A study examined the content of eight 1989 editions of the major basal reading series—those of Harcourt Brace Jovanovich; D.C. Heath and Co.; Holt Rinehart and Winston; Houghton Mifflin; Macmillan; McGraw-Hill; Scott, Foresman and Co.; and Silver Burdett and Ginn. The study determined how and the extent to which lessons and activities that promote metacognitive behaviors necessary for independent strategic reading were included in the second-, fourth-, and sixth-grade levels of these series. Data were derived from page-by-page inspections of the basal reading series. Results indicated that basal authors have made considerable efforts to incorporate activities and lessons that promote or foster strategic reading through comprehension skill instruction, through explicit strategy instruction, and in the context of directed reading activities that accompany reading selections. (Four tables of data are included; 32 references are attached.) (Author/RS)
Metacognitive Theory Applied: Strategic Reading Instruction in the Current Generation of Basal Readers

Maribeth Cassidy Schmitt
DePauw University

Carol J. Hopkins
Purdue University

Running Head: Strategic Reading Instruction
Abstract

This study examines the content of eight of the current generation of basal reading series to determine how and the extent to which lessons and activities that promote metacomprehension behaviors necessary for independent strategic reading were included in the second-, fourth-, and sixth-grade levels of these series. The data derived from page-by-page inspections of current programs suggest that basal authors have made considerable efforts to incorporate activities and lessons that promote or foster strategic reading through comprehension skill instruction, through explicit strategy instruction, and in the context of directed reading activities that accompany reading selections.
Metacognitive Theory Applied: Strategic Reading Instruction in the Current Generation of Basal Readers

When Durkin evaluated the comprehension instructional content of five major basal reading programs in 1981, her findings presented a bleak picture of comprehension instruction and there was a general call for overall reform and improvement in the quality of basal reading programs (Durkin, 1981). This same recommendation was echoed in subsequent studies of the instructional content of basals (Bacharach, 1988; Meyer, Greer, & Grummey, 1987; Morrow, 1982; Winograd & Brennan, 1983), content analyses of basal selections (Britton & Lumpkin, 1983; Garcia & Sadowski, 1986; Hitchcock & Tompkins, 1987; Hopkins, 1982; Serra & Lamb, 1984; Sippola, 1982; Valeri & Smith, 1983), and studies of the way and purpose for which basals were used (Goodman, Shannon, Freeman & Murphy, 1988).

Since the late 1970s and early 1980s, much has been learned about the reading process with respect to the characteristics of the learners, the characteristics of the materials, and the interactions between them. For example, seminal research on schema theory (e.g., Anderson, 1977; Rumelhart, 1980), story grammars (e.g., Mandler & Johnson, 1977; Stein, 1979), and metacognition (e.g., Baker, 1979; Brown, 1978) have contributed to our understanding of
Strategic Reading Instruction

Because of this new perspective on the processes of literacy, much of the research on comprehension has focused on the importance of developing strategic, independent readers; that is, those who know when, why, and how to use strategies to facilitate comprehension (Cross & Paris, 1988; Dole, Duffy, Roehler, & Pearson, 1991; Paris, 1983; Paris, Cross, & Lipson, 1984; Paris, Wasik, & Turner, 1990; Pearson & Fielding, 1991; Pressley, 1989; Winograd & Paris, 1989). However, despite the success of this instructional research, Schmitt and Baumann (1990) found that metacomprehension was not being fostered in elementary classrooms because, seemingly, teachers were taking the responsibility for comprehension monitoring themselves rather than promoting these skills on the part of their students. They suggested that publishers need to incorporate instruction that fosters the development of these skills in their basal reader programs.

In 1989, most basal reader publishers released new programs or major revisions of their series. As they prepared new editions, basal authors had the opportunity to translate research about the reading process in order to generate improved basals, grounded in theory, and to address past criticisms related to their content. Because the 1989 basal programs held the promise of differing significantly from earlier programs with respect to practical applications of
reading research, we were interested in examining how the metacognitive research had been translated into practice in basal programs. Thus, it was the purpose of this study to examine the content of the 1989 editions of major basal reading programs to determine how and the extent to which lessons and activities which promote metacomprehension behaviors necessary for independent strategic reading were included in the series.

Method

Materials

The 1989 editions of eight basal reading programs were analyzed: Harcourt Brace Jovanovich; D.C. Heath and Company; Holt Rinehart and Winston; Houghton Mifflin; Macmillan; McGraw-Hill; Scott, Foresman and Company; and Silver Burdett and Ginn. The contents of the books, which included skill lessons, strategy lessons, and directed reading activities, of second-, fourth- and sixth-grade books were examined for each series, resulting in an analysis of 32 grade-level manuals in all.

We made the decision to examine three grade levels in depth rather than to sample randomly from all grade levels of the basal series because of the diverse and sporadic treatment of metacomprehension strategies within and across series. We were concerned that random sampling offered the potential for us to
Strategic Reading Instruction

misrepresent if, how, and the extent to which strategic reading is incorporated into current basal reading series.

Procedures

While there may be several methods for fostering strategic reading, instructional studies suggest there are three which have been successful in doing so and they include: (a) comprehension *skills* can be taught as *strategies* for understanding texts and for use in repairing breakdowns in comprehension (e.g., Duffy, Roehler, Sivan, Rackliffe, Book, Meloth, Vavrus, Wesselman, Putnam, & Bassiri, 1987); (b) metacomprehension strategies which enhance planning for and monitoring of comprehension can be taught explicitly (e.g., Paris, Cross, & Lipson, 1984); and (c) activities which promote metacomprehension can be included in the directed reading activities that accompany basal selections (e.g., Schmitt, 1988). The following sections describe the procedures we followed to determine the extent to which strategic reading was fostered in these ways in the 1989 basal readers.

**Comprehension skill instruction.** All second-, fourth-, and sixth-grade lessons in which, according to the publishers, comprehension skills were *introduced* for the first time in that particular book of each basal series were included in this part of our analysis. We relied on the publishers’ designations of comprehension skills (i.e., if publishers identified a lesson as a comprehension
skill lesson, we included it). This process resulted in the identification of approximately 300 introductory comprehension skills lessons.

We then examined these lessons to determine whether they included the conditional knowledge that students would need to apply the skills as strategies for comprehension. Our judgment was based on traditional descriptions of conditional knowledge reported in the literature (e.g., Baumann & Schmitt, 1986; Duffy et al., 1987; Paris, Cross, & Lipson, 1984). We asked the question: Does the lesson explicate why the skill would enhance reader understanding and when it would be most appropriate for readers to apply the skill? For example, conditional knowledge for a comprehension lesson on differentiating between facts and opinions should include information to the effect that readers should be able to make this distinction in order to recognize whether or not the information they are reading is simply the author's opinion or if it is an established fact since it is not wise to accept another's opinion as fact. Students should also be told of the different types of text which are likely to include facts (e.g., science texts) and opinions (e.g., newspaper editorials).

If a comprehension skill lesson included information on only what the skill was and how to use it, it was not counted in this category. Based on these criteria, we assigned a "yes" or "no" rating to each comprehension lesson. These findings are reported as percentages of lessons containing conditional knowledge.
across series and grade levels. To establish interrater reliability, 10 skill lessons were independently evaluated by the two researchers who achieved 96% agreement in the identification of comprehension skill lessons that included conditional knowledge.

**Metacomprehension strategy instruction.** We conducted a page-by-page inspection of each of the three levels of the eight series to determine whether the series provided explicit instruction for using strategies generally considered useful in planning for and monitoring comprehension (Palincsar & Brown, 1984; Paris, Cross, & Lipson, 1984). These include activating background knowledge, previewing, predicting, purpose setting, self-questioning, noting text characteristics, and summarizing. Additional metacomprehension strategies included in the basal series (e.g., recognizing author’s purposes, rating understanding) were included in the analyses if they met the criteria of facilitating comprehension planning and monitoring.

Once the strategy lessons were identified, we examined each lesson to determine if the strategy were being taught as a way to plan for and monitor comprehension. The results were reported as “included” or not included” for each strategy across series and grade levels. For example, to meet these criteria, a lesson on summarizing would need to include information that summarizing can be used as a strategy for checking on comprehension during or after reading. To
determine interrater scoring reliability, 10 strategy lessons were evaluated independently by the two researchers who attained a 96% level of agreement for the identification of metacomprehension instructional lessons.

**Directed reading activities.** The components of lessons that call for teacher-directed activities before, during, and after reading a basal selection (DRA's) were analyzed to determine whether they included opportunities for readers to engage in behaviors generally considered to promote metacomprehension in this setting. These include activating background knowledge, previewing, noting text characteristics, predicting, setting purposes, generating self-questions, summarizing, and checking on purposes (Schmitt, 1988; Schmitt & Baumann, 1986, 1990). Thus, we were looking for the occurrence of these eight metacognitive behaviors as described in Table 1 somewhere within the guided reading suggestions for the 240 basal reading lessons we analyzed after randomly selecting 10 selections from each of the three levels of each series. Once a behavior was identified, we evaluated it to determine if students were being encouraged to participate actively in the lesson such that metacomprehension was being fostered. For example, to be counted as a behavior that promotes metacomprehension in the setting purposes category, students must generate the purpose for reading rather than reading for a purpose set by the teacher. Similarly, the checking purpose behavior must be tied to a
student-generated purpose. The results of this analysis were reported as “included” or “not included” for each metacognitive activity across series and grade levels. Once again, we independently evaluated 10 lessons to establish interrater reliability, this time reading 98% agreement in the identification of directed reading activities that promote metacomprehension.

Results

There are numerous ways to approach and interpret the data that emerged from these analyses. We have chosen to present and discuss our findings with respect to the average treatment of the variables (i.e., categories of behaviors) within each of the three criteria that comprise our description of the ways of incorporating metacomprehension into basal reading instruction. Tables 2-4 include frequency data for the three analyses we conducted. Results are presented relative to the compiled data across categories within each criteria for each of the eight basal series. It was not our intent to compare basal series or single out those which excel or are weak in specific areas, specifically because the various authors selected different methods for implementing metacognitive
theory. Essentially, the tables serve to demonstrate the variability across series with respect to the three criteria and their respective categories. Each criterion will be discussed separately and general conclusions will be drawn about the treatment of strategic reading instruction in the 1989 basal series.

Comprehension Skill Instruction

Table 2 illustrates that lessons in each of the eight basal series included the conditional knowledge that provided students with information about the intentional selection of appropriate strategies for comprehension tasks, but with wide variability across basal series and even across grade levels within individual series. Further, our inspection of the lesson contents revealed considerable differences in the quality of the lessons themselves.

Overall, 72% of all comprehension skill lessons included conditional knowledge. More specifically, conditional knowledge was included in 69% (SD=23.5) of all second-grade comprehension skill lessons, 72% (SD=23.9) of all fourth-grade comprehension skill lessons, and 76% (SD=24.3) of all sixth-grade comprehension skill lessons.

---

Insert Table 2 about here

---

Although a lesson was counted as including conditional knowledge if
information about the relevance of the strategy and the appropriate time to use it could be discerned. It should be noted that there were considerable qualitative differences in the way conditional knowledge was included. For instance, one of the weaker lessons included the statement:

Point out that writers sometimes use comparison and contrast to help their readers understand how things are alike or different....Tell students to ask themselves questions when they read to see whether comparisons and contrasts are being made. Remind them that noting comparisons and contrasts will help them understand what they read.

The following lesson excerpt illustrates a stronger lesson in terms of the way conditional knowledge is addressed:

Tell students they will learn to make a summary....Tell them that knowing how to summarize helps readers figure out the most important points of a story and identify the main ideas and important details in a nonfiction piece....Review summarizing, and ask students to give reasons for summarizing.”

**Metacomprehension Strategy Instruction**

We identified a total of 250 metacomprehension strategy lessons in the basal readers we examined. Table 3 illustrates the number of metacomprehension strategy lessons per grade level in the eight series for each of the seven strategies we identified.
In addition to the wide variability in the number of strategy lessons across and within grade levels and basal series, there was also considerable variability across strategies. For instance, all series include strategy lessons for prediction and summarization, but not at all grade levels; five series provide no strategy instruction related to activating background knowledge or setting purposes; four series provide no strategy lessons for previewing or noting text characteristics; and three series provide no strategy lessons for generating self-questions.

Some strategies were included more often than others, regardless of the grade level. Of the lessons we examined, prediction, the most frequently occurring type of strategy lesson, accounted for 34% of the total number of strategy lessons; 29% of the strategy lessons dealt with noting text characteristics, 20% with summarizing, 8% with generating self-questions, 4% with previewing, 3% with setting purposes, and 2% with activating background knowledge. Other strategies that emerged in the analyses such as determining an author's purpose, organizing information, paraphrasing, determining an author's point of view, and visualizing occurred too infrequently to be included in Table 3, but are indicative of publishers' attempts to provide students with strategies for independent
reading.

**Directed Reading Activities**

The data showing the frequency of occurrence of eight metacomprehension behaviors included in the directed reading activities of all basal series across each of the three grade levels are presented in Table 4. Once again there were substantial differences within and across grade levels with respect to the frequency of instruction related to developing the identified metacomprehension behaviors. Other comprehension behaviors (e.g., visualizing) emerged in this analysis as well; however, they occurred to infrequently to be displayed in a separate table.

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Mean Percentage</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Activate background knowledge</td>
<td>99% (SD=4.5)</td>
<td></td>
</tr>
<tr>
<td>Preview</td>
<td>96% (SD=7.1)</td>
<td></td>
</tr>
<tr>
<td>Set purpose</td>
<td>85% (SD=21)</td>
<td></td>
</tr>
<tr>
<td>Check purpose</td>
<td>79% (SD=29.7)</td>
<td></td>
</tr>
<tr>
<td>Predict</td>
<td>75% (SD=31.6)</td>
<td></td>
</tr>
<tr>
<td>Generate self-questions</td>
<td>33% (SD=26.7)</td>
<td></td>
</tr>
<tr>
<td>Note text characteristics</td>
<td>28% (SD=19.1)</td>
<td></td>
</tr>
<tr>
<td>Summarize</td>
<td>24% (SD=29.4)</td>
<td></td>
</tr>
</tbody>
</table>

The following mean percentages reflect how often these metacomprehension behaviors were included in directed reading lessons across all series: activate background knowledge, 99% (SD=4.5); preview, 96% (SD=7.1); set purpose, 85% (SD=21); check purpose, 79% (SD=29.7); predict, 75% (SD=31.6); generate self-questions, 33% (SD=26.7); note text characteristics, 28% (SD=19.1); summarize, 24% (SD=29.4).

Additional interpretation of these data yields information about how the
Strategic Reading Instruction

different basal series address these metacomprehension behaviors overall. For instance, several of these behaviors such as activating background knowledge, previewing, predicting, setting purpose, and checking purpose are incorporated into directed reading activities with much regularity. It can also be noted that: (a) seven of the series have students activate background knowledge 100% of the time and the remaining ones do so an average of 90% of the time; (b) four of the series encourage students to preview the text 100% of the time while the other four series do so an average of 87% of the time; (c) four series have students set a purpose for reading 100% of the time, three an average of 73% of the time, and one an average of 40% of the time; (d) four series have the students check the purpose they set for reading 100% of the time, two do so an average of 70% of the time; one 57% of the time, and the remaining one an average of 27% of the time; and (e) three of the series have students predict the content of the selection 100% of the time, another three an average of 77% of the time, and two an average of 33% of the time.

On the other hand, the metacomprehension behaviors of generating self-questions, noting text characteristics, and summarizing are not dealt with on a regular basis in any series. Note that: (a) two series have students generate self-questions an average of 40% of the time while the remaining six series do so less than 35% of the time; (b) two of the series have students note text characteristics
43% of the time and the remaining six do so less than 23% of the time; and (c) one series has students summarize parts of or an entire selection 87% of the time, five series do so less than 60% of the time, and two series do not address summarizing at all during a directed reading lesson.

Just as there were qualitative differences with respect to the manner in which different series included conditional knowledge, the same was found with respect to the way in which the various series incorporated metacomprehension behaviors in the directed reading activities. For example, for a lesson designed to have students make predictions after previewing a selection, the activity “Have students discuss ways in which [the character] could organize an effective search for her sister. Explain to students that as they read, they will find out how and where [the character] decided to search.” was judged to be much weaker than the following activity also designed for the same purpose: “...ask what specific information they [the students] predict will be contained in the selection.”

Discussion and Conclusions

All research that depends on judgments rather than established facts must be considered in light of the limitations associated with such research and this study is no exception. Another limitation is the fact that only three grade levels were evaluated for each of the eight series. Certainly more conclusive date could
be derived from an inspection of all pages of all books at the remaining three grade levels. These limitations should be considered as conclusions are drawn from this study.

The data derived from the content analysis of the eight basal reading programs suggest that basal authors have made considerable efforts to incorporate activities and lessons that promote or foster metacomprehension abilities. Metacognitive strategies are addressed in basal series through comprehension skill instruction, through explicit strategy instruction, and in the context of directed reading activities that accompany basal selections. It is not our intent to suggest that all series need to teach strategic reading the same way, not that one way is better or preferred, nor that all series need to address strategic reading in all three ways. When one inspects Tables 2-4, it does seem clear that some means of providing strategic reading instruction are more popular than others. Something that is not apparent from the tables, but which struck us as we conducted our analyses, are the differences in format for presenting strategic reading activities. Some publishers very clearly label lessons as strategy lessons so that the reader and teacher are made aware that they are intentionally applying certain strategies, whereas sometimes the strategy instruction is more subtle and no direct mention of monitoring one’s own comprehension is made. This is more likely to be the case in directed reading components.
Strategic Reading Instruction

activities.

It appears that, in comprehension skill lessons, students generally are being provided with the knowledge necessary to choose specific skills as strategies in appropriate situations. This aspect of the new reading programs represents the most significant advance toward promoting strategic reading.

Aside from teaching students to predict outcomes, which occurred an average of 3.4 time per grade-level book, explicit metacomprehension strategy instruction is not that prevalent in the current basal programs. Our data suggest that while many of these strategies are being included in directed reading activities, comparatively, they are not being pulled out and taught explicitly as separate strategy lessons as often according to our descriptions of this method. This sort of emphasis may not be necessary, or publishers may be addressing the skills in another way. It would seem that some method of instruction might be particularly helpful for those students who, for whatever reason, do not develop these strategies intuitively or by generalizing them from directed reading activities.

Within the context of the directed reading activities, there are numerous opportunities for students to engage in behaviors generally considered to promote metacomprehension. On a regular basis, students are being encouraged to activate background knowledge, preview the selection, predict the content, and set
Strategic Reading Instruction

and check on their purposes for reading. The other three strategies of summarizing, self-questioning, and noting text characteristics are not dealt with as consistently across series. Because summarizing and self-questioning strategies represent the most practical monitoring strategies for both narrative and expository text, they may warrant more extensive treatment in subsequent updates and revisions.

In sum, to the extent that basal readers are used in American schools, and to the extent that teachers follow the suggestions and method included in them, our data suggest that students are being exposed to instruction that will foster metacomprehension. There is a wealth of research indicating that explicit instruction or participation in metacomprehension activities can increase independence and promote strategic reading abilities. Whether or not students’ exposure to the metacognitive tasks in the new series results in increased strategic reading remains to be seen, but at least the new generation of basal readers has included opportunities that appear promising.
References


Table 1
Metacognitive Behaviors During Guided Reading

Predict
Students are encouraged to hypothesize about the content of a selection either before or during guided reading of it. Both open-ended and specific predictive questions are counted.

Preview
Students are encouraged to look over the title, illustrations, etc., for the purpose of predicting, activating background knowledge, generating questions, or setting purposes.

Activate background knowledge
Students are encouraged to discuss things they already know about the content of a selection or they are guided in developing background knowledge.

Set purpose
Students are encouraged to set purposes based on the predictions and questions generated from the preview so that they are reading actively with their own purposes in mind.
Self-question
Students are encouraged to generate questions about the content of the selection either before or during the guided reading, using the title, the illustrations, or the text as the impetus.

Note text characteristics
Students are encouraged to pay attention to the characteristics of the text that would help them with expectations about the content of the selections.

Summarize
Students are encouraged to summarize either during the guided reading or at the end of the selection in order to monitor comprehension. Students must generate the summary, not answer a list of teacher- or text-generated questions that focus on the selection’s main points.

Check purpose
Students are encouraged to return to the purpose they set before they began reading the selection to see if it has been met. This must be related to a student-generated purpose, not a teacher-generated one.
Table 2

Conditional knowledge in comprehension skill lessons
Strategic Reading Instruction

Table 3

Metacomprehension strategy instruction

Preview

Predict

Note Text Characteristics
Strategic Reading Instruction

Table 3 (con’t)

Metacomprehension strategy instruction

Activate Background Knowledge

Summarize

Self Question

Set Purpose
Table 4

Metacomprehension behaviors in directed reading activities

<table>
<thead>
<tr>
<th>Preview</th>
<th>Activate Background Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image1.png" alt="Graph" /></td>
<td><img src="image2.png" alt="Graph" /></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Predict</th>
<th>Self Question</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image3.png" alt="Graph" /></td>
<td><img src="image4.png" alt="Graph" /></td>
</tr>
</tbody>
</table>

Legend:
- Grade 2
- Grade 4
- Grade 6
Strategic Reading Instruction

Table 4 (con’t)

Metacomprehension behaviors in directed reading activities

Set Purpose

Check Purpose

Summarize

Note Text Characteristics