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AUTHOR Gil-Garcia, Ana; Canizales, Rosario
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ABSTRACT

This study examined meta-cognitive strategies utilized by bilingual, Hispanic 6th graders from three Chicago public schools that had embraced a staff development initiative designed to help increase Hispanic students' reading comprehension levels. The Strategic Teaching and Reading Project (STRP) emphasizes five basic comprehension strategies: meta-cognition, prior knowledge, inferencing, word meaning, and text structure. It is based on a constructivist approach to reading and grounded in a five-phase professional development model that includes: building a knowledge base, observing models and examples, reflecting on one's own practice, changing one's practice, and gaining expertise. Participating students read a short passage, then completed the Meta-Cognitive Form for Younger Students, which determined the degree of use of meta-cognitive strategies. Three months after receiving the STRP training and completing the pre-intervention data collection using the Meta-Cognitive Interview Form, six teachers were observed in their classrooms using a checklist about meta-cognition before, during, and after the lesson. Results indicated that the STRP provided teachers with meta-cognitive tools before, during, and after lessons. The meta-cognitive strategy was highly apparent in students following the training. Students benefited from instruction in meta-cognitive strategies. One area of positive change was students' use of self-generated questions. (Contains 23 references.) (SM)

COMMANDING STRATEGIES BY HISPANIC STUDENTS AS THEY THINK ABOUT THEIR OWN THINKING PROCESS

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Dr. Ana Gil-Garcia, Northeastern Illinois University
Dr. Rosario Canizales, Chicago Public Schools

COMMANDING STRATEGIES USED BY HISPANIC BILINGUAL STUDENTS AS THEY THINK ABOUT THEIR OWN THINKING PROCESS

Ana Gil & Rosario Cañizales

During the last two decades, many studies have been conducted to explore the variables related to reading comprehension. One of the research lines is that related to metacognition. According to Flavell (1976), metacognition is the cognitive process by which the learner is aware of his/her ability to think about, be cognizant of, and able to select and adjust the necessary strategies needed to learn and process specific information or build a knowledge base.

Garner and Alexander (1989) and Schoenfeld (1987) proposed that metacognition can be taught as a executive routine which allows learners behave in a reflective, planful, and self-corrective way. As a result, they become metacognitive aware about their thinking and learning processes. Furthermore, Jones, Palincsar, Ogle, and Carr (1987) and Schoenfeld (1987) stated that metacognition can be recognized by its potential to improve and refine the educational process since it involves other processes which help students perform at a higher level of reasoning. Instructional methods that focus on helping students develop metacognitive strategies can enhance learning and personal responsibility for learning (Learner-Centered Principles Work Group, 1997).

In the case of reading, researches affirm that metacognition plays a key role in processing printed materials (Weir, 1998). It can be stated that a metacognitive reader develops a "third eye", which supervises and adjusts the reading process as it is being

developed (Garner & Alexander, 1989). In this context, several studies have been carried out to explore specifically the metacognitive development of bilingual students.

The results of these studies are inconsistent and show disagreement. Although, some of them maintain that instructional emphasis on the development of the dominant language has a positive impact on second language learning others show that bilingual students reading achievement is lower than monolinguals. It is explained as a lack of first language reading skills development. As a result, the transfer of reading strategies across languages could be jeopardized when dominant language reading is postponed or omitted (Carlisle, Beeman, Hull, & Spharm, 1999; Carrel, 1989; Hernandez, 1993; Hope & Howard, 1996; Jimenez, Garcia, & Pearson, 1995; Muñiz-Swicegood, 1994; Padrón, 1992).

Jimenez, Garcia, and Pearson (1996) have found that Latino bilingual students that are successful English readers possess a qualitative unique fund of strategic reading knowledge opposite to the less successful English readers from a Latino background. This characteristic enables them to process information, fill the gaps when they encounter unfamiliar words, and comprehend the text. Hernandez (1993) reports that Mexican American students benefit from instructional approaches designed to develop their critical thinking and self-directed learning. Furthermore, the author suggests that metacognitive development is an effective approach to raise the intellectual potential of Spanish-speaking students.

Carlisle, Beeman, Hull, and Spharm (1999) report similar results related to the capabilities and reading achievement for children who are becoming bilingual. The researchers suggest that metalinguistic development may be an important education

priority for children with limited native-language development in the early stages of bilingualism because of their positive effects on second-language reading comprehension.

The Chicago Public School System (CPS) faces this reality on a daily basis. According to CPS (2000), 34% of students of the system have Latino background and 16% are considered limited-English-proficient. These figures suggest that almost 50% of the Latino population has a handicap to learn. On this regard, CPS has undertaken several staff development initiatives in order to address the issue of increasing the level of reading comprehension (Bradley, 1995).

One of the professional development programs adopted by CPS is the Strategic Teaching and Reading Project (STRP) designed by the North Central Regional Educational Laboratory (NCREL) in 1987. This project is currently implemented in 125 schools around the country. It focuses on five basic comprehension strategies: metacognition, prior knowledge, inferencing, word meaning, and text structure (Winking & Quinn, 1994).

The goal of STRP is to bring strategic teaching and learning into classrooms. This project is based on a constructivist approach to reading, which defines reading as a dynamic interaction between reader, context, and text. STRP is grounded in a five-phase professional development model that includes:

1. building a knowledge base
2. observing models and examples
3. reflecting on your own practice
4. changing your practice
5. gaining expertise

This model offers teachers and administrators a repertoire of collaborative experiences which include participation in Summer institutes, action research, peer coaching, instructional conversations, audioconferences, and computer networking.

The present study focuses on the metacognitive strategies utilized by bilingual 6° Grade students from three Chicago public schools that have embraced the STRP project as their professional development model.

Subjects

The participating sample of this study was 136 sixth-grade Latino students from three Chicago public schools. Forty seven percent of the participants were boys and 53% were girls with more than three years in a bilingual program. All students were eligible for reduced meals.

Instrumentation

The Metacognitive Interview Form for Younger Students (NCREL, 1995 rev. ed.) was the instrument administered to determine the degree of the use of metacognitive strategies by the students. This is an informal assessment tool to explore students' awareness and deliberant use of metacognitive strategies during the reading process. The instrument consists of four semi-structured questions that elicit the use of metacognitive strategies. The questions are as follows:

1. What should I do first?. Should I do anything before I start to read?. Show me how to do that.
2. What should I do while I am reading?. Show me how to do that.
3. What should I do if I am having trouble understanding while I am reading?.
4. Do I need to do anything else to really understand what I read?

Data Collection

The individual classroom teachers administrated the interview form after students have read a short reading passage. The students were asked to read silently to give them the opportunity to evoke cognitive and metacognitive strategies. After completing it, they responded to the Metacognitive Interview Form independently with no time restriction. The procedure differed for students identified as low ability readers or non-readers. In this case, teachers read the passage and students were individually interviewed.

There were two stages in the data collection process. The first stage consisted of tallying and analyzing all the students' responses from the Metacognitive Interview Form. Rewriting and transcribing the students' responses verbatim was the initial step. Under each question, all responses given to each one was written. The interview was coded, using a triangulation design. It allowed for the discovery of patterns that characterize the students' metacognitive use of reading strategies.

Three months after receiving the STRP training and carrying out the pre data collection using the Metacognitive Interview Form, the researchers observed 6 teachers in their classrooms for 40 mins. using a checklist which contained questions pertaining to metacognition before, during, and after the lesson took place.

Results and Conclusions

The answers to the four questions of the Metacognitive Interview Form are as follows:

1. **What should I do first?. Should I do anything before I start to read?. Show me how to do that.**
    - *Read the title first*
    - *Read the question first*

- *Begin to read*
- *Concentrate*
- *Look what you are going to read*
- *Read directions*
- *Predict*
- *Relax*
- *Don't do anything*

2. What should I do while I am reading?. Show me how to do that.

- *Think about what you are reading*
- *Answer questions as you go along*
- *Read quietly*
- *Read loudly*
- *Read, stop, and read*
- *Get comfortable*
- *Use context clues*
- *Don't do anything*

3. What should I do if I am having trouble understanding while I am reading?.

- *Reread*
- *Ask for help*
- *Skip I and come back to it latert*
- *Divide words into syllables*
- *Use a dictionary*
- *Guess*

- *Use context clues*
- *Imagine and visualize*

4. **Do I need to do anything else to really understand what I read?**

    - *Reread*
    - *Read books I understand*
    - *Find details*
    - *Take notes*
    - *Read summary*
    - *No responses*
    - *Concentrate*
    - *Use a dictionary*
    - *Question yourself*
    - *Read silently and slowly*

The following lists of skills were detected on students after being taught metacognitive skills.

What is your plan before reading?

- Read the title and look at the pictures
- Start reading
- Think about what the book will be about
- Wait for the teacher to tell me what to do next and what to read

What do you do during reading?

- Sound out the words
- Skip the word

- Ask for help
- Point to the words
- Think what will happen next in the story
- Just read

What do you do after reading?

- Stop reading
- Put the book away
- Think about the book
- Read story over again

The Strategic Teaching and Reading Project provides teachers with metacognitive tools before, during, and after lesson. The following table shows these behaviors:

Before	During	After
Sets goals for reading	Uses diverse and available strategies	Reviews the reading activity for comprehension
Activates prior knowledge	Check predictions for accuracy	Summarizes the key ideas of the text
Skims to determine text structure using headings, graphs, etc.	Stops at certain points and summarizes what has been read	Thinks aloud what is needed to learn more about the topic
Makes predictions about what will be learned	Takes notice of word meaning (words not understood)	Connects topic with other information
Models a Think Aloud before students	Determines key vocabulary	Re-reads the text to clear up misconceptions
Models by demonstrating how to do a task	Notes when comprehension problems arise	Decides and recommends further reading on the topic

Discussion

The results of this study suggest that bilingual students can benefit from instruction in metacognitive strategy use. A study conducted by Muniz-Swicegood (1994) revealed

that student without intervention (metacognitive strategy training) had significant lower-levels of thinking process while reading. Significant improvement and the types and frequency of metacognitive strategies that students were using during the Spanish reading were evident post metacognitve strategy training. This study reinforced that an area of positive change was in the use of self-generated questions. Logically, it was verified that the metacognitive strategy was highly apparent in the students after receiving the training. The previous findings are consistent with the ones in this research. The inclusion of metacognition in the subject matters before, during, and after the students are exposed to them, seems to support reading comprehension and organization skills.

When bilingual students are challenged to use higher thinking skills through the context of their language, the metacognitive behaviors augment. Since research indicated that bilingual students should not be limited to recall and passive learning, they directly acquired the benefits of the teachers' metacognitive training.

The metacognitive behaviors of the sixth grade bilingual students were consistent with the positive side of the dilemma of bilingualism and reading comprehension. The metacognitive development is, in effect ,an effective approach to raise the intellectual potential of Spanish-speaking students.

In a world of constant changes, the challenge of education is to mediate situations in which students can develop effective strategies. In this regard, our role as teachers is enhanced first, through our mediating and improving our own knowledge base and teaching skills. A Metacognitive learning-environment can be ensured that will facilitate the development of "effective thinkers" who will be able to solve problems and continue learning throughout their lives.

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