
4-1-1988

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Recommended Citation

Hahn, A. L. (1988). Reading Research: Can It Improve Comprehension Instruction?. *Reading Horizons: A Journal of Literacy and Language Arts*, 28 (3). Retrieved from https://scholarworks.wmich.edu/reading_horizons/vol28/iss3/6

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READING RESEARCH: CAN IT IMPROVE COMPREHENSION INSTRUCTION?

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Vygotsky (1978) asserts that a child's learning is shaped by social processes. According to this view, learning occurs through the social interaction of an expert (adult, teacher) and a novice (child). In the social milieu of the classroom, this interaction takes the form of the teacher (expert) explaining and modeling the thought processes (what, why, how, when, where) necessary for skill acquisition. Feuerstein (1979) also argues that cognitive growth is enhanced when an adult (the proficient learner) establishes an instructional environment that fosters learning.

A second factor that appears to affect learning is the idea of "putting students in charge" of their own learning. Smith (1982) contends that teachers seem unwilling to share planning, monitoring, and evaluating roles with their students. Consequently, when instruction ceases, so does the use of the trained skill (Belmont and Butterfield, 1977; Paris and Cross, 1983). To ensure durability of learning, instruction should progress from teacher-controlled to student-controlled (Vygotsky, 1978; Wertsch, 1979). In other words, instruction begins with the teacher explaining the skill, to the teacher monitoring the students' use of the skill, to the teacher only providing assistance when necessary. This instructional sequence should foster enhanced learning performance.

Do these theories of learning play a role in current reading comprehension instruction? Durkin (1978-79; 1981) suggests that the general focus of comprehension instruction given by teachers and scripted in basal-reader manuals, can be characterized by the following scenario: a skill is mentioned, workbook pages and/or dittoes are assigned, and students' performance is assessed. According to this scenario, students are told the "what" (e.g., today we are

going to learn about main ideas), but rarely are they told the "why," "how," "where" and "when" (Roehler and Duffy, 1984). This mentioning and assigning approach to comprehension instruction seems to assume that if students practice a skill often enough, insightful learning will occur. Lack of direct explanation (e.g., what, why, how) by the teacher may impede skill learning and transfer because students must infer on their own the causal relationship between skill use and improved comprehension.

Are teachers willing to relinquish responsibility for learning to their students? Research findings are mixed (Garner, in press; Palincsar and Brown, 1982). Belmont and Butterfield (1977) claim that children "frequently revert to their immature strategies when no longer explicitly constrained to play the instructor's programs" (p. 465). If the goal of instruction is to have students engage in deliberate, planful, conscious learning, then students must ultimately assume responsibility for their own learning.

The purpose of this article is to review the research supporting these two instructional models, and to suggest implications for classroom reading instruction.

Teacher Explanation vs. Teacher Mentioning

Paris and his colleagues (Paris, Lipson and Wixson, 1983; Paris, Oka and DeBritto, 1983) assert that any type of instruction should provide students with three kinds of knowledge; (a) declarative--knowing that a skill works; (b) procedural--knowing how to perform the skill; and (c) conditional--knowing when and why a skill should be used to accomplish different purposes (Paris, Lipson and Wixson, 1983, pp. 303-304). Paris contends that of the three, conditional knowledge is the most important because it provides the metacognitive insight necessary for skill transfer. Therefore, conditional knowledge should help students to become less bureaucratic (skill is used in only one learning context) and more democratic (a skill is used in many learning contexts) in their learning. These three knowledge categories have served as a framework for current content analysis and instructional research on direct explanation for skill learning provided by teachers and basal reading manuals.

Since commercial materials exert a powerful influence

upon classroom reading instruction (Shannon, 1983), researchers are analyzing the instructional directives supplied in these materials for instances of direct explanation (e.g., when, why, etc.). Based on the direct explanation model, Johnston and Byrd (1983) discuss five components that should be present in any skill instruction, if the instruction is to foster comprehension. The five components are (a) structure, (b) goal-directedness, (c) a focus on the causal relationship between skill use and improved comprehension, (d) an emphasis on the learners' control of the strategy, and (e) self-monitoring of performance (p. 142). Johnston and Byrd contend that if these five components are present in instruction, students should better (a) understand the process of acquiring a skill - the "how," (b) realize that the skill enhances comprehension - the "why" and the "when," (c) assume responsibility for their own comprehension - the "where," and (d) realize when their comprehension begins to break down. They analyzed two current basal-reading programs (grades three and five) for instances of these five components. From their analysis they concluded that these instructional components were not evident in the materials they surveyed.

Hare and Milligan (1984) focused their content analysis on one specific comprehension skill. They analyzed four well-known basal reading series (grades one through six) for their direct explanation concerning main-idea instruction. Their analysis revealed that all of the series lacked specific directives for identifying the main idea. In particular, the issue of how to determine important text information seemed to be avoided (cf. Winograd, 1984). If the materials teachers use are not providing direct explanation, can teachers be trained to use this instructional strategy? If so, what effect does this strategy have on the learning process? Several researchers (Raphael, 1984; Roehler and Duffy, 1984; Roehler, Duffy and Meloth, 1984) are investigating these questions.

Roehler and Duffy (1984) state that direct explanation makes explicit (a) the mental processing required for skill learning, (b) the purpose for learning and using the skill, and (c) the strategy that enhances the delivery of skill instruction. According to Roehler and Duffy, the key to direct explanation is the teacher modeling the thinking

needed to perform the skill. Their direct explanation model also suggests a need to restructure the typical basal-reading lesson sequence. Skills are taught and practiced prior to the reading of a basal story, applied during the actual reading of the story, and then used in other various reading situations. This instructional sequence highlights for the students the utility of their skill learning.

Roehler and her colleagues (Roehler & Duffy, 1984; Roehler, Duffy & Meloth, 1984) investigated these assumptions by training elementary teachers to use direct explanation as the basis for their skill instruction. Teacher's ability to use this strategy was documented using audiotapes, field notes, and student interviews. The effect of direct explanation on students' ability to understand and use the instructed skill was assessed by asking a sample of low-ability readers these three questions: (a) what were your learning to do today? (b) how do you do that? and (c) why is it important? Results of their observations and interviews suggest that direct explanation fosters a greater student awareness for skill learning and nudges the teacher to model and practice the skill before the students apply it to the basal story.

In contrast to Roehler et al's research, Raphael (1984) investigated what effect direct explanation would have on a specific comprehension strategy. Fourth-grade teachers were trained how to explain/teach three types of question-answer relationships: (a) Right there - question and answer come from the same sentence in a text; (b) Think and Search - one sentence is used to construct the question but the answer is located in a different sentence or section of the text; and (c) On My Own - the text is used to develop the question, but the answer comes from the reader's own knowledge base. Teaching sessions were videotaped and students' question-answering performance on two posttests was analyzed. Although direct explanation did not enhance cognitive performance (correct answers to questions), it did enhance meta-cognitive performance (knowledge of where the answers could be found). Raphael speculated that direct explanation did not affect cognitive performance because of the intense quantity of question-answering drill and practice given during the training sessions. However, she did find evidence to suggest a correlation between the quality of a teacher's

direct explanation and a student's ability to discriminate among various information sources.

Review of other research studies (see Pearson & Gallagher, 1984) further support the educational benefits of direct explanation. It seems that this instructional strategy not only affects basic research but also holds promise for improving comprehension instruction and student achievement.

Student Control Versus Teacher Control

Implied in direct explanation is the idea of socialized, mediated learning (Vygotsky, 1978; Wertsch, 1979). This idea suggests that learning first occurs through some type of social interaction before it becomes internalized or student-controlled. For example, during initial skill instruction, the teacher models, explains, supplies information, questions and corrects. This part of instruction is mainly teacher-controlled with provision for teacher-student interaction. Once students understand the mental processing for a skill, instructional assistance should be withdrawn to ensure ownership of the newly learned skill. Students (with minimal teacher prompting) now become responsible for applying the skill in a variety of learning contexts. At this point, students now engage in deliberate, planful, conscious activity to ensure efficient, independent learning. The questions that need to be answered are these: are teachers willing to release responsibility for learning, and if so, what effect does this have on student achievement?

Garner (in press) supplied eight teachers who were tutoring in a university's summer reading clinic with three instructional scripts. These scripts progressed from total teacher control to total student control of the learning. The third script did allow for teacher assistance in that they could provide students with feedback (e.g., I knew you could find the answer) and general strategy comments (e.g., what do you think you should do next?). Analysis of the audiotapes of the teachers' lessons showed that only three of the eight teachers were able to release responsibility for learning to their students. Garner speculated that this reluctance to release instructional control may keep students instructionally dependent, thereby hindering efficient learning.

Palincsar and Brown (1983) using a reciprocal teaching technique, taught remedial junior-high students strategies for improving their comprehension of text. All of the strategies were extensively modeled by the researchers before the students assumed the role of the teacher. The four strategies were: (a) summarize each paragraph in one sentence, (b) clarify any unclear information, (c) ask questions a teacher might ask about each paragraph, and (d) predict what the next paragraph will be about. When the students assumed the role of the teacher, the researchers always provided feedback concerning the quality of the students' use of the strategies. At the conclusion of each teaching session, the students independently read an expository passage and answered ten comprehension questions. These assessments were used to track students' improvement from the strategy training. To determine if this training transferred to the actual classroom situation, students also read passages from their social studies texts (during their social studies class) and responded to questions. Data obtained from this study demonstrated improved comprehension performance not only in the researcher-led training sessions (students progressed from 40% to 80% accuracy in answering questions) but also to some extent in the actual classroom setting. This study illustrates the benefits of teacher modeling and the release of responsibility for learning.

The true test for any theory is its applicability to the actual classroom situation. As part of a research project (Graves and Hansen, 1983; Hansen, 1984), Hansen observed a first grade classroom where the students were responsible for learning the processes required for beginning reading and writing. At the start of the school year, students were put in charge of their own learning. In this self-learning environment, a variety of people (peers, parents) supported these first graders' learning endeavors. Since teacher talk was minimal in this classroom, children relied on each other for answers to their questions about the reading/writing process. The teacher always attended closely to classroom discussions in order to structure necessary instruction. This first grade classroom epitomized independent student learning.

Restructuring Instruction

The previous research holds promise for enhancing classroom skill instruction. Direct explanation focuses instruction on the process necessary for acquiring a skill as well as highlighting its relevancy and wide applicability. Using a think aloud procedure, the teacher would explain how s/he acquires a skill and then models how it is applied to various learning contexts. Following this explanation and modeling, the students would practice the skill and receive corrective feedback to better ensure control of the learned skill. When students have mastered the skill, the teacher would only remind them to use it when appropriate. This instructional sequence gradually transfers responsibility for learning from the teacher to the students.

Suppose the skill to be taught is "following the sequence" of an expository text. Using the "direct explanation" model, the following instructional script would be generated:

Today we are going to learn that sometimes information that we read in our science, social studies, and health textbooks is written in a certain order. This ordering of information is called a text's sequence. (what) It is important to follow a text's sequence because it helps the reader better understand and organize what is read (why). How does a person know if information in a text follows a certain sequence? Suppose I am reading how to perform an experiment in my science textbook. As I am reading, I notice words like first, second, third, next, last, etc. These words signal that this information is following a specific sequence. Therefore, if I am supposed to perform the experiment, I know I should follow the steps in their proper sequence. If I don't, the experiment will fail. Suppose I am reading in my social studies textbook, "how a bill becomes a law." If I notice the signal words, first, second, etc., I again know this information is following a specific sequence. Therefore, as I read, I try to remember this procedure in its proper sequence. Rehearsing or saying the information to myself, helps me remember this sequence. By doing this, I am better able to discuss this information in class or on a test (how). Whenever I read in school,

at home, or study for a test, I follow text and remember a text's sequence (when and where).

Following this explanation, the teacher would model how s/he follows and rehearses information according to the text's stated sequence. Finally, the students would practice this skill using a variety of texts. Teacher control of their learning would gradually be relinquished.

One drawback to this instructional approach is that the teacher has the responsibility for developing the instructional script since process explanation is often sparse in commercial learning materials (Durkin, 1981; Hare and Milligan, 1984). Possible benefits for this expenditure of time could be more informed learning and independent use of the trained skill. A rationale for considering this approach is that it could provide a first step in resolving the "mentioning" versus the "actual teaching" dilemma. Only the classroom teacher can prove or disprove this instructional assumption!

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