April 1979

Research Perspectives: Reading Comprehension

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Most people agree that the ultimate goal of reading instruction is to develop the ability to comprehend the writer's message. Many of us, however, are unsure of precisely what is known about comprehension and find it difficult to teach. More and more knowledge is being accumulated, however, as evidenced by the four recent research emphases in reading comprehension which are summarized here: the nature of reading comprehension, the limiting conditions, what should be taught and how it should be taught.

The Nature of Comprehension

Recently, reading comprehension has been explained as part of the larger phenomenom of "language comprehension," a fact reflected in recent definitions of reading comprehension which emphasize the similarity between comprehending print and comprehending oral language (8, 10, 28). As Chomsky (11) has said:

> . . . the teacher of reading is not introducing the child to some new and obscure system that is only distantly related to the spoken language . . . rather, the teacher is engaged in bringing to consciousness a system that plays a basic role in the spoken language itself.

Carroll (9) reinforces this when he states:

> Reading teachers must . . . consider one of their primary responsibilities to be helping students attain language comprehension (quite apart from reading comprehension) . . . since much of the deficiency that students exhibit in reading comprehension is probably traceable to deficiencies in language comprehension.

While reading comprehension is similar to spoken communication, it does possess certain distinct and unique characteristics which distinguish it from oral language. As Calfey and Drum (8) point out:

> When he [the student] comes to the learning of reading, he must learn a new representation of language (printed text) and a new method of comprehension (context-free prose).

Goodman (19) elaborates on the second distinction when he describes oral language as a face-to-face communication which is strongly supported by the situation in which it is used while print language is usually isolated from the actual situation by both time and location, thereby making it impossible to use cues such as body language which are so helpful in our interpretation of oral language.

It can be said, then, that reading comprehension is based on effective oral comprehension and utilizes the same general principles of language. However, it also possesses print-related features which make it unique.

Conditions Which Can Limit Reading Comprehension

Not surprisingly, children differ in the rate at which they learn to comprehend print. These differences are caused by conditions which limit how much one can comprehend and include language conditions, experience conditions and print conditions.

The *language associated conditions* include both the language comprehension described above and cognition, which is the individual's potential for verbal learning. Carroll (9) illustrates the interaction of these variables by making an analogy to a stereo receiver having three control levers; in this case, however, the levers are reading comprehension, language comprehension and cognitive ability. The cognitive ability lever moves steadily upward with time and controls the language comprehension lever since a person can comprehend language only to the limit of one's cognitive ability; the reading comprehension lever, in turn, can not go beyond the language comprehension lever since children can comprehend reading only to the limits of their oral language competence.

Experiential memory is also a limiting factor in comprehension since one cannot comprehend what has not been experienced in some form (1, 6, 8, 32). In fact, it appears that readers try to fit language messages to their experience even when

there is little relationship between the two, a fact which may explain why recall is seldom an exact reproduction of what has been read (7, 8). As Smith (35) suggests, a good reader processes what is read in terms of a unique meaning structure which has been shaped by his/her individual experience. Consequently, variations between the writer's and the reader's experience often result in distorted comprehension.

The print-associated conditions which limit reading comprehension include the child's view of reading and the quality of his/her decoding skills. The first requires that the message-getting function of reading be stressed. As Athey (1) has said, "We cannot begin too early to convey to children that reading is a communication system as inherently rational and informative as spoken language."

While the message sending function of reading is crucial, automatic and speeded decoding appears to be equally important (28, 29). Since print distinguishes reading comprehension from oral comprehension, it follows that a breakdown in decoding print would prevent the child from concentrating on meaning. As Calfey and Drum (8) explain:

> . . . to the extent that decoding takes time and demands attention, it will interfere with the efficient operation of short-term verbal memory for understanding the message.

What Should be Taught?

Comprehension is both a process of relating experience to text and a system of language conventions. Consequently, instruction should emphasize both elements.

To relate experience to text, children must learn to use their personal experience when interpreting printed messages. To accomplish this, they should learn to expect that books will match their knowledge of the real world (37); to think about their experiences in anticipation that what they read will correspond to what they know (1); and to paraphrase as a means of relating what they read to their own experience (30). As Calfey and Drum (8) say:

> What needs to be learned is the capability of putting one's self into the position of the message-sender — or the text writer. Using past experience . . . , the child has to create a plausible

context for the text which fleshes out and concretizes the otherwise barren symbols.

While learning to apply their experiences to their reading, children must also learn the system of language cues used to impart meaning in English. This system includes syntactic (or grammatical) English language conventions and semantic (or word meaning) conventions.

The importance of syntactical structure cannot be overstated. Gibbons (18) has said that "The syntax of the sentence may be the best single cue . . . as to what the . . . author intended," a statement supported by much other evidence (1, 15, 20, 34, 36). Research on case grammars describing phrasing (14) and on text grammars describing groups of sentences and paragraphs (21), as well as story grammars (22), also support the importance of syntax in comprehension. In addition, recent evidence contradicts the earlier belief that a child's syntax is complete prior to age six; apparently, learning the syntactical conventions in English is a protracted process. As Athey (1) has said:

> . . . there seems to be a hierarchy of difficulty for processing certain types of syntactic structures which follows the kind of sequence we find in other types of learning, e.g., from the simple to the complex, from the familiar to the unfamiliar, from the concrete to the abstract, from the positive to the negative.

In the concern for the importance of syntax in reading comprehension, the role of semantics has been neglected by comparison. Recently, however, research has reestablished its importance. The work of Blout and Johnson (3) and Sachs (33) indicates that the semantic properties of word meaning may be the basis for memory and recall in reading comprehension while Pearson (27) and Bransford and Franks (6) have also accumulated evidence indicating that semantically-based units of meaning are important in comprehension. As a result, word knowledge, as well as syntax, must be included in comprehension instruction.

How Should Reading Comprehension Be Taught?

To help children achieve the ability to relate experience to text, the research suggests the use of purpose-setting strategies (5, 13, 16, 31). By providing precise

cues regarding what information to look for, children are not only assisted in focusing attention on relevant stimuli within the text but are also aided in bringing their unique experiences (whether perceptions, memories or understandings) to bear on the content (16). Such purpose-setters should, however, be highly specific and should be provided immediately prior to reading (16, 17).

To insure that children learn the syntactic and semantic conventions, research suggests the utilization of a hierarchical, sub-skill approach which provides the child with a "map" to guide him/her to an understanding of the system of language cues (2, 9, 23, 24). Specific and direct teaching of these cues is favored over embedding the skills in more generalized activities such as directed reading lessons (2). As Otto (26) has stated:

Why skills? . . . Because we need them to focus instruction . . . Without them, diagnosis is meaningless and individualization is an empty slogan . . . Without the explicit focus of skills, I'm afraid we abandon too many learners while they are still dependent upon the crutches of "classroom questions," "directed reading activities" and other alternatives to explicit skill development. If we are going to *teach* comprehension, then we must teach the skills of comprehension.

In any case, teachers should do more teaching than was noted in a study of classrooms conducted by Durkin (12), who reports that "not much is done that could be called comprehension instruction."

Implications for Teachers

While knowledge about comprehension is by no means complete, more and more insights are being provided by research and many of the findings can be directly applied by classroom teachers. Consider the following examples:

1. research on the nature of comprehension highlights the need to insure that children possess adequate oral language skills before initiating reading comprehension instruction;

2. the work on conditions which limit comprehension suggests that *language* comprehension, emphasizing the oral forms of the syntactic/semantic cues, should be the preparatory foundation for formal instruction in *reading* comprehension and that, when children do receive instruction in reading comprehension, the materials used should match the pupils' specific experience background and level of decoding ability;

3. the comprehension curriculum should include activities designed both to help children relate their experience to text and to acquaint them with the language conventions used to signal meaning; and

4. instructional techniques should emphasize both purpose-setting activities and direct, specific teaching of the syntactic and semantic cues to meaning.

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