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NONVISUAL ASPECTS OF READING

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Psycholinguistic research has recently characterized reading as a communicative process whereby the reader predicts the thoughts of an author by sampling as little of the visual display (print) as possible (Goodman, 1967). How is it possible for a reader to predict an author's thoughts accurately without processing every segment of print? In addition to minimal visual cues, readers utilize both their oral language abilities and past experiences to predict an author's intentions assuming they share common language patterns and experiences. For example, read the following cloze passage.

The boy ran and ------ into the pool. The ---- problem was that he --- to take his clothes ---. His mother was really ----- with him for getting --- new clothes wet.

Were you able to tell which words were missing? Were you using your knowledge of language and the world? Ask friends to do the exercise also then compare your results. Were your predictions reliable?

It would appear that readers do not depend solely on the visual aspects of reading, but also make use of their non-visual understandings of language and the world to decode print. Meaning is not found in the ink it is in the minds of readers and writers. Obviously, the reading act is dependent on visual symbols; but, on the other hand, symbols are meaningless if the reader does not relate such print to his past experiences and language. Because symbols are completely dependent on thought to bridge the gap between intrinsically meaningless print and meaning, it would appear that reading is mostly a nonvisual activity.

Nonvisual Components and Their Implications for Instruction*

If reading is mostly a communicative/nonvisual process, what are the nonvisual components of reading and what implications do they hold for instruction? The remainder of this article deals with a discussion of seven of these components which appear to be prerequisite to successful reader-author communication. Each of the items discussed is followed by suggestions for implementing such ideas in the classroom.

1. Desiring to Know. Human beings seem to be born with a desire to know. From the first day of life, babies begin interacting with their environment. By the time children enter school they not only know a great deal about their physical and social world but have also acquired most of

*The term nonvisual as used in the following discussion refers to any aspect of reading except the visual sensations received from print and their transmission to the brain.
the significant language patterns of their community. It would appear that most of the language learning that takes place before school entry is acquired informally and motivated by children's real needs whether they be physical, intellectual or emotional.

Effective language learning in school is also dependent on a child's need to communicate with others "face to face" or vicariously in the context of meaningful learning experiences and/or social situations. When a child reads, will he be inclined to predict the thoughts of an author if he doesn't want to know what the author is communicating? Don't children read best when the text relates directly to their perceived needs and interests?

Implications for Instruction: Wanting to know is probably one of the most important factors underlying successful reading. Therefore, provide children with a wide array of children's books based on highly diversified topics which increases the probability of children locating books they want to read. The "magic moment" for the reluctant reader is when he encounters that "special" book which makes reading "come alive" for him. Providing children with motivating materials is critical if they are to succeed — not because such an idea is "educationally in," but because the desire to know is necessary if children are to read/predict the author's message successfully.

2. Understanding the Nature and Purpose of Reading. Downing (1970), Reid (1966), Vygotsky (1962) and Tovey (1976) suggests that many beginning readers experience difficulties learning to read partly because they do not understand the purpose and nature of reading. That is, reading is a communicative process whereby the reader communicates with an author by silently viewing as little of the visual display as possible to determine the authors thoughts not "sounding-out" words, talking, spelling, breathing and so on (Tovey, 1976). Children seem conditioned to view reading as an oral activity rather than a silent-visual process (Tovey, 1976). Instruction that stresses the oral-mechanical aspects of reading but fails to emphasize reading as a silent communicative process oftentimes confuses children, which may in turn bring on a sense of purposelessness, futility and/or failure.

Implications for Instruction: An effective way of helping children understand the purpose and nature of reading is through the use of short selections and the "Three Step Format." That is, after giving children short selections of high interest such as comic strips, cartoons, paragraphs from magazines and so on, ask: (Step 1) "Are there any words you don't know? If so, ask and I will help you!" (Step 2) "Read the selection silently." (Step 3) "Tell me what the selection was about in your own words."

Soon children learn that they are expected to get meaning from print (Step 3). This process conditions children to search for meaning whenever they view print instead of trying to "sound-it-out." Success will be realized if this approach is used frequently enough and its purpose is understood. These brief and enjoyable reading selections help children overcome their erroneous concepts of reading and discover its real purpose by having many
successful reading experiences. Soon, whenever these children see print they will think of meaning not sound.

3. Perceiving Oneself as a Reader. Children who have experienced reading difficulties many times develop negative attitudes toward reading and their ability to read. Doesn't a student's perceptions of his ability to read affect his reading performance?

Implications for Instruction: Many children do not perceive of themselves as readers because they have never found a book they can read and want to read. Contrarily, in graded systems, students are often expected to read materials which are too difficult and of little personal interest. They have been convinced that they cannot read because of the many times they have experienced failure. Reading must be easy. If a book can't be found with print that a child can process easily, use dictation. That is, children learn to read by reading stories they have dictated to their scribe/teacher.

If children have enough successful and enjoyable reading experiences they will begin perceiving themselves as readers. Why aren't books matched to students' interests and abilities to a greater degree?

4. Reading for Meaning. Traditional reading instruction has emphasized the learning of sound-symbol relationships in order to "sound-out" words within sentences to produce meaning. Consequently, it seems that many teachers have encouraged their students to "read" by pronouncing each letter and/or word "correctly" and precisely in order to keep the meaning intact.

More recent research findings (Smith, 1975), however, suggest that readers begin with meaning rather than with the pronunciation of words. Smith claims that the pronunciation of many words is not possible before children are aware of their grammatical function and meaning in the text. For example, "How is h-o-u-s-e pronounced?" One really doesn't know until it is in the context of a sentence such as, "John's family bought a new house," or "They can house six people in their travel trailer." Single words are not language. They must be processed with other words before their meaning and/or pronunciation becomes apparent. Reading is intrinsically a meaning-centered activity.

Implications for Instruction: The problems inherent with "sounding-out" words one by one to derive meaning from print (Smith, 1975) seems to negate the value of "round-robin" reading which appears to emphasize the naming of words rather than "zeroing-in" on meaning. In "round robin" reading children take turns reading aloud to assure their teacher that they know all the words. Not only is such a process ineffective, it seems to condition children to think of reading as an oral activity.

Therefore, silent reading needs to be stressed. Meaning should be valued more than the correct and precise pronunciation of each letter and/or word in the text. Good readers often substitute, add and delete words in the text, but rarely alter meaning significantly. Children can read for meaning if they understand the purpose of reading and are given guidance in selecting books they want to read and can read.

5. Sharing Common Thoughts and Experiences with an Author. If
children are to interact with the thoughts of an author, it is critical that they have "lived" the thoughts and experiences reflected in the text. Readers have difficulty communicating with an author regarding thoughts and experiences they have not had. Many times difficulties diagnosed as reading problems are really learning problems. That is, children must internalize the thoughts of the author through concrete and subsequent oral-aural experiences before trying to attach meaning to graphic symbols which represent such ideas.

Implications for Instruction: If reader-author thoughts and experiences are to be matched, a self-selection process for choosing books seems imperative. Materials that interest children will probably reflect their thoughts and experiences also. Students are usually interested in topics with which they are familiar and knowledgeable. Yet, relatively few reading programs seem to be based on these assumptions. Is it likely that every boy and girl in a reading group would choose the same book if given a choice? Each child should have the opportunity of choosing books from a wide range of titles and reading levels. Besides having many books available, young readers should be exposed to newspapers, a variety of magazines and other reading materials of interest.

6. Sharing Common Language Patterns with an Author. Reading is facilitated when the language patterns of the text match those of the reader. In a pluralistic society, however, many children come to school speaking various dialects. What happens when these students read Standard English? What effect does divergent linguistic behavior have on a child's reading?

Children, who use language patterns which do not match or complement those of the author, will probably experience some difficulty reading. However, because of the extraordinary linguistic competencies most children possess, the mismatch is not as critical as one might believe. For example, a black child reading, "Henry went to the store," might read, "Henry, he be going to the store." Such reading behavior, however, should not be viewed as deficient as it exemplifies second language learners' exceptional linguistic abilities. They not only derive meaning from the text as it is printed but also translate it into their own language patterns.

Implications for Instruction: Every effort possible should be made to match reading materials to children's language patterns. However, if this is not possible, the reading behavior of dialect speakers should be accepted—the reader and author are communicating. Furthermore, such reading behavior needs to be understood and respected as a demonstration of children's highly developed linguistic competencies and not be perceived as deficient reading. The reading patterns of such children will slowly change as they internalize the phonology and grammar of their second language more fully by interacting with Standard English speakers aurally-orally.

On the other hand, for children who speak Standard English, matching materials to their language patterns is not such a problem if they read books that interest them. As stated previously, selections which interest children
usually reflect their thoughts and experiences which in turn are represented
by familiar language patterns. Experience, thought and language seem to
be interrelated and inseparable.

7. Predicting an Author's Message. How many teachers think of reading
as a predictive process using as little visual information as possible? How
many children are taught to view reading in this way? It would appear that
most children eventually become fluent readers/predictors in spite of in-
struction they receive. Most, however, would probably learn to read faster
and more easily if they viewed reading as a silent process of deriving
meaning from print without processing every letter and/or word. As stated
previously, children are able to predict an author's thoughts without
viewing every segment of print because of their implicit knowledge of syntax
(rules for combining words into sentences) and semantics (meaning aspects
of language). Why aren't children encouraged to view reading as a
predictive process?

Implications for Instruction: Predictive abilities can be improved by
stimulating children to read books that are of interest and not too difficult.
“Not too difficult” refers not only to the complexity of language but also to
the amount of print on a page or in a book. When confronted with a “thick
book” many children are overwhelmed before they start, even though they
could process the material if it were presented to them in smaller units.
Children need to read many “thin books” to build their confidence and
competencies as readers. Reading must be “easy” if children are to become
involved maximally in the predictive process. Otherwise, they become
discouraged and resort to “sounding-out” words one by one.

Children can also be conditioned to use their knowledge of language
(syntax) and the world (semantics) to predict unknown words they en-
counter. For example, when children ask, “What word is that?”, instead of
telling them, ask, “What do you think it is?” This forces them to use their
syntactic and semantic knowledge to predict the unknown word. If the child
still doesn't recognize a word such as “licked” in the sentence, “The brown
bear licked the honey,” ask him, “What do bears do with honey?” You
might also ask him to read the rest of the paragraph or page to see if he can
discover the idea that “l-i-c-k-e-d” represents.

In Closing

This discussion is not presented as a comprehensive treatment of the
nonvisual aspects of reading. It does suggest, however, that (1) these
nonvisual elements are prerequisite to successful reading and (2) traditional
reading instruction has overemphasized the visual and needs to be
reevaluated according to the psycholinguistic nature of the reading process.

This point of view is also supported by Kolers (1968) in an article en-
titled "Reading is Only Incidentally Visual." He recommends

... that the teaching of reading move away from the purely visual
and purely geometric—even from the symbol-sound relations that
are now being taught—and emphasize the clue-search for in-
formation-extracting characteristic of reading.
It should not be inferred from this discussion, however, that the visual aspects of reading are unimportant. That would be absurd. Traditionally, however, reading instruction has tended to overemphasize the visual, thus implying that meaning is found in the ink/print. In turn, the function of the eye seems to have been viewed, consciously or not, as receiving and then communicating such meaning to the brain. Eyes can neither receive nor communicate meaning; their role is to receive visual sensations which are transmitted as impulses to the brain where they are processed into meaning. Eye movements are initiated and guided by cognitive activity, not the reverse. Therefore, the symbolic role of the visual aspects of reading (print) should not be confused with the nonvisual reality and dynamics of thought and language which makes reading possible.

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