

Students “DO” Process: Bilingual Students’ Interactions in a Small Cooperative Learning Reading Group

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Abstract

This study explores the talk of four native Spanish-speaking third-grade readers as they write an answer to a reading comprehension question in Spanish. The students are from a cooperative learning group in a bilingual classroom that uses a cooperative learning based language arts program called Cooperative Integrated Reading and Composition (Stevens, Madden, Slavin, & Famish, 1987). A conversation analysis based examination of the talk revealed the multitude of reading and conversational strategies used by the students as they composed an answer. These strategies included referring back to the written text, referring to previous questions, story sequencing, and referring to illustrations in the text. In addition, our examination show how the students take a position on story interpretation and use evidence to support their position. The role of the adult observer is seen to be critical in sustaining, not directing, the discussion at key points. The study illustrates that for these students the "right" answer is the result of process. The process includes the use of numerous resources that the students are adept at manipulating to support their positions. This research represents an effort to fill a gap in the literature and knowledge on what it means for a language minority student to be schooled in a cooperative learning environment.

Introduction

The performance gap between linguistic and ethnic minority students and Euro-American mainstream students in schools is well documented (Durán, 1983; Walker: 1987; Pallas, Natriello, & McDill, 1989; DeLaRosa & Maw, 1990; Valencia, 1991). Two conclusions that these studies have made are that 1) ethnic and language minority students exhibit depressed educational outcomes and 2) the ethnic and language minority student population is growing. Recent efforts to improve the educational outcomes for

language minority students have focused on developing optimal instructional strategies for this population.

One instructional strategy which shows promise for improving the academic outcomes of language minority students but lacks ethnographic study is the implementation of cooperative learning formats. Research indicates that monolingual students working together cooperatively often show positive effects on such outcomes as academic achievement, interethnic group relations, self-esteem, appreciation of class or subject, acceptance of mainstreamed academically handicapped students, as well as general acceptance of others (Slavin, 1981). In addition, positive effects appear equally and frequently in three domains: (a) in elementary and secondary schools, (b) in urban, suburban, and rural schools and (c) in subjects such as mathematics, language arts, social studies, science, and reading. Most studies show that high, average and low achievers gain equally from the cooperative experience (Slavin, 1981). Further, African-Americans and Mexican-American students tend to display outstanding achievement gains (Slavin, 1981; Kagan, 1986).

Despite the positive results with African- and Mexican-American students, research indicates that the use of cooperative learning in bilingual settings is sparse (Jacob & Mattson, 1990). As well, there is a limited amount of research concerning language minority students placed in cooperative group settings (Slavin, 1990; Merino, 1991). The following reports shed light on some of the more recent efforts in this area.

One focus of research into the use of cooperative learning with language minority students has been on different aspects of classroom life (Prado-Olmos, 1993; Prado-Olmos, 1992; Prado-Olmos, Garcia, & Durán, 1991; and Calderón, Tinajero, & Hertz-Lazarowitz, 1990). Calderón et al (1990) have explored whole classroom structures and teacher behavior and report that, as a result of involvement in bilingual cooperative learning, classroom and task structures as well as teacher behaviors change over time from traditional, independent, unilateral and teaching-dominated to non-traditional, cooperative, multi-lateral and student-directed.

In addition to classroom life, another focus of research has been on the interaction of students in cooperative reading activities. This research has begun to describe the nature of the student interaction in

cooperative learning environments and the ways in which students participate in and manage their interaction. A major finding has been that language minority students participate differentially in cooperative learning reading activities depending upon their needs for assistance from others in completing reading tasks (Prado-Olmos, Garcia, & Durán, 1991). In addition, language minority student interactions are characterized by identifiable patterns which make up a participation structure (Philips, 1983) that supports and constrains student participation and behavior (Prado-Olmos, 1992). Furthermore, the role of the classroom teacher within the cooperative learning curriculum is critical to promoting and developing student interaction (Prado-Olmos, 1993).

The study reported here extends this latter body of research focused on student interactions in cooperative learning environments. In this paper we describe and examine the interaction of one group of readers engaged in a cooperative reading activity in Spanish. Specifically, we examine the interaction as the students put to paper an answer to a reading comprehension question. As a result of the examination of one learning activity, we hope to begin to lay a foundation for finding principles of interaction constructed as a social phenomenon versus as a uniquely achieved one. Through close analyses of what students actually do, we can begin to isolate mechanisms of natural conversation and interaction and then identify features perhaps heretofore unnoticed. These novel features can first be examined for their function in the interaction under scrutiny and, second, be noted for comparison with features identified in both previous and subsequent research on interaction in like and unlike situations.

This study draws upon a particular body of classroom interaction research that explores the procedural nature of interactions. Much of the early work focused on classroom interactions as static realizations of preset formats (Sinclair &

¹The study reported here was a satellite study affiliated with a recently completed 5 year project that examined the use of cooperative learning in elementary bilingual Spanish-English classrooms. The project explored the implementation of an elementary reading program called Cooperative Integrated Reading and Composition (Stevens, Madden, Slavin, & Famish, 1987) with bilingual students and was supported by The Center for Research on Effective Education for Disadvantaged Students at Johns Hopkins University.

Coulthard, 1975; Bellack, Human, Smith & Kliebar, 1986). Influenced by Gumperz (1986), Green (1983), Cazden (1986), Heap (1984), and Hustler and Payne (1985), recent developments in the field have illuminated the procedural nature of interactions. Thus, students are seen as constructing their activity as much as accomplishing it. Most of this work has looked at interactions of monolingual speakers of English (but see Cazden, 1986; Wong-Fillmore, 1982). Given the population composition of our classrooms today, it behooves us to look at other language groups (see Roseberry, Warren, and Conant, 1990) as well as other cultural groups (see Philips, 1983).

Indeed, work by Smith and Lerner (1992) and Szymanski and Durán (1992) explores the nature of interactions between bilingual students engaged in reading tasks in cooperative classrooms. These researchers describe the students' constructed activity through an analysis of their conversational interaction as they engage in various CIRC activities. Smith and Lerner (1992) examine opportunities for participation in whole class, small group, and partner activities and find that these different configurations provide different opportunities for participation. As would be expected, whole class interaction often follows the recognized question-response-evaluation format identified by Sinclair and Coulthard (1975) and Mehan (1979). In contrast, small group and partner configurations provide different opportunities for interaction and "instructed interaction routines" (see Smith and Lerner, 1992) are readily learned and applied by students. Szymanski & Durán (1992) report that the students' discussion in the cooperative learning curriculum is supported and enhanced by instructional techniques and resources designed to mediate the group's discussion. One such resource supporting students' discussion is the use of a pad of paper to facilitate peer negotiations over language forms; the student writes an unfamiliar word down on the pad and has a partner check its spelling. This is an example of a set of actions that the teacher has instructed the students to do. The partner, then, has a number of resources that she can call on to check the spelling of a word: herself, other members of the group, the original text, the dictionary, and finally a human expert (usually the teacher or tutor). "Discussion" is supported in that the partner collaborates on determining the spelling with the student who first initiated the

trouble source as well as with other resources available in the classroom. Another technique that supports discussion is the provision of a single sheet of paper on which the whole group needs to produce a single written answer to each story comprehension question.

The study reported here builds from this recent work on interaction analysis in the classroom and pursues study of cooperative learning interactions of language minority students. Specifically, this study explores how students respond to one story comprehension question and subsequently collaborate on putting one answer on paper. The questions which guide this research are:

- How do language minority students, working in a cooperative learning group, proceed in answering reading comprehension questions?
- What conversational work do students engage in when answering reading comprehension questions?
- What resources are employed in responding to reading comprehension questions?
- What happens when a student's response is tagged as incorrect by other members of the group?

Method

This analysis considers the children's use of language in the interactional context of the peer group. Following Goodwin and Goodwin (1993), this study combines language use and context with other interactional phenomena to understand how activity is achieved when two or more people interact. "Activity" is an umbrella term encompassing many different interactional phenomena such as prosody and intonation, lexicon, syntax, body movement, and eye gaze. Goodwin and Goodwin (1993) state that "activity knits an array of heterogeneous phenomena ... into a coherent course of collaborative action" (p. 5). An analysis of activity asks the questions, what does the array look like? and how does the knitting occur? This analysis asks how a peer group is able to

interactionally knit their actions into the concerted activity of coming to agreement on the answer to a story comprehension question.

The methodology of Conversation Analysis (CA) enables the contextual analyses of activity through a principled examination of what the participants are doing and how they are doing it. Begun in the 1960's by Harvey Sacks as a natural observational discipline, CA looks at the details of naturally occurring events and describes the methodical practices of the parties who produce the interaction as they are producing it. One of the many strengths of the CA methodology is its examination of recorded interaction; thus its findings about particular activities are grounded in the realized actions of the participants.

The CA methodology can be effectively applied to the cooperative learning context for three reasons: it focuses on social organization, it examines verbally and nonverbally realized action, and it considers what is relevant for the participants. CA assumes an underlying social organization that can be found in the participants' interactions. This approach is consistent with the pedagogical notion that in order for students to more effectively engage in learning activity, they must participate in the social organization of the classroom. In addition to focusing on social organization, CA closely examines both verbally and nonverbally realized action in much the same way as Goodwin and Goodwin have examined activity. In the classroom, this focus allows us to see interactional processes and how it is that academic activity is achieved. The third reason that CA methodology is effective in the cooperative learning context is that CA is concerned with the ways in which interaction is relevant for the participants; that is, CA is concerned with discerning the participants' interests when interacting. This latter premise allows for the study of children's interaction to focus on classroom organization as it is relevant for the children, not on adult expectations imposed on the interactional activity.

CA methodology has been employed in research on traditional classroom settings by very few researchers. As mentioned above, Mehan (1979) applied CA to the analysis of whole-class teacher-led lessons and found one overriding social interactional organization to the activity, the Initiation-Response-Evaluation sequence between a teacher and student. In a different academic context, that of the

formal academic presentation at the university level, Kayfetz and Smith (1986) found that the Initiation-Response-Evaluation paradigm was in fact a more complex and interactive sequence than previous research had noted. The CA methodology enabled the researchers to identify cycles of question-answer sequences and the participants' sensitivity to ongoing sequences of action as well as to microsecond pauses.

Now, as more and more innovative classroom organizations are being implemented, CA research in the classroom can focus on the organization and systematic practices of students' peer learning. Through an understanding of the way in which students do the process of learning activities, we may better understand learning, pedagogy, and social organization of learning contexts. This study applies the CA methodology to native Spanish-speaking students' reading and writing activity within the cooperative learning peer group.

Data

As part of the larger study mentioned above, cooperative learning reading activities were systematically videotaped. For the purpose of this study, a six-minute segment encompassing a complete question-answering activity was identified, transcribed and analyzed in order to explore the questions outlined.

Four Spanish-speaking 3rd-grade students formed a cooperative reading group within a larger homogeneous Spanish reading group in a Southern California elementary school Spanish/English bilingual classroom. These students were two boys, Emilio and Raúl, and two girls, Julia and Xochitl, between 9 and 10 years of age. An adult researcher was also present in the classroom. The researcher worked closely with the cooperative group and, at times, became a participant in the group discussions.

The cooperative learning reading program (CIRC) followed at the elementary school has a set program of activities. The group of readers participating in the cooperative learning reading activity under investigation spoke Spanish throughout all the activities. The reading activity is guided by "Treasure Hunts", a set of story-related tasks which, upon completion, provide some sort of treasure (in the form of the moral or point of the reading passage, in the learning of new vocabulary, or in the opportunity to discuss and pursue new

ideas, etc.). The Treasure Hunt divides a story into two parts, with reading comprehension questions and a prediction question for the first part and reading comprehension questions for the second part.

As is the case with many curricular implementations, the classroom teacher in this data adapted the program of activities to fit her ideas of teaching and learning (Prado-Olmos, 1993). In this particular classroom the focus of student activity was on the production of answers to story comprehension questions. The students engaged in activities that would enable them to complete that primary goal. Students read the first or second half of the story, engaged in a group discussion of the reading comprehension questions sporadically, and individually wrote answers to the reading comprehension questions. Prado-Olmos (1993) describes the discussion of reading comprehension questions as an exchange of roles with limited opportunities for talk that students adopted to facilitate completion of the activity smoothly and efficiently. Prado-Olmos (1994) also describes the participation strategies that governed the talk during the phase of writing answers to the reading comprehension questions as less restrictive in terms of opportunities and parameters for talk. Indeed, talk during the writing activity more closely resembles "discussion" than the talk during the "discussion activity". This paper looks closely at an exchange that occurred during the more discussion-like activity.

In this particular cycle of CIRC activities, the students read the first half of the story, discussed the reading comprehension questions and prediction question in the small group, individually wrote answers to the reading comprehension questions, read the second half of the story, discussed the reading comprehension questions in the small group and engaged in individually writing answers to the reading comprehension questions. The segment described and analyzed here began with the "discussion" segment of the Treasure Hunt activities. The bulk of the interactive work began with the onset of the writing component of answering reading comprehension questions. The negotiation of the answer to the reading comprehension question, and therefore the discussion, ensues when the answer is to be written down.

The following is a brief description of the story the students read. "Los dos picapedreros" (The Two Rock Diggers) is the story of two brothers, Older Brother and Younger Brother, who come

upon an old woman in the forest. After the two brothers aid the old woman, she transforms into the Queen of The Forest and rewards them with seven wishes. Older Brother is delighted because he is unhappy as a rock digger and has always wanted to be powerful. Younger Brother is content with his life and declines the wishes. The Queen of The Forest insists that Younger Brother keep at least one wish and Older Brother takes the other six. Older Brother proceeds to change from one thing to another, always seeking to be the most powerful thing in the world, until he finally ends up as a tuck in the forest. One day, Older Brother hears noises in the forest that signal the approach of the rock diggers. He calls to Younger Brother for help and at one point suggests that Younger Brother build a fence to protect Older Brother’s rock from the rock diggers. Younger Brother instead uses his wish to transform Older Brother back to what he was before, a humble rock digger. In the end, the two brothers live together at the edge of the forest, content as humble rock diggers.

Data Analysis

The analysis begins during the pre-writing “discussion” phase of the Treasure Hunt activity at the point when Emilio provides an answer to the fourth question on the Treasure Hunt: ¿Qué hizo el Hermano Menor para ayudar al Hermano Mayor? (What did Younger Brother do to help Older Brother?). According to the text, Younger Brother used his wish to transform Older Brother from a rock to a rock digger. Emilio gives this answer when the students are providing answers in the discussion activity; however, he does not provide this answer in the writing activity. His different answer in the writing phase of the activity then provides an interactional place for discussion in the small group. Participants in the interaction include all the group members: Xochitl, Julia, Raúl, Emilio and Paloma, the adult researcher.

Discussion in the Pre-writing Phase

As a group, the children in this analysis preview the question and a possible candidate answer together in the initial phase of the activity “answering reading comprehension questions”. The structure of this pre-writing “discussion” mimics the whole class teacher-led instructional format: students’ attention is focused, the

question is read, a student bids for a turn to answer the question, a turn is allocated, the student answers, and an evaluation of the answer is given. (Refer to the Appendix for the transcription symbols.)

Pre-Writing Phase: “Discussing the answer to question number four”

- 1 ((Julia looks at Emilio. Emilio looks at Julia blankly.))
- 2 X: ¿estás escuchando? / are you listening?
- 3 ((Emilio nods at Xochitl. Raúl watches them.))
- 4 J: okay, el número cuatro. / okay, number four. question 4))
- 6 E: ¿que hizo el Hermano Menor para ayudar al Hermano Mayor?/ What did Younger Brother do to help Older Brother?
- 7 ((Emilio looks up at the others. Xochitl yawns, Raúl looks at the book, and Julia yawns. Emilio raises his hand and waves it around.))
- 8 E: uh, oh-
- 9 X: dale/go ahead
- 10 E: el Hermano Menor... el Hermano Menor... el Hermano Menor/... Younger Brother... Younger Brother... Younger Brother
- 11 usó su deseo para el Hermano Mayor para que será/ used his wish so Older Brother so that he will be
- 12 lo que era antes. /what he was before.
- 13 J: sí./yes.
- 14 P: ¿verdad?/ right?

15 J: ((starts reading the last question while Emilio turns to Paloma to talk))

On line 1, Emilio and Julia exchange blank looks, perhaps alluding to their lack of direction in the "discussion" activity. Xochitl takes the opportunity to move the activity along by focusing their attention on line 2. Xochitl's question "estás escuchando" (are you listening?) implicitly commands them to listen as it projects some next verbal action, perhaps the outloud reading of the next question. Julia then marks the group's place in the activity on line 4 with the announcement, "el número cuatro" (number four); again this introduces the next relevant action, addressing the fourth question.

Emilio, Julia's partner, takes the turn created by Xochitl and Emilio for the outloud reading of the question on line 6. Emilio reads the question aloud for the entire group: "¿Qué hizo el Hermano Menor para ayudar al Hermano Mayor?" (What did Younger Brother do to help Older Brother?). After reading the question, Emilio plays the role of the teacher and looks up to see if anyone is bidding to answer the question. When there is no bid, Emilio assumes a student posture and raises his hand, demonstrating his desire to answer the question. Like the teacher-led whole class format, Emilio waits for a turn to be allocated before he speaks; he holds his answer until Xochitl grants him the turn to speak on line 9, "dale" (go ahead). Once Emilio has given his candidate answer, it is now available for "discussion" by the group members. In this case, the candidate answer accurately retells the story events, and Julia accepts it without hesitation. Since the candidate answer is perceived as "correct" by the group, Paloma's attempt to spark discussion on line 14, "¿verdad?" (right?), is dismissed as irrelevant, and the students continue the "discussion" activity with question number five.

Discussion in the Writing Phase

Ten minutes later, the students are individually engaged in writing the answers to the questions they have already seen in the pre-writing discussion phase. Here, the students' discussion about the fourth reading comprehension question involves an extended and

complex interaction of both academic and conversational “work”. A sequential analysis of the interaction shows the conversational and academic resources the participants use in answering a reading comprehension question.

The discussion episode evolves from Emilio’s outloud reading of the fourth question. While he may well be reading the question for himself, the outloud production of the reading makes available for all to hear his place in the activity. When Emilio receives no response after the reading of the question, he proceeds to repeat it, this time providing a candidate answer. The verbalization of the question warrants neither an objection nor an agreement response on the part of the group’s members; however, the candidate answer does make relevant an evaluation response.

Writing Phase: “Writing down the answer to question number four”

- 16 ((Julia, Emilio and Xochitl all working. Raúl has been very distracted. Now he slouches in his chair, pulls book up in front of him on one end and hides his face behind it.))
- 17 E: ((reads)) ¿qué hizo el Hermano Menor para ayudar el Hermano Mayor?! what did Younger Brother do to help the Older Brother?
- 18 E: ((yawns and stretches, then turns to Paloma))
- 19 E: ¿qué hizo el Hermano Menor para ayudar el Hermano Mayor?! what did Younger Brother do to help Older Brother?
- 20 el Hermano Menor hizo una cabaña granda para que! Younger Brother built a big hut in order to
- 21 proteger la piedra del Hermano Mayor.! protect Older Brother’s rock.

- 22 P: [((mouths 'no'))]
 23 X: [no]
 24 E: sí: / yes
 25 X: le dio, le dio su deseo, su deseo para que se, para que se../he gave him, he gave him his wish, his wish so that he, so that he...
 26 E: ((shakes his head 'no' then he looks to the TH sheet))
 27 E: ((continues to shake his head 'no'))
 28 P: ((nods head)) H::: crees que está bien
 30 ¿último deseo? el HERMANO MAYOR... con SU: último deseo último/last wish? Older Brother... with his last wish last last one
 31 E: ((shakes his finger at Xochitl as he speaks, Xochitl wags her finger back at him))
 32 X: último. y el Hermano Menor tenía un deseo. el Hermano Menor/last. and Younger Brother had a wish. Younger Brother helped him by giving him his wish so that, so that he changed
 34 otra vez en lo que era antes /again to what he was before.
 35 E: ((shakes his head no))
 36 X: acabas de leer el cuento. /You just finished/finish reading the story
 37 E: ((puts his head in his hands as if very exasperated.))
 38 E: yo sé pero, allí dice, cómo el Hermano Menor... qué hizo/ I know but, there it says, how Younger Brother... what did

- 39 el Hermano Menor para ayudar al Hermano Mayor? el
Hermano Menor /Younger Brother do to help Older
Brother? Younger Brother
- 40 hizo una cabaña [para que...] /built a hut [so that...]
- 41 X: [((begins to shake head 'no'))]
- 42 P: no
- 43 X: no:
- 44 (.)
- 45 P: no, busca en el libro.! no, look in the book.
- 46 R: aquí está, aquí está donde dice. /here it is, here's where it
says.
- 47 R: ((puts the book down on the desk and shows the page to
the group))
- 48 X: pero no dice que él hizo una cabaña. /but it doesn't say
that he built a hut.
- 49 R: ¿una cabaña? no / a hut? No

Xochitl engages the discussion with Emilio on line 23, with a simple response, "no". Emilio retorts with a contrary "sí" (yes) on line 24 which places the burden of proof on Xochitl; she must justify her disagreement with his answer. Xochitl begins to produce her candidate answer on line 25, but she is interrupted when Emilio backtracks to read the second question: "¿En qué se convirtió el Hermano Mayor con su último deseo?" (What did Older Brother change into with his last wish?) Emilio stresses his pronunciation of "Hermano Mayor" (Older Brother) on line 30, locating his understanding as: what Older Brother changed into with his last wish has something to do with the fourth question: what did Younger Brother do to help Older Brother? Recall that Older Brother used his last wish to become a rock. Emilio repeats

"último" (last/last one) on line 30 giving emphasis to the fact that Older Brother had no wishes left.

Xochitl treats Emilio's display of understanding as a source of trouble which originates in the issue of wishes; she shadows Emilio on line 32 with her repetition of "último" (last (wish)). In her utterance of "último", Xochitl does not explicitly tell Emilio that he is wrong, but locates the source of her trouble with his statement. She then adds that Younger Brother had a wish and proposes another candidate answer: Younger Brother gave his wish to change Older Brother back into what he was before. Her candidate answer is met with opposition from Emilio as he shakes his head no.

Next, Xochitl refers to the story text. On line 36, Xochitl makes a dual functioning statement: "acabas de leer el cuento" (you just read the story). This is a turning point in the discussion. Whereas the acceptable proof in the initial discussion is grounded in the students' memory of the text events, Xochitl's reference to the story shifts the acceptable proof to the written text itself. Xochitl's utterance both refers to the authority from which her candidate answer originated, and it places a strong burden of proof on Emilio to use the text to support his answer. On line 38, Emilio acknowledges this shift and also refers to the written words, albeit of the story comprehension question he is trying to answer. Emilio repetition of his inaccurate candidate answer on line 39-40 and the subsequent negative evaluations from Paloma and Xochitl renew the discussion; future proof must lie in the story text.

On line 45, Paloma directs Emilio to look in the book, "busca en el libro" and a search for the actual words in the text ensues. First, on line 46, Raúl announces that he has located the page where the answer is. Xochitl quickly adds to Raúl's statement but clarifying that it does not say he made a hut; Raúl subsequently agrees with her clarification.

As Emilio continues to look for the written words that support his candidate answer, Paloma initiates a sequence of turns that aims to reconstruct the order of the story events.

- 54 P: el Hermano Mayor usó su último deseo para ser piedra, ¿no? /Older Brother used his last wish to become a rock, right?
- 55 X: [uh huh]
- 56 R: [uh huh]
- 57 R: aquí está la piedra / here is the rock ((he shows the page that illustrates this))
- 58 X: después, este, después el Hermano Menor le dio su deseo /then, uhm, then Younger Brother gave him his wish
- 59 para que se convirtió otra vez en lo que era. /so that he would change again into what he was.
- 60 E: sí, pero yo- lo que dice. / yes but I- what it says
- 61 P: sí, pero no es VERDAD. ¿qué dice en EL CUENTO? ¿dónde está la cabaña? /yes, but it isn't TRUE. what does it say in THE STORY? where is the hut?
- 62 ((10 seconds pause in the conversation. Emilio starts flipping through the story. Raúl gets up and leaves the table. Emilio reads various parts of the story looking for the information. Here, the student notifies Paloma that the microphones have been disconnected from the mixer))
- 63 X: pero no se la construye. ((3 full intonation units inaudible)) léela bien. /but he doesn't build it. read it carefully.
- 64 léela bien. /read it carefully.

- 65 E: =mira es la última página y eso es lo que dice. /look, it's the last page and that is what it says.
- 66 X: Pues, léelo, en dónde dice de la cabaña? /well, read it, where does it tell about the hut?
- 67 (3.0) ((Emilio moves finger across text as he reads silently to himself))
- 68 P: qué dice? / what does it say? ((as she sits down))

On line 54, Paloma establishes that Older Brother used his last wish to be a rock. Both Xochitl and Raúl agree with this event and Raúl even shows the group the picture that illustrates this. Xochitl continues by repeating her candidate answer: Younger Brother gave his wish so that Older Brother would change back to what he was. While Emilio agrees with this depiction of the story events on line 60, he indicates that the written text has led him to infer something different.

Again Paloma redirects Emilio to the text on line 61: "¿qué dice en EL CUENTO?" (What does the story say?). Specifically, she asks him to find where it says "la cabaña" (the hut). Xochitl shadows Paloma, on line 64, telling him to read the text carefully. Finally, on line 65, Emilio locates the page containing the words that support his candidate answer. Xochitl then asks him to read it aloud and reiterates that the group is expecting some mention of a "cabaña" (hut) (line 66): "¿en dónde dice de la cabaña?" (where does it tell about the hut?)

It is interesting to note the modeling role Paloma plays throughout the book search segment of this discussion (lines 42 to 68). Paloma's influence as a model discussant can best be seen in the action sequences between Paloma and Xochitl. On line 42, Paloma opposes Emilio answer with a "no" and is shadowed by Xochitl's "no" on line 43. When Paloma begins to reconstruct the story events on line 54, again her statement is seconded immediately by Xochitl on line 55. Then Paloma redirects Emilio to look at the story on line 61; seconds later Xochitl mimics Paloma with the command "léela bien" (read it carefully) (line 64). Once Emilio

finds the page, Xochitl reformulates Paloma's initial request (line 45) to find "la cabaña" written in the text. On line 66, Xochitl asks "¿en dónde dice de la cabaña?" (where does it tell about the hut?) and is in turn shadowed by Paloma on line 68, "¿qué dice" (what does it say?) as she gets up from the table due to some trouble with the microphones. The shift in the model-shadow sequences in the Paloma-Xochitl order (lines 42-3, 54-5, 61-4) to Xochitl-Paloma order (lines 66-8) shows the powerful interactional resource of an adult group member.

Paloma's question (line 68) acts as an implicit command for Emilio to support his understanding by referring to the text. Once Emilio finds the written words which support his candidate answer, he reads aloud, and then the group enters into a discussion about evidence and its validity.

- 69 E: ((finds a space in the book where Older Brother asks Younger Brother to build something around him. He reads the passage.))
- 70 E: ((reads)) tienes que construir a mi alrededor una cerca alta. /you have to build a tall fence around me.
- 71 E: ((looks at Xochitl))
- 72 X: una cerca alta! a tall fence
- 73 E: ((continues reading)) ... y fuerte para proteja de los otros picapedreros. /and strong for protection from the other rockworkers
- 74 X: éste está diciendo a éste / this one is talking to this one
- 75 X: ((points to a picture in Emilio book of Older Brother in the rock and Younger Brother standing by the rock))
- 76 E: por eso / exactly
- 77 X: ¿y se la hizo? ¿se la hizo? / and he built it? he built it?
- 78 E: sí/yes

- 79 X: no
- 80 R: no:.
- 81 X: no se la hizo, (1.0) no se la hizo / he didn't build it, he didn't build it
- 82 (.) ((Paloma helps Julia with her microphone))
- 83 E: por qué no está dibujado tú dices /because it isn't drawn you say
- 84 X: =no se la hizo / he didn't build it
- 85 E: come o:n:.
- 86 P: ¿qué dice? / what does it say?
- 87 R: no se la hizo, porque después el Hermano Menor le dio su /he didn't build it, because later Younger Brother gave him his
- 88 dese::o:, para ser picapedrero. /wish, to be a rockworker.
- 89 E: ((flips the book's pages back and forth))
- 90 E: ¿dónde está él? ¿dónde está él? / where is he? where is he?
- 91 X: es que no le entiendes que dice/it's like you don't understand what it says
- 92 E: [sí,] te entiendo pero¿, dónde está dice que ya se convirtió? /yes, I understand you but, where does it say that he already changed?
- 93 R: [ayyy] ((he puts his head on his desk))
- 94 X: ((stands up))
- 95 X: mira, aquí, no más que abajo dónde estás. /look, here, just below where you are.

- 96 X: ((points to a section in the book and sits on her desk))
 97 P: ¿qué dice aquí? / what does it say here? ((points to the same section in the book))
 98 ((Emilio starts to read a sentence))
 99 P: no, aquí, ((reads)) y el Hermano Menor pidió con cariño su único deseo. /no, here, and the Younger Brother lovingly asked for his last wish.
 100 P: ((looks up at Emilio, turns his book back to him, smiles))
 101 E: ((smiles and falls back in his chair))
 102 R: ¿dije que no?! I said so didn't I?
 103 ((B looks at his TH. Raúl.l looks at book and Julia starts writing))
 104 (6.0)
 105 X: no lo entendía como estaba. parece que no había leído el cuento. /he didn't understand how it was. it's like he hadn't read the story.

On line 70, Emilio reads the phrase which he believes illustrates the accuracy of his candidate answer; “una cerca alta” (a tall fence) is provided as Emilio evidence that Younger Brother built a “cabaña” (a hut). Emilio then looks at Xochitl to see how his evidence is received. Xochitl repeats “una cerca alta” (a tall fence) and in doing so emphasizes that he still has not proven that “cabaña” (hut) was in the text. Emilio shows he understands that Xochitl is unconvinced when he continues to read for more evidence (line 73).

In search of more evidence, Xochitl begins to look at the pictorial evidence provided by the story illustrations (line 74). Xochitl points out that in the quote Emilio has read, Older Brother is talking to Younger Brother. Emilio agrees with her statement (line 76), but Xochitl remains unclear as to whether the Younger Brother actually

built a structure, fence, hut or whatever to help Older Brother (line 77). On line 83, Emilio shows he understands that she is unconvinced because the hut is not found in the story illustrations. When Xochitl firmly states "no se la hizo" (he didn't build it²), on line 84, Emilio only recourse is a token plea for consideration, "come on" (line 85).

Raúl's candidate answer, on line 87, enables Emilio to shift the burden of proof. Instead of looking for the picture of the hut, Emilio attempts to prove his answer is right by disproving Raúl's answer, that Older Brother changed to a "picapedrero" (rock worker). On line 90, Emilio asks Raúl to locate the picture of the rock worker. When this is not available, Emilio returns to his previous argument (line 92); he asks for evidence that Older Brother changed already.

To put closure to the discussion about evidence, Xochitl locates a passage that supports her candidate answer and directs everyone to look at it (line 95). Paloma seconds Xochitl (line 97) and then proceeds to read the phrase, "el Hermano Menor pidió con cariño su único deseo" (Younger Brother lovingly asked for his last wish), when Emilio is unable to find it himself (line 99). It is important to note the ambiguity in this piece of evidence. While it carries strength because it is written in the story, the sentence does not describe what Younger Brother's last wish was. The paradox in Paloma's turn on line 99 lies on the one hand in her status in the group as an authority figure, and on the other in the sentence's ambiguity. Clearly, Paloma's authority overrides the unclear evidence she presents, for Emilio steps out of the discussion on line 101 by falling back in his chair, physically removing himself from the "center ring".

In a post-evaluation, Raúl tells Emilio that he told him he was wrong from the beginning (line 102) and Xochitl recaps the discussion stating that Emilio did not understand how it was; it was as if he had not read the story.

Conclusion

Analyses of the videotaped interaction reveal a rich and detailed sequence of events that lead to the construction of one answer for

²The referent for the pronoun *it* is the hut.

one student. The interaction reveals the incredible amount of knowledge of reading and higher order thinking skills students use in constructing answers to story-related comprehension questions. The students display concern with what the “right” answer is; they display intimate knowledge of the form and structure of stories; and they readily use numerous resources in their environment to support their answers and perspectives.

The students’ concern with formulating a “right” answer is highlighted by the fact that the entire sequence of interaction is prompted by the erroneous conclusion of one student. One student overhears the erroneous answer and her intervention fuels an extended interaction.

The students’ interaction vividly illustrates that the “right” answer is the result of process. These students’ process was shown to include numerous resources: themselves, the reading comprehension questions, the text, the writing in the book, the illustrations in the book, and general or schematic knowledge of stories and their development, knowledge of how stories are presented in books. Students are very adept in utilizing the resources available in that they not only use what is in the story as evidence to support their positions, but they also use what is not in the story, their inferences, as evidence.

Indeed, a key element of the process is that the students take a position and actively support it. They, in a sense, “dig in”, take a position, and manipulate the resources and evidence in the environment to support that position.

Thus, students reveal an intimate knowledge of stories, their form and structure, and they especially have intimate knowledge of basal readers. As a consequence, this knowledge is available for use in the accomplishment of academic tasks related to their reading.

Furthermore, the support and assistance of the adult researcher/teacher is critical in sustaining the interaction. Prado-Olmos (1993) has documented the importance of active teacher support in building and sustaining group work. In this example, the researcher/teacher entered the process at key points with small bits of talk that kept the interaction in process. Indeed, in the end, it is the guidance of the researcher/teacher, prompted by students’ inability to resolve the question, that ends the conflict.

This research is an initial step to filling a gap in the literature and knowledge on what it means for a language minority student to be schooled in a cooperative learning environment. Knowledge of the performance of language minority students on academic tasks in the dominant language can only enhance our endeavors to provide effective and quality education. In a very ambitious light, the data reported here inform many aspects of our educational efforts.

First, it vividly illustrates the possibilities of instructional strategies like cooperative learning to foster student interaction and enhance language development and critical thinking. The students observed in this study were typical students in this classroom. None had been classified as gifted or in any way labeled as anything other than average students. This study shows that students can engage in meaningful discussion given the necessary models and support. It also informs teachers that their role as instructor is and will always remain critical to student learning. While students can be taught to monitor and sustain their own learning, the teacher remains an active participant in that process. The teacher may be transformed from knowledge giver to knowledge mediator (Calderón & Hertz-Lazarowitz, in press), but the teacher is still absolutely necessary to the success of instruction.

Second, it is important to point out that this interaction sequence occurred outside of the activity where discussion was planned and expected. Instead of happening in the discussion activity, the interaction happened when the students were putting their answers down on paper. This finding caused the classroom teacher of these students to reevaluate the discussion activity and to find ways in which to actively support "discussion" in that setting (Prado-Olmos, 1993; Durán & Szymanski, 1993). This type of consideration will most likely arise for any teacher implementing a new instructional strategy. Simply because the strategy indicates an outcome should occur does not guarantee it will occur (i.e., students "discuss" during the discussion activity). Teachers need to assess and evaluate how a program is being enacted in the classroom and decide whether or not the enactment is what the teacher desires or not. Instructional programs, like cooperative learning, are tools to be used, and as tools they can have many forms of use.

Third, beyond considerations of specific instructional programs, the results of our research can also provide information for

curricular decisions on general materials and general tasks: if we wish to teach critical and sound elaborative thinking skills, we need to design materials and assessments which allow the students to explore and discover resources within themselves and the environment. Furthermore, the structure of activities within classrooms needs to support and even create the environment which promotes meaningful learning. It would be fruitful for future research to focus on identifying the activity structures and materials that lead to successful learning experiences and outcomes for ethnic and linguistic minority students.

Lastly, while this research informs us as to basic social processes in academic contexts, numerous anecdotes and myths related to student performance in group work exist; the need for data is crucial. Future work should be directed to this area, particularly for bilingual/bicultural and multicultural settings.

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Appendix

Transcription conventions

slash	/ sí/yes	separates original transcript from its translation, also denotes alternate readings
period	.	sentence-final downward intonation
comma	,	clause-final downward intonation
question mark	?	sentence-final rising intonation
colon	:	elongated pronunciation
dash	-	word or sound cut off
equal sign	=	latching speech
period within parentheses	(.)	micropause, longer pauses shown in seconds and tenths of a seconds, i.e. (1.0)
capitals	NO	loud pronunciation
square brackets	[]	overlapping speech
double parentheses	(())	transcriber's comments