

January 2011

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Recommended Citation

Vanairsdale, Kerry and Canedo, Sandra (2011) "Teaching Metacognitive Strategies to Improve Comprehension," *Michigan Reading Journal*: Vol. 44: Iss. 1, Article 6.

Available at: <https://scholarworks.gvsu.edu/mrj/vol44/iss1/6>

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Teaching Metacognitive Strategies to Improve Comprehension

BY KERRY VANAIIRSDALE AND SANDRA CANEDO

In a time when teachers are being held accountable for student achievement and the demands placed on teachers are at an all time high, we as teachers need to make sure we are using the most effective forms of instruction. Research shows that one area that is lacking in the lower grades is instruction in comprehension. According to Courtney & Montano (2006) most children do not know how to monitor their understanding as they read, nor do educators give them adequate strategies to do so. Although the support for teachers is changing with economic times, the teacher's role is not. Teachers still need to prepare their students for yearly assessments and give them the tools to succeed as they continue their academic careers. As educators we can make simple adjustments to our instruction to make certain that we are helping to fix this problem. This article will seek to promote effective reading comprehension in the classroom by using metacognitive reading strategies.

Consider the following teacher's traditional approach to teaching comprehension instruction in her fourth-grade classroom. The typical scenario in this type of classroom involves all students reading the same story that week, rereading as homework, and sometimes again in small groups. At the end of the week they are given a multiple choice test that uses literal recall of information as opposed to helping students think metacognitively about what they have read.

Sandra, the teacher, is reminded of her first teaching position in which she used a traditional approach and basal reading program. While a traditional approach can be very effective in teaching reading, when Sandra was using a basal program, she was so new to teaching and overwhelmed about taking over a classroom in the middle of the school year that she did not modify the lessons or deviate from the sequence of the book. Sandra followed the scripted plans, daily and weekly. Sandra remembers thinking as she made her lesson plans, "Thank goodness this reading program gives me a little break." Every story had scripted questions and possible answers, it told her when to stop in the story to ask the questions. There were activities for the spelling and grammar lessons and the test was already created, and all 5 days of the week were covered. Looking back, Sandra does think that she taught the children some valu-

able and effective reading, spelling, and grammar lessons. It wasn't until teaching in another district that did not use such a reading program, that she realized how she could have modified those lessons to really get the students thinking about their thinking and reading comprehension.

Sandra's classroom exemplifies the traditional approaches to reading comprehension that involved comprehension skill sheets and thick workbooks. According to Cattell (1999) these approaches do not teach children to use metacognitive strategies, nor do they develop the love of reading that is imperative for children to become lifelong readers. Eilers and Pinkley (2006) suggest that these traditional programs in which teachers use the basal text alone focuses on teacher-generated questions that actually assess the comprehension of a specific story rather than teaching students comprehension and monitoring strategies.

What Research Shows

According to Courtney and Montano (2006) metacognition is thinking about thinking, knowing what we know and what we don't know, and that skill entails both conscious awareness and conscious control of one's learning. Strategies such as summarizing and predicting are cognitive processes that are learned

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through scaffolded teaching to foster success in reading. Thinking about thinking, or metacognition, requires readers to monitor what they know and what they do not know and make adjustments based on this knowledge. Good readers are strategic in employing these strategies before, during, and after reading.

Metacognition is imperative to thoughtful, active reading because metacognitive readers gain a deeper understanding of text. The purpose of providing students metacognitive instruction is to enable students to take responsibility for their own learning and comprehension activities (Cattell, 1999) and to move students beyond the literal to higher levels of thinking (Barton, Freeman, Lewis, & Thompson, 2001). The goal is to develop active, independent learners, and it can be attained by integrating metacognitive skills in classroom instruction across all grade levels and areas.

According to Camahalan (2006), metacognition allows learners to monitor their progress when they try to understand and learn something. These metacognitive skills are often lacking in young readers. One vignette of effective instruction in metacognition in the classroom comes from Courtney & Montano (2006):

While holding up the book cover, a teacher introduces *Better Move on Frog!* by Ron Maris, to her class of first-graders. "What do you think this book will be about?" she asks.

"Kids!" Hallie calls out.

"Kids?" the teacher questions, "Why do you think that, Hallie?"

No maybe animals," says Hallie.

"Why did you say kids first?"

"I was just guessing," Hallie admits.

"Then I looked real good at the picture and saw only animals and no kids. So then I changed my mind.

"Well," the teacher says, "kids was a first guess. Then you looked more carefully at the picture on the cover and didn't see any kids. So then you made a new prediction based on what you saw in the picture. Predictions are good guesses. That is what we do when we read. We use the pictures to help us understand what we read."

The example given by Courtney & Montano is an excellent portrayal of metacognition in the classroom. Instead of dismissing the student's first guess, which was incorrect, the teacher has the student state her thinking. Then the teacher addresses the student's thought process and closes the lesson by stating what good readers should do before reading. By using sound instruction such as this in the classroom, teachers can lead children to succeed.

Explicit Teaching of Metacognitive Strategies

Explicit teaching of metacognitive strategies moves the focus of learning from an external control of comprehension (which includes prescribed materials and predetermined activities) to internal control that requires students to create their own perspectives, interpretations, and understandings (Cattell, 1999). These shifts in classroom instruction are reflective of increased awareness of the mental processes that are involved in comprehension, as well as an understanding that these processes can be acquired and developed through instruction and practice (Eilers & Pinkley, 2006). Eilers and Pinkley's research (2006), drawing on baseline and posttests, indicates that students who have explicit instruction of metacognitive strategies significantly increase comprehension levels. Baseline and posttest scores were achieved using quantitative instruments such as the Beaver Development Reading Inventory (DRA) and Index of Reading Awareness (IRA) and qualitative data such as graphic organizers, student learning logs, and anecdotal notes. In addition to earning higher comprehension scores, students who received explicit metacognition instruction also applied metacognitive skills in the written responses to reading (Barton, et al., 2001).

In a study by Cattell (1999), students who received explicit metacognitive strategy instruction also demonstrated a new sense of confidence while reading. Students were eager to share connections they had made with a book or magazine article. Students, who prior to explicit instruction, were intimidated by chapter books or books with smaller print, become more confident in their ability to conquer these types of books.

As teachers we all want to be effective in helping our students construct new knowledge and skills. The problem is many of us have been unaware that what we're doing either isn't working or could

be even more effective. Many of us try to use the teacher's manuals as a guide; however, teaching from the manuals does not reach every student. Using metacognitive strategies in the classroom can benefit students and has been shown to improve academic achievement (Courtney & Montano 2006). As teachers we need to think about our own thinking and adapt our instruction to meet the needs of all our students.

Gradual Release Model for Metacognition

When thinking through how to teach metacognitive strategies in the classroom, the first thing that comes to mind is using the Gradual Release of Responsibility Model (Pearson & Gallagher, 1983). This is an instructional model that requires the teacher to transition from assuming all the responsibility for performing a task to scaffolding students in doing so, and eventually releasing the responsibility to the students. Gradually, the students assume all the responsibility. This gradual release may occur over a day, a week, or a semester.

The first component is the focus lesson. This component allows teachers to model their own metacognitive processes as active readers. Usually these brief focus lessons establish the students' purpose for reading and outline the learning objectives. Next is the guided instruction component. During guided instruction, teachers prompt, question, facilitate, or lead students through tasks that increase understanding of a particular text. The third component is collaborative learning. During the collaborative learning component in the gradual release of responsibility model, students consolidate their understanding of the content and explore opportunities to problem-solve, discuss, negotiate, and think with their peers. The last component, independent learning, is the most important goal of effective instruction—to provide students with practice in applying skills and information in new ways. As students transfer their learning to subsequent tasks, they synthesize information, transform ideas, and solidify their understanding. They become active readers and capable learners. It is important to understand that the gradual release of responsibility model is not linear. Students move back and forth among each of the components as they master skills, strategies, and learning standards.

What Does Explicit Metacognitive Instruction Look and Sound Like?

Teachers should give the students reasons for why they are using these strategies and why they need to know them as second nature. Teachers should also model the comprehension strategies they are teaching and allow the students independent time to practice the strategies. By using the gradual release of responsibility model and the suggested metacognitive teaching questions and prompts in Table 1, teachers can review their teaching of comprehension strategies to ensure they are teaching students to be more metacognitively aware. The strategy table lists comprehension strategies, traditional questions and prompts, and then suggestions for making these more metacognitive. These strategies can be used with any grade level, with any story, any subject area, and in whole group and small group instruction.

Conclusion

Sandra's move to a different district influenced her interest and commitment to scaffolding students' metacognition. Her new district did not use a basal reading program, instead using trade books for whole group instruction to introduce comprehension strategies and model the strategies. Sandra then worked with smaller reading groups in which the children were reading trade books at their reading level, and focused more deeply on strategies and students discussing the stories, their thinking, and naming the strategies that they were using to help them understand the stories and why they were using these strategies. By the end of the year, students were proficient in reading books at their level, naming the strategies they were using, and discussing how the strategies helped them in understanding the stories. Sandra began reflecting on her previous experience using a basal reading program and thought about how she could have made those very same lessons more metacognitive for the students by simply asking the questions differently and having the students think about their thinking. The purpose of Sandra mentioning the basal reading program is not to imply that basal reading programs are ineffective, just that she could have made the approach more metacognitive by getting the students to think about their thinking and reading. Clearly research supports the use of metacognitive strategies in any reading program, beginning in the early elementary years.

Table 1. Question Prompts for Comprehension Strategies

Strategy	Traditional Questions/ Prompts	Taking it to the Next Level: Metacognition
Before Reading	As you look at the title and pictures, ask yourself questions about what the story might be about, who the main character is, where the story takes place and if there may be a problem.	What did you notice in the author's title and the pictures and how did they help you understand the text? What was the main thing that you focused on to help you make your predictions?
Story Elements	Who are the main and secondary characters? What are the problem and the solution? What are the other story elements in this text? What did you think of the main characters' problem? How well did the main character fix his problem? Would you have solved your problem the same way or differently? Explain your thinking.	What helped you decide who the main characters were? How did you decide the setting? Did you change your thinking about characters throughout the text? How and why did your reading change your interpretation?
Using Schema	When you were reading that book, what did it remind you about that you already knew? Did it remind you of anything that has happened to you before? Did you have a similar experience in your life that helped you to understand this story?	How did your experiences help you understand the story? What do you understand now, that you didn't understand before?
Think Aloud/Monitoring	Think about the problem in the story. Think about how the story was solved.	Did you encounter any problems while reading? What did you do to solve the problem? Why did you select to solve it using that strategy? When you were reading, did everything make sense? If not, what did you do?
Visualizing	When you were reading the story, what images or pictures did you make in your head?	Does the picture you make help you understand the story? Why do these pictures help you? Did you revise your images as you were progressing through the text? If so, how and why? How did they help you understand the story better?

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Inferencing	What do you think will happen next in the story? Why do you think that will happen? What, in the story so far, helped you to make that prediction? What does the author mean when she says _____? What in the text helped you know that? Is there anything already in schema that helped you figure that out?	How did the author cause you to infer/conclude that? What evidence can you use to support that?
Questioning	What did you wonder about as you read the story? What are you still wondering about?	What did you do to help you understand the story? How did your wondering help you understand/clarify the story? What questions do you have about this book now? Does it help you when you ask questions? If so, how and why?
Most Important Part	What are the most important parts in the story?	What clues did you use to decide that was the most important part?
Making connections	How does this story connect to an experience that you have had in your life? What story does this story remind you of? Have you read a story that is similar?	How did the connection help you understand the story?

In conclusion, creating effective comprehension instruction in the classroom should begin with teachers teaching their students to think metacognitively about their reading. In a time when higher demands are being placed on teachers, we can make adjustments to our instruction to transition from the traditional approach of teaching comprehension to the metacognitive approach. Our goal as teachers, should be to help students develop metacognitive skills so that they can independently and strategically understand what they are reading. Literacy coaches and reading specialists can provide professional development to help teachers move away from using manuals and skill and drill workbooks to using explicit metacognitive instruction. We have shown metacognitive instruction can be created using any reading series at any grade level. Research shows that approaching teaching from the metacognitive view point will not only promote students' understanding, but help students to retain what they are reading and in the end increase student comprehension levels which will increase student achievement levels.

References

- Barton, V., Freeman, B., Lewis, D., & Thompson, T (2001). *Metacognition: Effects on reading comprehension and reflective response* (Master's Thesis). Saint Xavier University, Chicago, IL.
- Camahalan, F (2006). Effects of metacognitive reading program on the reading achievement and metacognitive strategies of students with cases on dyslexia. *Reading Improvement*, 43(2), 77-93.
- Cattel, M. (1999). A study of the effects of metacognition in reading comprehension (Master's Thesis). San Diego State University, CA.
- Courtney, A. & Montana, M. (2006) Teaching comprehension from the start, one first grade classroom. *Young Children*, 61(2), 68-74.
- Eilers, L.A., & Pinkley, C. (2006). Metacognitive strategies help all students to comprehend all text. *Reading Improvement*, 43(1), 13-29.
- Pearson, P. D., & Gallagher, M. C. (1983). The instruction of reading comprehension. *Contemporary Educational Psychology*, 8, pp. 317-344.

Call for 2012 Board Nominations

Michigan Reading Association

A Michigan Non-Profit Corporation

Michigan Reading Association Members,
You can shape the future of MRA through the nomination process. You are invited to submit names of qualified members, including yourself, to actively participate in the Michigan Reading Association Board of Directors. We are seeking enthusiastic nominations for the following positions: *(Please read descriptions of duties at the end of this petition.)*

- Vice President (Four Year Term: 2012-2016)
 - First Year (2012-2013) - Vice President
 - Second Year (2013-2014) - President-Elect
 - Third Year (2014-2015) - President
 - Fourth Year (2015-2016) - Past President (non-voting)
- Treasurer (Three Year Term: 2012-2015)
- Region 2 Representative (Three Year Term: 2012-2015)
- Region 4 Representative (Three Year Term: 2012-2015)
- Region 5 Representative (Three Year Term: 2012-2015)
- Region 9 Representative (Three Year Term: 2012-2015)

To nominate, complete and return the nomination petition and consent form to:

Michigan Reading Association
Attn: Kathy Operhall, Elections Committee Chair
668 Three Mile Road NW
Grand Rapids, MI 49544-8219
Telephone: (616) 647-9310 * Fax: (616) 647-9378

Official MRA Nomination Petition - 2012

I hereby nominate: *(Please print or type.)*

Name of Nominee

Home Address City State Zip Code

Home Telephone Work Telephone Email Address

For the office of: _____ *(Indicate one.)*

Submitted by: _____ MRA Membership # _____

Home Telephone: _____ Email Address _____

Nominee Consent Form - 2012

I hereby agree to be a candidate for the MRA position of _____
for the term of office specified above.

Let it also be known that, as of this date, I am a member of: *(All three memberships must be current for nominees.)*

- International Reading Association: _____ Membership Number: _____
Expiration Date: _____
- Michigan Reading Association: _____ Membership Number: _____
Expiration Date: _____
- The _____ Reading Council (Local or Special Interest Council)

Signature _____ Date _____

This form MUST be received by December 13, 2011

The Michigan Reading Association shall comply with all federal laws and regulations prohibiting discrimination and with requirements and regulations of the State of Michigan. It is the policy of the Michigan Reading Association that no candidate or applicant for a position or office in this organization shall, on the basis of race, color, religion, national origin, creed, ancestry, age, sex, marital status, or disability, be discriminated against, excluded from participation in, denied the benefits of or otherwise be subjected to discrimination in any program or activity for which the Michigan Reading Association is responsible. The President of the Michigan Reading Association, together with the Executive Committee, shall ensure that Federal and State regulations are complied with and that any complaints are dealt with promptly in accordance with law. Policy adopted 4/3/93

DUTIES OF MRA ELECTED POSITIONS

Following is a description of duties and responsibilities for the positions noted on the Official MRA Nomination Petition — 2012:

RESPONSIBILITIES OF MRA VICE PRESIDENT

(Note: The Vice President position is a four year board commitment, that progresses from Vice President, to President Elect, to President, to immediate Past President. Please see the MRA Policies and Procedures on our website for responsibilities of each position.)
The Vice President shall:

1. Attend all meetings of the Board of Directors, Executive Committee, the Annual Meeting, Leadership Training, and meetings of the Michigan Reading Association as a voting board member.
2. Assume and perform the duties of the office of the President-Elect for the remainder of that term in office in the event that the President-Elect resigns, becomes President, or the office is otherwise vacated.
3. Perform such duties as assigned by the President. *(Includes preparation of the application for the IRA Award of Excellence.)*
4. Represent the Michigan Reading Association at the discretion of the President.
5. Prepare and submit a budget for the position of Vice President to the chair of the Budget Committee by the date requested.
6. Submit forms for reimbursement and payments on the Reimbursement Request Forms following the procedures outline in Item 11 under the Treasurer's Responsibilities in Section 1.6 of this document.
7. Serve as a member of the Executive Committee and the Annual Conference Planning Committee.
(Note: During the following year, this person will chair the annual MRA conference, as President elect.)
8. As a member of the Executive Committee, advise the President in giving direction to the Executive Director.
9. Attend the IRA Leadership workshop and be reimbursed up to \$500, pending the submission of receipts attached to the proper Reimbursement Request Form, for registration, transportation, lodging and meal expenses providing there is no other reimbursement from another source.
10. Represent the Michigan Reading Association at the annual IRA Convention. Registration, transportation, lodging (1/2 double), and meal expenses will be reimbursed by MRA pending submission of receipts attached to the Reimbursement Request Form, provided there is not reimbursement from any other source.

RESPONSIBILITIES OF MRA TREASURER

The Treasurer shall:

- 1) Attend meetings of the Board of Directors, Executive Committee, the Annual Meeting, MRA Leadership Training, and meetings of the Michigan Reading Association as a voting board member.
- 2) Have custody of the funds of the Michigan Reading Association which shall be deposited in the name of the Michigan Reading Association at such banking institution as authorized by the Board of Directors.
- 3) Inform the Board of Directors of banking transactions and investment of funds.
- 4) Arrange for the bonding of appropriate staff.
- 5) Co-sign (with president or executive director, if requested by president) all checks and drafts on behalf of the Michigan Reading Association for the disbursement of funds in accordance with the budget approved annually by the Board of Directors.
- 6) Supervise the collection of dues and other monies due the Michigan Reading Association.
- 7) Provide incoming officers and chairs with copies of appropriate budgets and actual expenditures from the previous year.
- 8) Request budget projections from
 - A. All elected MRA officers
 - B. MRA/IRA Coordinator
 - C. Standing Committee chairs
 - D. Ad Hoc Committee chairs
 - E. Those appointed to the MRA Board
 - F. Publication Editors
 - G. Executive Director and Staff
- 9) Serve as chair of the Budget Committee.
- 10) Prepare and submit the annual budget to the Board of Directors for approval at the final meeting of the current fiscal year of the Board of Directors meeting.
- 11) Follow these procedures for payment request:

Those persons who have submitted budgets (see Item 8 above) will submit Reimbursement Request Forms to the MRA Treasurer.

 - A. Submit two copies and keep a copy for records.
 - B. The Treasurer will retain the original.
 - C. Receipts and/or invoices must accompany each request.
 - D. Each check issued must have a separate request.
- 12) Serve as a member of the Executive Committee to advise the President.
- 13) Advise the President in giving direction to the Executive Director.
- 14) Prepare and submit financial reports at each meeting of the MRA Board of Directors.
- 15) Periodically provide a report of the financial status of each committee.
- 16) File required financial statements and/or reports with the Board of Directors and other agencies as requested.
- 17) May attend an IRA Convention once during a term of office. Registration, transportation, lodging (1/2 double), and meal expenses will be reimbursed by MRA pending submission of receipts attached to the Reimbursement Request Forms, provided there is not reimbursement from any other source.
- 18) Participate in MRA Leadership Training as requested by the MRA/IRA Coordinator.
- 19) Present the treasury records for annual tax preparation by a Certified Public Accountant.
- 20) Present the records for an external audit every three years.
- 21) Arrange bonds for the organization, office personnel, and board members receiving or disbursing monies; file with official documents in the MRA office.
- 22) May only serve as Treasurer for two consecutive three-year terms.

RESPONSIBILITIES OF REGIONAL REPRESENTATIVES

Each Regional Representative shall:

1. Serve as voting members of the Board of Directors and attend all meeting of the Board of Directors, the MRA/IRA Organizational Committee, the Annual Meeting, MRA Leadership Training, and meetings of the Michigan Reading Association.
2. Communicate frequently with the MRA-IRA coordinator
3. Hold membership in International Reading Association, Michigan Reading Association, and each Local Council or Special Interest Council in represented area.
4. Attend yearly at least one meeting of each Local and/or Special Interest Council within area of responsibility. Obtain calendars, brochures, and newsletters of yearly events.
5. Share contact information. Communicate at least once a month with the President of each council represented, and offer assistance when needed. Assistance may relate to membership, activities, projects, programs fundraising, and problem solving, honor council, council grants, and leadership.
6. Review MRA Leadership binder and encourage local council leaders to understand and use the information.
7. Participate in the MRA annual conference by joining the planning committee, working at the IRA/MRA booth or registration, or introducing a speaker.
8. Promote the development of new councils in the region. Guidelines may be obtained from the MRA/IRA coordinator.
9. Prepare and submit a budget for the position represented to the chair of the Budget Committee by the date requested.
10. Submit forms for reimbursement and payments on the Reimbursement Request Forms following the procedures outlined in Item 11 under the Treasurer's Responsibilities in section 1.6 of this document.
11. Act as liaison from the Board of Directors to all the councils represented. Distribute MRA membership forms, conference promotions, and publications.
12. Submit written reports describing council activities for each Board of Directors meeting (Per schedule and guidelines of the MRA secretary).
13. Read and respond to written materials by deadlines.
14. Carry out duties assigned by the President and MRA/IRA Coordinator including, but not limited to, submitting articles promoting regional activities to News and Views.
15. Reside OR be employed within the region where elected with that address serving as the official membership mailing address.
16. May only serve for two consecutive three-year terms in the same position.

If you have questions regarding Michigan Reading Association 2011 nominations or elections, contact Kathy Operball (koperball@comcast.net)