information to reduce uncertainty about meaning, rather than about letters or words.

According to Smith (ibid) and Guszak (op. cit.), the amount of visual information necessary in order to make letter or word identification depends upon the degree of the reader's initial uncertainty, the number of alternatives which the reader may perceive, and also on the degree to which the reader wants to be confident in the decisions to be made. It appears that the more nonvisual information which a reader brings to the reading task, the less dependent will he be on either letter or word clues. The obvious reason is that the learner is using meaning to process meaning.

The preceding information suggests that reading is based upon the ability to ask specific questions (to make predictions) and on knowing how and where to look at print, so that there is at least a chance of getting the questions answered. In most reading situations, fluent readers seem to ask and answer questions related to the identification of letters, words, syntax and meaning. Smith (op. cit.) and Goodman (1976) have found that if the words, syntactical structures, and semantic clues of the text and the reader's nonvisual information correlate closely, there tends to be very little need to focus on visual clues of letters in order to process the meaning of a passage. For example, excogitate the following sentence (perhaps the sentence could occur at the bottom right-hand corner of a page in a book):

During a real game, football players always wear hel-

If the learner were to use visual information, he could turn the page to see the remainder of the letters in the word. However, certain predictions can be made about how the sentence will continue before turning the page. The pronunciation of the syllable provides a grapho-phonic cue, and the syntactical position of the incomplete element indicates that either an adjective or a noun is likely to fill the slot. In utilizing the semantic clues of the sentence, in conjunction with the preceding information, it is likely to become evident that the incomplete term is <u>helmet</u>. Because the different types of clues help to reduce uncertainty, they appear to be redundant to that extent.

The questions asked by the reader are generally viewed as alternatives. They are not used simultaneously, and it is not necessary for the reader to ask them in sequence. Reading is not viewed as a synthetic process in which the learner is required to go from the letter, to the word, and finally to meaning identification. Instead, the process is perceived as one involving visual information (print), from which the reader selects distinctive features and makes decisions among the alternatives in which he is interested. Thus, as the learner gets his questions answered and makes decisions about the material with which he is interacting, reading tends to start becoming interesting and relevant, since it is related to what the individual wants to know (Smith, op. cit.).

In their research, Guszak (1978b) and Smith (ibid) have found that effective reading needs to be rapid and not overly-cautious, if the reader is to maintain his focus on comprehension (getting his questions answered). Slow reading (i. e., a third grade child reading less than 40 words per minute or an adult less than 200 words per minute, unless the text is already understood) appears to interfere with comprehension and learning, since it tends to overload the visual

system and memory. In this instance, the reader would apparently be focusing greatly on either words or their individual constituents, which in and of themselves do not contain meaning. Nonvisual information, however, allows for rapidity in reading, by permitting the brain to select relevant visual input in order to continue to process meaning.

By this point, it is apparently obvious that for a youngster to become a fluent reader, he must learn how to employ nonvisual information efficiently when attending to print. Smith (ibid) has found that children apparently master spoken language, to varying degrees, by using it to convey messages and to understand (or make sense) of other information. In a similar fashion, youngsters seemingly try to understand what reading is about by generating hypotheses and evaluating them in an attempt to make sense of the material with which they are interacting.

CONDITIONS PROMOTING EFFECTIVE AND EFFICIENT READING

Having provided some insight into the reading process, it would appear to be useful to investigate the conditions in which the type of reading, which has been discussed, may occur. Evidence (Sims, 1979; Goodman and Goodman, 1977; and Smith, 1977) indicates that children can learn to read by being provided with the opportunity to formulate and test hypotheses in a meaningful context. The only way a child can apparently do this is by reading. For the child who has not yet learned to read, having stories read to him during the interim period allows the youngster to develop this skill of prediction.

In addition to the previous information, it appears that children need to have access to meaningful and interesting reading material (if possible, that of the child's own choice), assistance where needed (and only to the degree necessitated), a willingness to take necessary

risks, and the freedom to make mistakes. Hypothesizing appears to be worthwhile only when there is a possibility of being wrong. It is then that the child has the apparent opportunity to learn by determining whether or not he was right (Smith, 1978).

Written language seems to provide many of the learning cues which youngsters require (Smith, ibid). For example, if a student is not certain about the apparent meaning of a portion of material, the context (before and after) may provide assistance. In addition, subsequent context tends to provide feedback as to whether or not the hypotheses were correct. The following example will hopefully exemplify these ideas.

> Juanita enjoyed her birthday party very much. She laughed, played games, and ate cake.

If a youngster had difficulty interpreting the meaning of enjoyed, it is expected that the remainder of the first sentence and the second one would provide sufficient clues in order to answer the questions concerning Juanita's views about the party. A similar procedure could be employed in other situations in which there is uncertainty.

To make sense of language, youngsters need to bring meaning to it, which implies that they must perceive a meaningful purpose for being exposed to it. In school, this need suggests that children not only need to understand the instructional content, but also the purpose behind it. If youngsters have not attained this goal, then many of the instructional efforts of the teacher may be in vain, or viewed as nonsense, by the students (Frymier, 1977).

Another aspect of language which appears to influence success in reading involves the child being able to differentiate spoken language

from written language. Spoken language tends to occur within a context which is generally familiar both to the speaker and to the listener. For this reason, extended utterances often may not be required in order to convey meaning. Additionally, if the listener happens to misinterpret any part of the conversation, he may listen to subsequent portions in an attempt to hypothesize the meaning of the previously missed part. If this alternative does not yield productive results, the listener may ask the speaker to repeat a certain portion of the message (Macnamara, 1972; Smith, 1978).

Written language may differ from spoken language in certain respects. The author, generally writing for a particular audience, may tend to use a certain style, confining his lexical, syntactical, and semantic clues to a particular dimension. For example, a writer of children's books would probably write much differently from someone producing material for a high school government text. Becoming familiar with the writing patterns of the text would appear to be of tremendous value to any reader. This language tends to provide its own syntactical and semantic clues, which may help a learner to hypothesize and evaluate his hypotheses concerning the meaning of the material. If the learner has any question about his interpretation, he may regress to a particular point in the text and/or read ahead in an attempt to confirm or deny his predictions (Goodman, 1973).

Children who cannot read yet appear to benefit from having coherent stories read to them. The material may range from newspaper and magazine articles to fairy tales; and from ghost and adventure stories to history and myths. These types of stories seem to reflect written language generated for a purpose in an orthodox fashion and are distinguishable from some school texts by their length, sense, semantic, and syntactical

quality. In addition, since children seem to need adults as models, they generally endeavor to learn and understand whatever adults do, provided they observe adults enjoying performing it. It appears that if meaningful written language permeates the child's environment, and is obviously used with pleasure, then the youngsters will strive to master it (Smith, op. cit.).

THE ROLE OF THE TEACHER

In the view of reading which has been discussed, the teacher is perceived as an understanding and very well informed guide or facilitator, with a great deal of insight, both into the students and the reading process. Teachers need to understand the nature of fluent reading, children's general patterns of learning, and be particularly sensitive to youngsters' feelings, interests, and abilities at any particular time (Smith, 1973).

To be effective facilitators of reading, teachers apparently need additional competencies. Goodman and Goodman (1976) state that educators need to understand how language functions in conveying meaning, and how communication of meaning serves as the context in which language is used and learned. Understanding the motivations which lead children to learn, or not learn language, as well as an insight into the cultural factors which make the acquisition of literacy of more or less personal importance to children of differing backgrounds also seem to be essential. Comprehending the natural process of acquisition of literacy, which some children achieve, and the youngsters' self-initiation of literacy in literate societies also seem to be very important. And finally, it appears to be crucial for educators to possess a working knowledge of how to create programs and environments which enhance the natural

motivations, awareness, experiences, and cultural dimensions of youngsters so that reading is acquired naturally.

The principal function of reading teachers appears to be one of insuring that children have many opportunities to read. In order to encourage this process, it appears to be of paramount importance to have children self-select books, for at least a portion of their reading time. At times, it may be necessary for a teacher to guide a child into reading a book at a certain level for purposes of direct instruction (Guszak, 1978a).

In working with youngsters, this writer has found that children tend to generally select material which they can understand and is interesting to them. Fears that pupils will tend to select material which is either too difficult, or too easy, generally seem to be unconfirmed. Children continuously seem to strive to make sense of their endeavors. Smith (1978) has arrived at similar conclusions.

In addition to allowing children to select at least a portion of their reading material, teachers also apparently need to comprehend situations which may make reading troublesome (Smith, ibid). Certain behaviors may lead to the reduction or complete loss of meaning. Among these are:

1) Concentrating on visual detail to the extent that tunnel vision may result.

   (Tunnel vision refers to the condition resulting as a consequence of an individual focusing so much on a particular aspect, i. e., a letter, word, or portion of a story, that comprehension of the total material is lost. This behavior, as well as memory overload, tend to occur when the learner is interacting with a piece of material for which he has very limited or no nonvisual information. Consequently, very little or no meaning is being processed. It appears that the more the learner tries to concentrate on the particular aspect of the text, the less he understands. This situation is easily illustrated by a person with no math or engineering background trying to understand

a calculus textbook.

2) Attempting to pack so much information into long-term memory that confusion tends to result;

(This behavior may occur when an individual tries to remember a great deal of information in order to write a report.)

3) Attempting to sound out words while foresaking meaning;

4) Reading slowly;

5) Being afraid of making a mistake;

6) Not providing a youngster with assistance when required for sense or even word identification; or,

7) Being insistent on correct word calling to the point that the child does not self-correct when he makes a miscue, which does significantly alter the meaning of the selection.

The preceding information implies that the more nonvisual information which a student can bring to the reading act, the easier reading will become, primarily because it will make sense. This statement leads to the importance of the teacher insuring that pupils have the necessary background about new subject matter before they are asked to read it. If learners were to be required to read material concerning an unfamiliar topic without adequate nonvisual information, a lack of comprehension and the impression that reading is not supposed to be meaningful could result (Kolers, 1973).

At times, teachers may have the idea that the solution to the problem reader's dilemna lies in concentrating on isolated word attack drills. However, it appears that these skills tend to be recognized and mastered best when presented in meaningful context. Samuels (1971) found that fluent readers tended to be very proficient in phonics analysis, as well as in letter and word identification, because they were good readers, not as a consequence of being instructed on isolated skills.

Beginning readers may initially tend to make reversals. Words such

as <u>was</u> and <u>saw</u>, or <u>big</u> and <u>dig</u>, may be interchangeably miscalled. Smith (op. cit.) has found that this behavior appears to be due to the youngsters' limited knowledge of distinctive features in a sophisticated discrimination task. Fluent readers, processing meaning accurately, do not seem to make reversals very frequently, since they tend to make use of the syntactical and semantic clues provided by the material. By providing youngsters with the opportunity to compare side by side the distinctive features of such words as <u>big</u> and <u>dig</u>, teachers may help them to visually discriminate the difference between the two. Additionally, allowing the children to read connected discourse, which is relevant to them and which contains the reversal items in a meaningful context, has been found to be quite profitable (Guszak, 1978a).

One final comment regarding the child's reading behavior seems to need mentioning. Smith (1978) has found that correcting a child's oral reading apparently needs to be handled very carefully. Instead of immediately telling a youngster the correct word when he makes a miscue, or telling him the item when he pauses, it seems that a teacher should first ask herself certain questions. Among these are: What is the child doing? What is creating the problems for him? By answering these questions, the teacher's assistance may be more timely and effective. Also, this kind of teacher guidance may prevent the child from doubting his own ability to read. It appears that if a youngster is constantly being corrected when he reads, or is immediately told a word when he pauses, he may internalize the idea that he really cannot process print very well. The potential for the actualization of the self-fulfilling prophecy seems to be very great under these circumstances.

ADDITIONAL RELATED RESEARCH

Other research efforts, employing the view of reading which has been described, have been undertaken by different individuals. Hudelson (1979) found that native Spanish-speaking Mexican-American children, in the second and third grade attending two schools in a south Texas border town, did make word recognition errors while reading in Spanish. The errors (or miscues) were made both when the youngsters read from a word list as well as from connected material. Some of the miscues made on the word list were later corrected in the selection. However, some of the miscues made in the passage were not made when reading the list of words.

Hudelson further established that the youngsters' word recognition accuracy was greater when they read from the connected material rather than from the word list. The children relied on whatever phonics skills they had developed in order to read the word list. Nevertheless, during the reading of the connected passage, the students used not only their phonics capabilities, but also the contextual clues of the material to process meaning. This phenomenon corroborates the findings of Goodman (1969) and Tortelli (1975) with English readers.

The subjects in Hudelson's investigation were frequently found to be hypothesizing about upcoming structures in connected reading. This behavior indicates that they were processing meaning with the aid of syntactical and semantic clues, since their anticipated utterances, even when they were miscues, retained the meaning of the word(s) in the selection. Many of these words had previously been correctly read on the word list. This fact also reinforces Goodman's (op. cit.), Tortelli's (op. cit.), Sims (op. cit.), and Anderson's (1974) findings in English reading.

All of the preceding research information indicates that teachers cannot rely on any one method of teaching reading. Instead, educators apparently need to ask what they need to know about their students in order to be able to make constructive decisions. A sound knowledge and understanding of the reading process appears to be the basis for these courses of action. Applying these competencies in interpreting what students have found too easy or too difficult, meaningful or nonsense, and interesting or dull would seemingly aid in enhancing the accuracy of the decisions which are reached (Smith, 1978).

CONCLUSIONS

The recurrent theme throughout the entire review of related literature is that effective and efficient reading tends to capitalize on the learner's nonvisual information in order to help him bring meaning to the printed page and thereby find meaning (or sense) in the material. It also appears to be of paramount importance for the teacher to guide the learner in making optimum use of the grapho-phonic, syntactical, and semantic cues of written language in order to facilitate the process of predicting information. Apparently, it is the use of nonvisual information which allows printed material to be processed quickly, and thus allow reading to make sense. If progress through a written passage is too slow, it seems that tunnel vision and memory overload are likely to occur.

Another significant observation from the literature review appears to be that children get good at reading by reading. This process, facilitated through the procedures mentioned above, seems to become more a part of the child's life, if he is exposed to it continuously in a meaningful and pleasurable manner. This view has been supported by Wingfield, et. al. (1979) in exploring alternatives to help children succeed in reading.

Youngsters apparently tend to endeavor in activities that make sense to them and which are enjoyable. Watson's (1974) work with fifth graders provides corroborative evidence to this statement. The pupils were allowed to choose reading material from 3,000 paperback books which they read during a four-month period. Statistically significant improvements were noted in the student's use of syntactical and semantic information, as well as in their comprehension (retelling) of the content of the story. Additionally, the miscues per hundred words decreased considerably over the four-month period.

Since it appears that children acquire spoken language in a very natural fashion, obtaining literacy skills apparently can also occur in a similar fashion, provided the teacher guides the students in that direction. As has been established by previous research efforts (Bond and Dykstra, 1967), the teacher is the apparent key to the youngsters' success or failure in reading. This implies that the teacher's philosophy about education and her diagnostic-prescriptive abilities in dealing with children play a highly significant role in the eventual achievement of the learners.

If the teacher views the reading process as a part-to-whole relationship, reading instruction is likely to be greatly influenced by synthetic components, i. e., phonics. When this occurs, the child will probably be exposed to a highly abstract process involving the sequential recognition of letters and their sounds, words, sentences, and eventually the meaning of the selection. Since meaning is not apparently evident from the beginning, this procedure may create in the child the impression that reading is not suppose to make sense from the outset. This belief appears to be contradictory to what

the youngster has been accustomed to look for since his learning process and spoken language began to develop.

On the other hand, if reading is considered as a process whereby the learner utilizes his nonvisual information in the most efficient and effective manner at the outset in order to bring meaning to the printed page, then reading has the potential to be meaningful immediately. Generally, youngsters come to school equipped with a learning and language system which has apparently been working relatively well for them. It does not seem reasonable to bypass these assets and substitute a highly abstract means for acquiring literacy, when the child's nonvisual information and linguistic background can apparently provide a much more solid foundation on which to build.

Reading instruction based on the premise of allowing and guiding students to use their nonvisual information in order to selectively use grapho-phonic, syntactical, and semantic clues in order to hypothesize about the meaning of a selection, and consequently either verify or negate this prediction, appears to have a greater opportunity to succeed than instruction based on synthetic phonics alone. In the implementation of Spanish reading instruction from a psycholinguistic point of view, Hudelson (op. cit.) found that in the first year, 22 percent of the children were reading at first grade level; and by the second year, 34 percent were reading at this level or above. With a totally synthetic program, only about 12 percent of the students had been able to read at the first grade level by the end of the first year.

Children apparently learn to read only once, and it seems that they do so easier when they start in their native language. Modiano (1966) obtained supporting evidence to this statement. Additionally, Thonis (1976) found that with an adequate oral language base

(i. e., in English), youngsters could transfer their Spanish reading skills into English reading. Viewing reading as an enterprise, in which the learner brings meaning to the written material in an attempt to make sense of the content, would appear to add a highly significant and positive dimension both to a bilingual education program and to the regular curriculum. The students would apparently profit tremendously from such efforts.

RECOMMENDATIONS

Based upon the information presented in this paper, this writer would like to make the following recommendations. It is strongly suggested that university teacher-training programs, as well as pre-service and in-service training in school districts, seriously consider providing teachers with an analysis of the reading process from a psycholinguistic point of view, if such an endeavor is not already in progress. It apparently would be essential to insure that follow-up training sessions with the teachers were conducted on a frequent and regular basis in order to provide any further assistance which could be needed.

The statistics cited in the RATIONALE section of this paper indicate a great need for improving the quality of reading instruction in our educational institutions. In an attempt to insure that all of our students have a genuine opportunity to participate fully in a cultural democracy, perceiving reading and learning to read from a psycholinguistic dimension appears to be a viable alternative in an attempt to reach this goal.

BIBLIOGRAPHY

Anderson, Dorothy Jean. "A Psycholinguistic Description of the Oral Reading Miscues of Selected First Grade Students Participating in a Supplemental Language Based Program." In Dissertation Abstracts International. Ann Arbor, Michigan: Xerox Corporation, 1974, Vol. 35, No. 5, pp. 2755-A to 2756-A.

Bond, G. and R. Dykstra. Final Report: Coordinating Center for First Grade Reading Instruction Programs. Cooperative Research Project X-001. Minneapolis, Minnesota: University of Minnesota, 1967.

Brown, Roger. A First Language: The Early Stages. Cambridge, Massachusetts: Harvafd University Press, 1973.

Cazden, Courtney B. Child Language and Education. New York, New York: Holt, Rinehart, and Winston, Inc., 1972.

Chomsky, Carol. The Acquisition of Syntax in Children from Five to Ten. Cambridge, Massachusetts: M. I. T. Press, 1969.

Coleman, J. Equality of Educational Opportunity. Washington, D. C.: U. S. Department of Health, Education, and Welfare, 1966.

Forester, Anne D. and Norma I. Miclelson. "Language Acquisition and Learning to Read." In Applied Linguistics and Reading. (Robert E. Shafer, editor). Newark, Delaware: International Reading Association, 1979, pp. 78-88.

Frymier, Jack. Annehurst Curriculum Classification System - A Practical Way to Individualize Instruction. West Lafayette, Indiana: Kappa Delta Pi Press, 1977.

Goodman, Kenneth S. "Behind the Eye: What Happens in Reading." In Theoretical Models and Processes of Reading. (second edition). (Harry Singer and Robert B. Ruddell, editors). Newark, Delaware: International Reading Association, 1976, pp. 470-496.

Goodman, Kenneth S. "Miscues: Windows on the Reading Process." In Miscue Analysis. (Kenneth S. Goodman, editor). Urbana, Illinois: ERIC Clearinghouse on Reading and Communication Skills, 1973, pp. 3-14.

_______________. "Psycholinguistic Universals in the Reading Process." Speech delivered at the Second International Congress of Applied Linguistics in Cambridge, England, 1969.

_______________ and Yetta M. Goodman. "Learning About Psycholinguistic Processes by Analyzing Oral Reading." In Harvard Educational Review. Montpelier, Vermont: Capital City Press, 1977, Vol. 47, No. 3, pp. 317-333.

_______________. "Learning to Read is Natural." Paper presented at the Conference on Theory and Practice of Beginning Reading Instruction, Pittsburgh, Pennsylvania, 1976.

Guszak, Frank J. Diagnostic Reading Instruction in the Elementary School. (second edition). New York, New York: Harper and Row, Publishers, 1978a.

_______________. Individualizing Your Reading Program in 23 Days. Manchaca, Texas: Sterling Swift Publishing Company, 1978b.

Hudelson, Sarah. "Spanish Reading for Spanish Speakers: A Theory and Classroom Implications." In Applied Linguistics and Reading. (Robert E. Shafer, editor). Newark, Delaware: International Reading Association, 1979, pp. 129-141.

Kolers, Paul.A. "Three Stages of Reading." In Psycholinguistics and Reading. (Frank Smith, editor). Dallas, Texas: Holt, Rinehart, and Winston, Inc., 1973, pp. 28-49.

McNeil, David. The Acquisition of Language: The Study of Developmental Psycholinguistics. New York, New York: Harper and Row, Publishers, 1970.

Macnamara, John. "Cognitive Basis of Language Learning in Infants." In Psychological Review. 1972, Vol. 79, No. 1, pp. 1-13.

Modiano, Nancy. "The Most Effective Language of Instruction for Beginning Reading: A Field Study." In Teaching the Bilingual. (Frank J. Piarlosi, editor). Tucson, Arizona: The University of Arizona Press, 1974, pp. 139-166.

Piaget, Jean. The Language and Thought of the Child. (third edition). New York, New York: The Humaities Press, 1959.

Samuels, S. Jay. "Letter-Name Versus Letter-Sound Knowledge in Learning to Read." In The Reading Teacher. Newark, Delaware: International Reading Association, 1971, Vol. 24, pp. 604-608.

Sims, Rudine. "Miscue Analysis: Emphasis on Comprehension." In Applied Linguistics and Reading. (Robert E. Shafer, editor). Newark, Delaware: International Reading Association, 1979.

Smith, Frank. "Making Sense of Reading - And of Reading Instruction." In Harvard Educational Review. Montpelier, Vermont: Capital City Press, 1977, Vol. 47, No. 3, pp. 386-395.

__________. Understanding Reading. (second edition). Dallas, Texas: Holt, Rinehart, and Winston, Inc., 1978.

__________ (editor). Psycholinguistics and Reading. Dallas, Texas: Holt, Rinehart, and Winston, Inc., 1973.

Thonis, Eleonor Wall. Teaching Reading to Non-English Speakers. New York, New York: Collier Macmillan International, Inc., 1976.

Tortelli, James Peter. "A Psycholinguistic Description of the Effects of Strategy Lessons Upon the Oral Reading Behavior of Twelve Below-Average Readers of Differing Linguistic Backgrounds, Grades Four, Five, and Six." In Dissertation Abstracts International. Ann Arbor, Michigan: Xerox Corporation, 1975, Vol. 35, No. 7A, pp. 4142-A to 4143-A.

U. S. Commission on Civil Rights. A Better Chance to Learn: Bilingual-Bicultural Education. Washington, D. C.: U. S. Government Printing Office, 1975.

__________. The Unfinished Education - Outcomes for Minorities in the Five Southwestern States: Mexican American Educational Series, Report II. Washington, D. C.: U. S. Government Printing Office, 1971.

Watson, Dorothy J. Harper. "A Psycholinguistic Description of the Oral Reading Miscues Generated by Selected Readers Prior to and Following Exposure to a Saturated Book Program." In Dissertation Abstracts International. Ann Arbor, Michigan: Xerox Corporation, 1974, Vol. 34, No. 7, pp. 4094-A to 4095-A.

Wingfield, Arthur, et. al. "Why Should the Child Want to Learn to Read?" In Applied Linguistics and Reading. (Robert E. Shafer, editor). Newark, Delaware: International Reading Association, 1979, pp. 23-29.