Think Aloud Protocols:
Teaching Reading Processes to Young Bilingual Students
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Research on reading development has shown that good readers use strategies that are not used by poor readers (Grabe & Stoller, 2002). Research also suggests that students learning to read can and need to be *taught* how to use specific strategies for understanding a text (Anderson, 1999, p. 70; Grabe & Stoller, 2002). Chamot and O'Malley (1994) include strategy instruction as the "third and central component of CALLA" [Cognitive Academic Language Learning Approach] (p. 11), and they stress the importance of instruction in the use of explicit strategies in language development.

Readers need instruction from the teacher and guided practice if reading strategy training is to be successful. Winograd and Hare (1988) explain that the teacher needs to describe what the strategy is; why the strategy should be learned; and how, when, and where the strategy should be used.

Most of the research on strategy use and instruction has been conducted with older (middle school to college age) students (e.g., Jiménez, 1997; Kahmi-Stein, 1998). Jiménez, for example, found that good readers who are bilingual in English and Spanish use a "multistrategic approach" (p. 612) that includes translating, transferring information across languages, and reflecting upon the text in either Spanish or English.

One way for teachers to know what reading strategies students are using and help them use effective strategies in their reading is to engage them in think-aloud protocols. With think-aloud protocols, students verbalize, in an interview context, how they are processing the text they are reading (Jacobson, 1998).

This digest describes the use of think-aloud protocols with young bilingual children, demonstrates that think alouds can be used effectively with elementary school children, and suggests that instruction in reading strategies should be given to young bilingual students and that more research needs to be done in this area.

Think-Aloud Protocols with Young Bilingual Students

A think-aloud process was used in a small study of 12 first through third grade students in three elementary dual language (English and Spanish) schools (Lavadenz, 2000). Six of the students were native English speakers, and six were native Spanish speakers. The students had been enrolled in two-way immersion classes since kindergarten. In accordance with the particular model of two-way immersion in place in their schools, instruction included decreasing amounts of Spanish and increasing amounts of English each year, beginning with 90% of instruction in Spanish and 10% in English in kindergarten, 80% and 20% respectively in first grade, 70% and 30% in second grade, and 60% and 40% in third grade. All literacy instruction prior to third grade had been in Spanish. The students were considered to be bilingual based on their performance on standardized tests in both languages.

The students were asked to select one of two grade-level books written in English to read. All students were given the choice of languages with which to respond, and I (the researcher) purposefully used both languages throughout the process. I did this to model for them flexibility in use of the two languages; to mirror their classroom reading instruction, which was in Spanish; and to encourage them to speak and think out loud in the language in which they were most comfortable, especially if they encountered unfamiliar vocabulary.

I introduced the think-aloud process to each student with an oral explanation and a chart with a list of the actions they could take if they had difficulty , and I modeled the process. I made sure to emphasize that students could think and speak in the language in which they felt most comfortable, either Spanish or English.

Excerpts From Think-Aloud Dialogs

In the example below, we see how a teacher can model the think-aloud process. Diana ("D"), a second grade native English speaker, listened as I ("R," for "researcher") read the text and modeled the process.

Text: *I was in bed already when my grandmother came in to say good night. She pulled off the black shoes and stretched her feet.* (from *My Grandmother's Journey*, by J. Cech, 1991, New York: Bradbury Press. Copyright 1991 by Bradbury Press.)

R: Hum. That word ["stretched"]. I wonder what that word is. Hum. Maybe I will look at the picture again to see what it means. OK. In the picture she took off her shoes and her feet were out of the shoes. *Me hace pensar cuando me quito los zapatos después de un día largo y me estiro los pies. ¡Mis pies se sienten tan mejor cuando no están apretados en mis zapatos! ¿No te sientes igual tú?*

D. *Sí, cuando puedo estirar mis pies, ya no me duelen tanto.*

R. What is that word for *"estirar"*? Let me look at it again. So she took off her shoes and *stretched* her feet. That's it! Stretched. You see?

D: Yes.

R: That's what I want you to do when you do this think aloud. What happens when you read and you come to a word you don't know? I'd like for you to ask yourself questions out loud. So do the first three things on the chart. Ask yourself a question, tell me what your question is, and try the word again.

In this and the examples below we can see three processes:

1) Modeling. The student was given a demonstration of the process that emphasized pausing to think about comprehension and asking questions when encountering new vocabulary.
2) The flexible use of two languages to facilitate comprehension of new vocabulary.
3) The building of cross-linguistic awareness of story structure and genre.

In the first excerpt below, for example, I encouraged Samuel to recall that we were reading a rhyming book to help him think of the appropriate rhyming pattern in order to read an unfamiliar word. In the second example below, América remembered reading the same story in Spanish and identified the specific incident in the Spanish version, which facilitated her reading of an unfamiliar word in English.

Here Samuel (S), a second grade native Spanish speaker, is being guided to use the think-aloud process when he doesn't understand a word. After following my modeling of the process and starting to read, Samuel got stuck on the word *canoe* in a rhyming book. Here he responds to the question, "What do you do when you read and come to a word you don't know?"

Text: *What can you do? What can you do? What can you do with a chair? You can pretend you are a bear saying boo in a zoo. Or a seasick kangaroo. Now the chair is a canoe.* (from *What Can You Do with a Shoe?*, by B. Schenk de Regniers, 1997, New York: McElderry Books. Copyright 1997 by McElderry Books.)

S. Separate the word in syllables if you don't know the word?

R. If that's what you do, I want you to tell me that. If that's something that you are trying, then tell me, OK?

S. (reading) What I can do with a shoe.

R. OK, read that again.

S. What I . . . (correcting) What can you do with a shoe?

R. Good!

S.What can you do . . . with a chair? You can pretend you are a bear saying boo in the zoo. Or a kangaroo. Now the chair is a ca/non (simultaneously dividing the word into syllables with his fingers and sounding it out).

R. A what? OK, try that again and think about . . . What you are thinking about?

S. I'm thinking about a canon.

R. OK, think about what kind of book this is.

S. Um, like that is . . .

R. *Puedes contestar en español si quieres.* (You can answer in Spanish if you like).

S. *Como de ser chistoso.* (Like, it's funny.)

R. *¿Qué hace el author para ser chistoso? ¿Qué tipo de palabras usa?* (What does the author do to make it funny? What kind of words does he write?)

S. *Usa palabras chisotosas.* (He writes funny words.)

R. *Um hum . . . Mira aquí. Lee esta oración otra vez.* (Let's look back here. Read this sentence again.)

S. (reading) You can pretend you are a bear saying boo in a zoo.

R. What kind of words . . .

S. (interrupting) *Como que riman.*

R. *Sí! Riman. Muy bien.* OK, so let's go to the next sentence.

S. (reading) Or a seasick kangaroo. Now the chair is a cone.

R. What word was this supposed to rhyme with here?

S. It's supposed to rhyme with chair.

R. Uh, maybe . . .

S. Or now . . .

R. Or . . .

S. Or kangaroo.

R. OK, so what do you think that is now?

S. Ummmm. Now the chair is a ca/no/e (sounding out the word with Spanish phonology and pronunciation).

R. What was this again?

S. Ca . . . no . . . e . . . canoe! Yes.

R. Right! What did you do there?

S. Kangaroo and right here is a canoe. (pointing to the picture)

R. So how did you figure it out?

S. I looked at the picture and sounded it out so that it can rhyme.

In Samuel's case, my assistance triggered his use of additional strategies. He eventually reached the conclusion that *canoe* rhymes with *kangaroo* and used this knowledge in combination with syllabification strategies to correctly read the word. Additionally, he understood the concept of canoe by using the picture (context) clue in the book.

The following excerpt illustrates the way that prior reading, even if in a different language, can help with comprehension of a text. América, a first grade native Spanish speaker, recalls having read the same book she is reading now, *Apple Tree, Apple Tree,* in Spanish in kindergarten.

Text: *Apple Tree, Apple Tree, do you have a gift for me? Yes, I have a gift and a good gift too. I have an apple just for you.* (from *Apple Tree, Apple Tree (Just One More Book Just for You),* by M. Blocksma, 1983, New York: Children's Book Press. Copyright 1983, Children's Book Press.)

A. (reading) Apple tree, apple tree, do you . . . (pausing) . . .

R. *¿Qué estas pensando aquí?*

A.: *Me estoy acordando esta parte cuando lo hice en kinder.* (I'm remembering this part when I did it in kindergarten.)

R. *¿De qué te acuerdas?* (What do you remember?)

A. *Que el gusanito le estaba pidiendo un regalo.* (That the little worm was asking him for a gift.)

R. *OK, muy bien. Ahora ¿cuál es la palabra* regalo *en ingles?* (OK, very good. Now what is the English word for *regalo* (gift)?)

A: *Esta*—(sounding out very slowly) g-i-f-t. Gift!

Having read this book in Spanish appears to have been helpful to América's reading of it in English.

Conclusion

This study indicates that primary grade students can be taught explicit reading strategies such as talking out loud about what they are thinking when they encounter difficulty with a text. In the preceding excerpts from the study, first through third grade students used contextual cues (pictures), decoding skills (phonetic knowledge and syllabication), and text structure to help them understand what they were reading. In line with research on reading comprehension and metacognition among older learners (Anderson, 1999; Birch, 2002; Jiménez, 1997; Kamhi-Stein, 1998), the young bilingual learners in this study could identify and use specific strategies to facilitate their comprehension. While the younger students (first graders) needed a greater amount of assistance to verbalize their thinking processes, they, along with their second and third grade native-English-speaking and native Spanish-speaking peers, were able to participate in the think-aloud protocol and monitor and adjust their reading. After about 20 minutes of teacher-mediated practice, both English- and Spanish-speaking students were able to apply their knowledge of vocabulary, rhyme, and story structure to texts and to verbalize the strategies that they were using (pausing, self-questioning, rereading, and using context).

The evidence from this study suggests that there is no need to delay explicit strategy instruction for young bilingual learners. The patterns seen in the think-aloud dialogs indicate that early elementary students can be taught to explicitly employ metacognitive and metalinguistic strategies to comprehend texts. A significant implication is that teachers of English language learners in today's K–12 classrooms need to be able to teach students strategies that will help them read effectively, in two languages if possible. This kind of reading instruction can be helpful in meeting the demands of the No Child Left Behind Act, while at the same time working to alleviate the gap in academic achievement between English language learners and native English speakers.

References

Anderson, N. (1999). *Exploring second language reading: Issues and strategies.* Boston, MA: Heinle & Heinle.

Birch, B. (2002). *English L2 reading: Getting to the bottom.* Mahwah, NJ: Lawrence Erlbaum.

Chamot, A. U., & O'Malley, J. M. (1994). *The CALLA handbook.* Reading, MA: Addison-Wesley.

Grabe, W., & Stoller, F. L. (2002). *Teaching and researching reading.* Harlow, England: Pearson Education.

Jiménez, R. (1997). The strategic reading abilities and potential of five low-literacy Latina/o readers in middle school. *Reading Research Quarterly, 32(*3), 224-244.

Kamhi-Stein, L. (1998). Profiles of underprepared second-language learners. *Journal of Adolescent and Adult Literacy, 48*(8). 610-620.

Lavadenz, M. (2000, April). *Metacognition and biliteracy.* Paper presented at the annual meeting of the American Educational Research Association. New Orleans, LA.

Winograd, P., & Hare, V. C. (1988). Direct instruction of reading comprehension strategies: The nature of teacher explanation. In C. E. Weinstein, E. T. Goetz, & P. A. Alexander (Eds.), *Learning and study strategies: Issues in assessment, instruction, and evaluation* (pp. 121-139). San Diego, CA: Academic Press.