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The Impact of Metacognitive Strategies on Reading Comprehension in an Early Literacy Workshop

Abstract

This preliminary study investigates metacognitive strategies displayed by young children and their impact on increasing reading comprehension during their involvement in a reading intervention programme from February to July 2004. The purpose of this study is (a) to explore the nature of existing metacognitive experience in the second, third and fourth grade classrooms and (b) to determine whether children who had participated in an early literacy workshop demonstrate reading comprehension achievement. To document and reflect metacognitive awareness of reading strategies students engaged in a literacy workshop. The teacher in this workshop provides instrumental support to student's awareness and regulation comprehension strategies before, during and after reading. This metacognitive intervention was observed and videotaped by the research assistant and compared with reading achievement.

Key words: *metacognitive strategies, reading comprehension, young children, literacy workshop.*

Background

Skilled, self-regulated readers are those who set realistic goals, select effective reading strategies, monitor their understanding of the text, and evaluate progress toward their goals. The reader's level of comprehension depends not only on their beliefs about their efficacy to read, the value they place on the reading task, and their motivation to read and learn, but also on their metacognitive skills. Metacog-

niton as a form of cognition, a true reflection on thought, involves both knowledge of cognitive process and a conscious control and monitoring of that processing. Metacognitive knowledge reflects the awareness of the variables of self, task and strategy. Brown (in Phillips, 1992) identified reading strategies as instances of metacognition and described metacomprehension as “any deliberate planful control of activities that give birth to comprehension”.

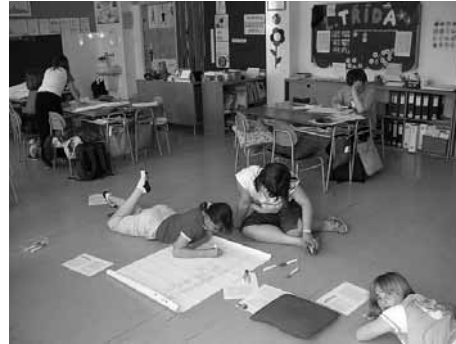
Research has provided a wealth of information about the kind of instruction that is needed to help students to become good readers, how good and poor readers differ and about what good readers do as they read. Work with gifted children has also shown that they have a greater metacognitive attitude. Expert readers are active readers who use a text and their own knowledge to build a model of meaning, and then constantly revise that model as new information becomes available. They consider the author’s intentions and style, when judging a text’s validity, and determine the purposes that the text can serve in their lives – how it can increase their knowledge, deepen their enjoyment, and expand their ways of examining and communicating with the world. This allows the reader to move beyond the surface of the text. Readers with metacognitive awareness have conscious control of strategy use; they are able to make decisions about which strategies to use and above all when to use them according to their purpose, context and the characteristics of the genre. It appears that metacognitive comprehension skills can be taught and learned. Teachers can stimulate metacognition in ways that support improvement in the student’s comprehension process. This article presents the impact of metacognitive strategies on reading comprehension improvement in an early literacy workshop. It discusses some instructional techniques of reading comprehension strategies useful in helping students improve as “thinkers about thinking” in reading.

There is a tension in the theoretical concept of metacognition arising from the description of metacognition as late developing, involving highly abstract thought-processing, when many researchers have described children as young as 4 displaying metacognitive processing. Flavell’s recent work shows that whilst age is a determining factor for the degree of metacognitive knowledge, young children do have some knowledge of thought process (Larkin, 2002). However, it can be very difficult to analyse metacognitive experience, because of an internal state experienced by the subject, often is not verbalized, displayed in non-verbal behaviour.

and evaluate those goals. Thus, students chose both the process and product and shared in reflection feelings about the story episode.



Free reading

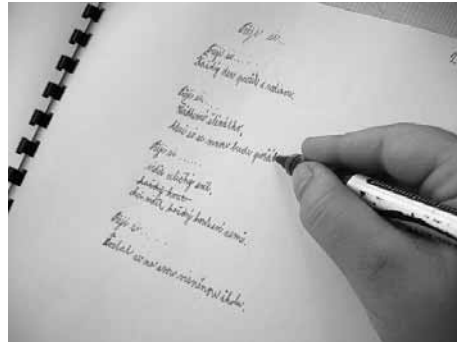


Strategy practice

They were given the opportunity to reflect upon their reading experiences by responding in their journals to a specific prompt in **creative writing**. The students shared their responses orally by participating in the “hot seat”. Small groups took turns sitting in the hot seat by forming a circle with their journals in hand to discuss their written reflection. Also they could perform the portfolio checklists to assess their progress after the reading process.



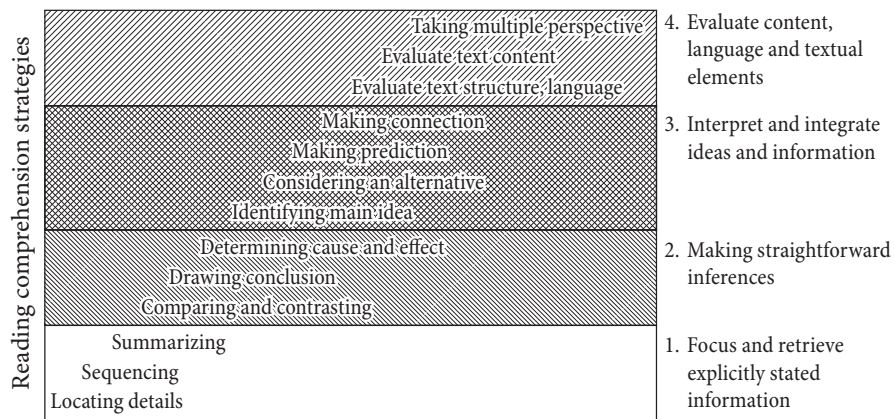
Creative journals



Reading response

Strategy knowledge plays an important role in the elementary reader's abilities. To become fluent comprehenders, readers must determine which strategies to use depending on the content and difficulty of the text. Due to the sophisticated nature of this process, students needed a great deal of explicit instruction and guided practice to become adept strategic readers. We found out, that this direct instruc-

tion (explicit or modelling) was most effective when coupled with guided practice in small groups to foster reading literacy. We focused instruction on a limited set of the most essential strategies connected with an appropriate reader’s ability. These strategies gradually led up to more abstract inference strategies, but it’s not meant to suggest they should be taught in any particular order.



Reading comprehension skills

The teacher provided comprehension instruction and challenged to reading strategy use through self-questioning, visualising, thinking aloud, an interactive discussion and a reflective journal, which guided student’s inner speech so they could self-monitor. These metacognitive strategies, which generalize across many tasks, help reader awareness of whether or not they comprehend what they are reading and assist the reader’s decision of what strategies to employ to aid comprehension. The students often adopted teacher’s support to awareness and regulation comprehension before, during and after reading and their strategies “went underground” and became a skill when used automatically.

| BEFORE reading | DURING reading | AFTER reading |
|---|--|---|
| <p>Planning reading – aim, goals, strategies, assessment, time, activating prior knowledge, setting, technique, etc.</p> | <p>Comprehension monitoring through</p> <ul style="list-style-type: none"> • self questioning • visualising, mental image • thinking aloud • interactive discussion • reflective journal (note taking) <p>Applying fix-up strategies when comprehension difficulties arise</p> | <p>Self-assessment in reading comprehension (portfolio assessments, checklists, discussion, self-reflective journal, etc.)</p> |

Metacognitive strategies

The teacher's regulation gradually leads to self-regulation of reading comprehension. In the classroom, where students have a choice of tasks, they can select the activities and join groups of children with the same interests at various centres around the classroom; we found out that children showed scant enthusiasm for such literacy activities. Shared control requires strategic thinking monitoring and evaluating their learning from students and provides them with opportunities to take responsibility for their reading.

Instruction begins with a teacher's demonstration of the strategy via "thinking aloud" and shifts to a "guided use" component during which students get multiple opportunities to try out the strategy under the watchful and supportive eyes of the teacher, and then it moves to "independent use", where students take on responsibility not just for using a strategy but also for self-assessing of its effectiveness. In exploration, the teacher invites students to take control of the reading act, to be aware of the reading strategy through the metacognitive strategies and subsequently to regulation of their comprehensive process in reading literacy.

- T: What comprehension strategy are we practising here?
 J: Sequencing.
 T: How do you sequence the story?
 O: You put the events in order.
 T: When does the sequencing strategy help you as a reader?
 V: When a story has a lot of events.
 T: Why is sequencing a useful strategy?
 M: It helps me remember more about a story after I've finished reading it.

- T: What comprehension strategy have we been using to practise our story analysis charts?
 O: Cause and effect.
 T: How do you use the cause and effect strategy?
 D: You decide how a character's problem makes him or her feel, and then you figure out how he or she acts and why.
 T: When does cause and effect help you as a reader?
 V: When it is not clear why certain events are happening and you need to make inferences about a story.
 T: Why is cause and effect a useful comprehension strategy?
 M: It helps you to understand the point of the story.

Classroom "metadiscussion"

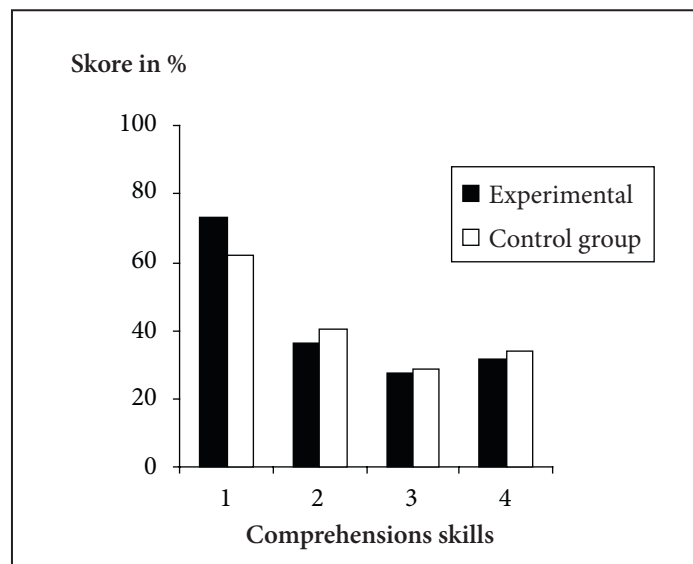
The goal of fostering self-regulated reading has implications for how the teacher should organize their literacy programmes and interact with students. The reading comprehension develops in the classroom, where students have opportunities to engage in complex, meaningful tasks, choose among literacy processes and products, control the level of challenge tasks present, evaluate their work and collaborate

with peers. Also, the positive atmosphere is more likely to develop in the classroom where the teacher guides rather than directs student's learning (Perry, 2002).

Method and results

At the beginning and end of the reading project, the class completed the written test of reading comprehension to measure student's literacy achievement. A random interval sampling technique was used to divide readers into two groups. The experimental group included readers who had been involved in the Early literacy project and the control group consisted of third and fourth graders who had not received this programme but represented their classmates at the same level. The third and fourth graders were tested using the Metacomprehension Strategy Index interview (modified according Schmitt, 1990) to determine their levels of strategy awareness. It is a self-report instrument, and, as such, it has the limitations associated with such instruments. For example one cannot tell from the instrument alone whether or not children actually do what they say they do. Therefore, the teacher observation was required to verify the say/do relationship. This observation and self-report measure of awareness were compared with the reading comprehension pre-test. The students, who performed at a high level on the pre-test displayed

Reading comprehension pre-test means
($t=0.324$, $p_{0.05}(22)=2.074$, $t < p_{0.05}$, no significant)



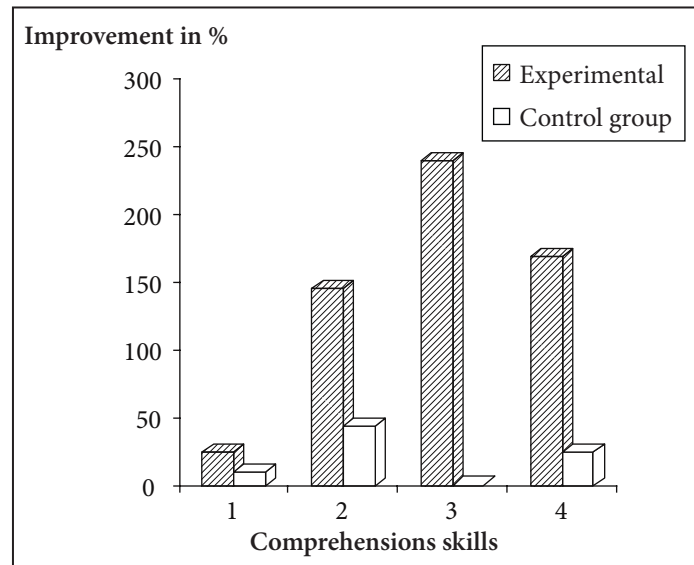
higher strategic awareness. This information was useful to the teacher in designing a comprehensive reading programme that fosters metacomprehension strategy awareness and competence.

Reading comprehension post-test means
($t=5.006$, $p_{0.01} (22)=2.819$, $t > p_{0.01}$, significant)



To document and reflect the metacognitive awareness of reading strategies the experimental group was involved in literacy workshops. Each Monday afternoon from February through June, the students spent approximately one hour in class participating in project activities. This reading intervention programme carries out on metacognitive instruction to develop students understand and apply comprehension strategies through the metacognitive strategies in their personal reading and their metacognitive awareness of these strategies that make them strategic readers. The post-test showed a significant difference between the pre- and post-level of reading comprehension. **The students who received training in metacomprehension strategies scored significantly higher comprehension achievement those students in the instructed control group.**

An important purpose was to study reader's behaviour and attitudes. To that end, we administered questionnaires to ask students about their reading project experiences. By the end of the project, many students were showing signs of reading for intrinsic reasons. Their journal responses demonstrated genuine excitement for their books and increasing interest in literacy.



Conclusion

This programme helped student to become metacognitive thinkers by explicit modelling and discussing the components of comprehension with them on a routine basis. The lessons invariably concluded with an interactive discussion about the particular strategies they had been practising. Specifically, the class members regularly reviewed the name of each strategy they had just employed, discussed how to go about using it with flexibility, speculated about when it could be useful to a reader, and determined why it was an effective comprehension tool. We encouraged the children to comment on the relative difficulty of each text they had read and consider how different strategies might be applied to new texts they would read in the future through the metacognitive strategies. This “metadiscussion” helped make the comprehension process more understandable and purposeful for readers. In this literacy workshop the teacher involved the children in planning and evaluating strategies and in thinking about thinking before, during and after the reading process. The metacognitive knowledge of reading comprehension strategies entered consciousness through metacognitive strategies to take control of the self-regulated process and aid to the development of reading comprehension.

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