Because thematic statements are too global to aid poor readers in comprehending texts, a series of studies using a common procedure was conducted to determine the relationship between teaching thematic concepts prior to reading and reading comprehension. The thematic organizers used in the studies contained three paragraphs that defined the thematic concept of the passage and related this concept to prior knowledge or experiences of the reader. Following the three paragraphs was a set of statements written on the interpretive level. Students indicated whether they agreed with these statements during or after reading. Subjects of the individual studies were elementary, junior high school, and college students. Pretests were used to place students in experimental and comparison groups. Protocols produced by the students were scored according to the degree to which they preserved the meaning of the original textual units. Results indicated that students in the experimental groups recalled more of the most important idea units and presented more complete propositions, the need for the thematic organizer varied according to the learning needs of the students, and poor readers' use of this strategy varied according to interest and the nature of reading disability. (JL)
Students with reading difficulties are unable often to comprehend thematic concepts of content materials. These students may not understand the concepts presented in the text because of limited background information and experiences. Even if students have knowledge of these concepts, they may not know how or when to activate this knowledge to help their comprehension.

Contributing to students' reading comprehension problems may be the text structure that lacks coherence or unity among the concepts. An inspection of social studies texts, for example, revealed that thematic concepts were often implied or ill-defined. Comprehension is made more difficult by "inconsiderate" texts, or those lacking in cohesion and clarity (Anderson, 1981; Anderson & Armbruster, 1982). Arbitrary facts are often presented without explanation or elaboration, and no relationship between these facts and the theme is illustrated. When poor readers are confronted with such abstract and poorly defined concepts, their understanding of these is so limited that they are unable to relate any prior knowledge to the information of the text.

BACKGROUND

Numerous studies have investigated the use of prereading instructional
strategies which relate the learner's existing knowledge to new information presented in text. Many of these preorganizers reflect Ausubel's (1959) definition of readiness and the purpose of their use is to create a cognitive mind set prior to reading. These preorganizers have taken varied forms (e.g., advance organizers, Ausubel, 1960; structured outlines, Glynn & DiVesta, 1977; structured overviews, Barron, 1969; Earle, 1969; Earle & Barron, 1973; summaries, Reder, 1979; Reder & Anderson, 1980) and have produced variable results. A general finding of all of these studies though, has supported the theory that the degree to which new information is learned is dependent upon the congruency of ideas that is achieved between the reader and author.

One problem that was noted in our work with poor readers was related to the teachers’ selection of information to be presented before reading. If teachers made an effort to develop or expand prior knowledge before reading they were inclined to introduce facts and details and relate these to facts that were already known to students. This type of instruction produced gains in comprehension if recall of facts was the goal. However, this procedure did not help students to relate these facts to each other or to the theme (which was most usually implied) to present an integrated, cohesive message about what they read.

A few studies have investigated the effects of preteaching the theme of a passage to facilitate comprehension. For example, thematic statements presented prior to reading was found to establish a relevant framework for some contexts which led to increased comprehension of implied information (e.g., Adams & Collins, 1977; Bransford & Johnson, 1972; Bransford & McCarrell, 1974; Dooling & Mullett, 1973). In our work with poor readers, however, we found that thematic statements (i.e., titles which reflected the theme of the passage) were too global to aid comprehension. Because students didn’t understand the
concept(s) in the title, they were unable to use this information to set a purpose for reading. The thematic concept or central idea that connects the events, conditions, and/or happenings that occur in a passage, was not understood for many passages unless it was explicitly explained.

THEMATIC ORGANIZER STUDIES

Therefore, we conducted a series of studies to determine the relationship between teaching thematic concepts prior to reading and reading comprehension. Thematic organizers were written to define the major thematic concept of the passage, relate the reader's prior experiences to this concept, and instruct the learner to "actively" use this information prior to and during the reading of social studies materials. It was hypothesized that the information on the thematic organizer would contribute coherence to the text and a unifying framework which would enable students to relate prior knowledge to the thematic concept of the passage (i.e., facilitate interaction between the reader and the text). We questioned whether the use of thematic organizers could aid poor readers' comprehension of an implied concept by making it explicit and relevant to the readers' "schema". We attempted, also, to gain insight into the optimal use of these preorganizers if they were found to encourage increased comprehension of text.

Thematic organizers were defined as an instructional strategy which contained several elements. First, each organizer had three paragraphs which defined the implied thematic concept of the passage and related this concept to prior knowledge and/or experiences of the reader. The concept was defined by presenting its various attributes and non-attributes. Examples of how the concept related to real-life experiences and the ideas in the text were given to further illustrate the meaning of the concept. Following the three paragraphs was a set of statements written on the interpretive level. The students
were instructed to indicate whether they agreed with these statements during and/or after their reading.

Even though these studies analyzed the effects of this strategy with poor readers at various levels (i.e., fourth, fifth, and sixth graders, junior high school students, and college students), a common procedure for each experiment was followed. All students were pretested on targeted concepts. Stratified randomization with replacement by stanine level placed all students in the experimental and comparison groups. Passages were analyzed for structure with idea units rated for structural importance. Scripts of students' recall were divided into idea units. All protocols were scored according to the degree to which they preserved the meaning of the original textual units (inter-rater reliability was .97).

Group and individual data were analyzed to determine effects of the strategy. One way analysis of variance with repeated measures was used to determine whether the groups differed in their ability to recall structurally important ideas, preserve the meaning of the literal ideas, and generate plausible inferences. Protocol analysis (i.e., student interviews at selected pauses during reading) was used to illustrate precise changes in strategies used by individual readers as they followed directions to use information from the thematic organizers.

The findings across the studies indicated a significant difference between experimental and comparison groups on literal and inferential comprehension (Alvarex, 1980; Alvarez, in press; Alvarez & Risko, 1981; Alvarez & Risko, 1982; Risko & Alvarez, 1982a; Risko & Alvarez, 1982b; Risko & Smartt, 1982). The ability to discuss and elaborate upon the implied concept was enhanced by the relevant framework which was presented prior to and during textual reading. Students in the experimental group recalled more of the most important idea units and presented more complete proposition. Preteaching the thematic
concept and relating it to students' prior knowledge facilitated student ability to explain and elaborate upon the central ideas and integrate details with these ideas to produce an integrated representation of the message. Students who did not receive the thematic organizer produced inaccurate retellings, often telling a "story" that was irrelevant to the theme and/or details of the passage.

RESEARCH TO PRACTICE

While the results of these studies indicated statistical differences in favor of the treatment across groups and textual passages, a closer examination of group and individual data clarified implications for using this strategy in a remedial program. Overall, the thematic organizer produces favorable gains in textual comprehension but individuals differ in their use of these. Adjustments in instruction would be necessary to appropriately use this technique with remedial readers.

The need for the thematic organizer varied according to learning needs of students. For example, students with limited prior knowledge or inability to activate this knowledge (as determined by their prereading statements) relied more greatly on information presented on the thematic organizers. These students were observed to go back to the organizers more often as they read and after the reading told how they used the organizer when they didn't understand what they were reading. Students with extremely low comprehension may need to have more than one major concept defined in the thematic organizer. Some of these low comprehenders were able to discuss the theme and related details but were unable to use this information to aid their comprehension of other "unknown" concepts in the same passage.

The need for the thematic organizer also seemed to depend on the structure of the text. When confronted with highly abstract concepts (those that
were not defined in the passage); the students referred to information on the thematic organizer more frequently to understand the text passage. Because of this variability, student use of the organizer varied across passages. Conversely, when concepts were defined more completely in the text, the information on the thematic organizer seemed unnecessary as both groups (experimental and comparison) performed in a similar manner.

It seemed that poor readers' use of this strategy varied according to interest and nature of reading disability. It has already been noted that the extremely low comprehenders seemed to benefit from the thematic organizer (i.e., they performed at a higher level than comparable students in the comparison group), but they still did not perform as well as other students in the experimental group because of their need to have several concepts taught to them in addition to the targeted thematic concept. Also students with a limited ability to express their ideas were more narrow in their elaborations of the theme.

Interest, too, seemed to play a role in the quality of students' responses. When students displayed a high interest in the thematic concept and could relate it to something that was meaningful to them (e.g., the discussion of reform, on one preorganizer, asked students to think about ways to change the rules of their school), they were able to remember important details and generate more plausible inferences about the passage.

Our findings suggest that thematic organizers facilitate and expand conceptual learning of expository texts. While this strategy may be appropriate for remedial readers, it is seen as one of several alternatives teachers could choose. Use of this strategy, as with the selection of any other, depends on the individual needs of the students.
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