

**Assessment of Transfer in a Bilingual
Cooperative Learning Curriculum**

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CONTENTS

Summary of Findings and Implications.....	v
Bilingual Students' Question-Answering: Written Answers and Classroom Interaction.....	1
<i>Margaret H. Szymanski and Richard P. Durán</i>	
Assessing Framing of Literacy Activity Among Bilingual Students.....	31
<i>Richard P. Durán and Margaret H. Szymanski</i>	

ASSESSMENT OF TRANSFER IN A BILINGUAL COOPERATIVE LEARNING CURRICULUM

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Summary of Findings and Implications

National attention on reformulating assessments to better serve the developmental potential of students and their educational outcomes has profound implications for teaching and assessment of students from non-English-speaking backgrounds. These students are served by a wide variety of educational and language service programs, but we lack assessment tools to chart students' growth in language skills that directly inform potential instructional practices. Existing standardized language proficiency tests can provide reliable information on students' acquisition of particular language skills, but they are unable to provide information on developmental processes and strategies that underlie students' acquisition of important skills. If we knew in more detail how particular curriculum practices are tied to evidence of students' acquisition of these important skills, then we might better evaluate the effectiveness of instructional practices, explore modifications of practices, and establish realistic performance standards for students from non-English-speaking backgrounds in light of instructional practices.

The present project investigated ways in which detailed study of third- and fourth-grade bilingual students' classroom interaction surrounding answering of questions about text content might contribute to such an effort. Instruction on question-answering was embedded in an implementation of a curriculum known as BCIRC which was a bilingual adaptation of the Cooperative Integrated Reading and Composition curriculum.

Participating students over the school year were taught how to write answers to “wh” (“who,” “when,” “why,” and “what”) and “how” questions in English or their Spanish equivalents based on stories they read. Ethnographic observations and video recordings of teachers' direct instruction and students' cooperative group discussion of question-answering were subsequently conducted. Analysis of ethnographic data and conversation analysis of interaction data led to creation of a process model underlying students' gradual development of question-answering skills and competence in writing syntactically appropriate and content-appropriate answers. The process model was informed by sociocultural and sociolinguistic research on acquisition of literacy skills. Based on qualitative research, clinical, individually administered pre- and posttests of students' question-answering were developed and implemented. The research analyzed systematic differences in students' pre- and posttest performance focusing largely on changes in English performance and similarities between the requirements of Spanish and English question-answering.

The research found evidence of concrete connections between posttest performance increases over pretest performance and classroom discussions of strategies to answer questions consistent with the postulated process model for students' acquisition of skills. The teacher's direct instruction and modeling of question-answering were actively discussed and implemented with increasing competence over the school year by students in cooperative groups regardless of language of instruction, though students showed individual differences in competence within a language. The research suggests the value of future studies investigating more directly how assessments of bilingual students' literacy skills might be tied to evidence of students' self-awareness of performances expected of them in classroom activities and assessments according to the language of instruction. Such research would assist practitioners in devising assessments connecting student performance standards to day-to-day instructional activities in bilingual classrooms.

This report includes recent papers that were produced from the research. The reader is referred also to Durán and Szymanski (1994) reporting our initial, preliminary study findings.

**BILINGUAL STUDENTS' QUESTION-ANSWERING:
WRITTEN ANSWERS AND CLASSROOM INTERACTION**

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Abstract

This paper examines changes in students' cognitive and linguistic capacity to answer story questions over two points in time and how the social learning interaction of students might lead to increased competence in question-answering in either Spanish or English. The approach taken is based on Vygotskian and sociocultural theories of cognitive and linguistic development which postulate that children acquire competence in cognitive and linguistic functioning through social experience providing guided practice and mediation in acquiring knowledge and skills. Our initial analyses examine students' ability to control the syntactic and rhetorical form of question answers in either Spanish or English on an independently administered pretest at the start of the year and then on a posttest nearing the end of the year. Other analyses examine the teacher's instructions for how to write answers to story comprehension questions, and interactions among students as they negotiate appropriate form and content for question answers in either Spanish or English in the intervening period between the pre- and posttest. The results suggest that students acquire a cognitive-linguistic framework for question-answering that generalizes across languages, though further research is needed on systematizing how students deal with relationships or lack thereof across languages. Our research does suggest that an examination of *in situ* problem solving can reveal much about the acquisition of a common underlying proficiency across two language systems for problem-solving tasks such as answering questions based on textual materials such as stories.

This paper reports on the findings of a study of bilingual elementary school students' developing control of question-answering skills in English over one academic year. The question-answering task was introduced to the students first in Spanish; then mid-year, the students began to work on question-answering in English. The focus of this analysis is on how bilingual students engage the task of writing answers to English story comprehension questions. Two kinds of data are examined: written data and recordings of students' interaction. The written data consist of the students' written answers to two English question-answering tasks, one administered at the beginning of the academic year (beg-task) and the other at the end (end-task). When the beg-task was administered, the students were

receiving literacy instruction in Spanish; when the end-task was administered, they had been receiving literacy instruction in English for several months.

The analyses of the students' written answers have been grounded in analysis of interaction data collected in the period of time between the beg-task and the end-task, first, by observing and analyzing the interactions that occurred between the teacher and her students on how to answer questions, and second, by analyzing the students' peer group interactions and their question-answering practices. The analysis of the writing produced at the two points in time coupled with the ethnographic interpretation of interaction in the intervening period provide information on how activities in the classroom as a "community of learners" can lead to the learning of specific discourse skills of importance to children's development of academic literacy.

Conceptual Grounding for the Research

The ambiance and culture of the classroom resemble a "community-of-learners" as described by Rogoff (1991). In a community-of-learners, students acquire literacy skills through a process of cognitive transformation that occurs via their participation in activities that are responsive to a teacher's model for competent performance. Apprentice learners collaborate in learning activities with more competent others. Rogoff uses the term *guided participation* to characterize the evolving relationship between the teacher as expert and students as apprentice learners. As students collaborate with the teacher and each other, they acquire increasing competence in their learning performance and ultimately become capable of accomplishing problem-solving tasks with little or no reliance on or feedback from more capable others. This account of teaching and learning is consistent with a Vygotskian view of teaching and learning (Vygotsky, 1978). Applications of this perspective to research on acquisition of important literacy skills of bilingual students are sparse.

The present study of the literacy acquisition of bilingual students in a peer group context contributes to filling this void. The fact that students being examined were in the process of acquiring a second language can help us discover forms of social mediation informing Vygotskian accounts of literacy acquisition in a second language. The field of second-language acquisition over the past two decades has been caught in a debate about whether competence in a second language is best gained through teaching of discrete skills in a language or through exposure to natural contexts for language use (e.g., see papers in Malavé & Duquette, 1991; Scarcella, Andersen, & Krashen, 1990). A related debate has involved the extent to which explicit awareness of the appropriateness of second-language form hinders or supports acquisition of a second language. A Vygotskian approach towards

second-language acquisition suggests yet another alternative: Acquisition of the second language is mediated by students' acquisition of cognitive models for language competence and by students' successive refinement of language competence through interaction and feedback from peers as well as the teacher.

There are also practical grounds motivating the research described here. The research can make explicit how teachers make students conscious of their language competencies and language performance and how students manifest this consciousness in their written products and interaction leading to the production of language from meeting a task at hand. Research of the sort described here can be used in teacher training activities to help teachers and prospective teachers gain an understanding of ways in which academic language goals are taken up by students, and how the competencies of students undergo a progressive transformation as they gain expertise in the second language (Lantolf & Appel, 1994).

Method

Participants

The students in this study were native Spanish-speaking third graders from one bilingual Spanish-English class who were beginning to learn academic literacy skills in English. In this particular class, instruction during language arts was provided in Spanish at the beginning of the year. Then midway through the school year, students with adequate English-language proficiency were transitioned from Spanish-language to English-language reading and writing instruction. The group of 11 students examined in this study all participated in this instructional transition.

The Task and Data Collection

The students' written products in English were collected at the beginning and at the end of the year. Although the English beg-task was administered during the first month of school when the students had not yet made the formal shift to reading and writing in English, our primary analytic objective was not to characterize their overall English language growth. Rather, we aimed to better understand how the teacher's instructions, talk within the peer group domain, and the question-answering task interact and result in the students' demonstration of enhanced discourse competence in writing answers to story comprehension questions over an academic year. It is, however, interesting to note that the data for this discourse study coincide with a crucial language learning period in which activity structures can facilitate the acquisition of new language forms (Cummins, 1979;

Ervin-Tripp, 1986). That is, knowledge of how to accomplish the question-answering task in Spanish, on theoretical grounds, enables or creates a scaffold for the accomplishment of the same task in English—though there are language-specific requirements for accomplishing the task in each language.

The story comprehension questions on the beg-task and end-task paralleled the design of the cooperative learning curriculum that was being implemented in the target classroom. This curriculum is known as Cooperative Integrated Reading and Composition or CIRC (Madden, Slavin, & Stevens, 1986). The curriculum structures students in small groups of four peers and provides them with opportunities to interact with the other students in their group. In their interactions, the students collaboratively form and establish group practices as they proceed through academic tasks. The most common interactive framework for the students is to work with their partner, or collectively with all the other members of their group. From their interactions, academic tasks are accomplished and student products result.

The CIRC curriculum involves a wide range of activities connected to reading of story texts. The main activity is called the Treasure Hunt and typically lasts 4 to 5 days. The Treasure Hunt structures the reading of a literature-based or basal story into two segments. During the first part of the Treasure Hunt, students are introduced to story vocabulary and discuss the anticipated thematic content of a story, then they go on to read aloud the first half of the story. Subsequently, students are required to discuss and write answers to questions based on the story—typically this involves much talk and negotiation among all the students in the group. The final question on the first part of the Treasure Hunt asks the students to predict what will happen next in the story.

The second half of the Treasure Hunt proceeds in much the same way as the first half. Students go on to read aloud the remainder of the story, and they answer a set of questions. As the students progress through the Treasure Hunt and the other CIRC activities, the teacher coordinates their activities, provides direct instruction and modeling of desired activities, and gives individualized and group feedback to students.

Like the Treasure Hunt task, the stories for the beg- and end-task were divided into two sections. For each task, the teacher read the first section aloud to the students as they followed along with their own texts. Then the students answered three comprehension questions and made a prediction about the upcoming events in section two of the story. In the next part of the task, section two of the story was read aloud and followed by three additional comprehension questions. Thus, a total of seven questions were given to the

students for each task: four after the first half of the story and three after the reading was completed. After this sequence of tasks, an additional writing exercise elicited the students' recollection of the story in their own words.¹

The beg- and end-tasks were created from texts appropriate to the reading level of the third-grade students. The beg-task story was a bilingual folk tale from Mexico called *The Cuckoo's Reward/El Premio del Cuco* (Kouzel, 1977)² and the end-task was entitled *Yeh-Shen: A Cinderella Story From China* (Louie, 1982).³ Both texts were selected because of their canonical three-part story grammars: a protagonist encounters a problematic situation, this problematic situation intensifies as the story events unfold, and the problem is resolved in a story climax.

The ability to write grammatically complete answers to questions is only one of the skills students build through experience with the CIRC curriculum. This skill develops and emerges from the curriculum's stable, unitized activity system as the students work with one another in peer groups. At the start of the year, many third-grade students do not regularly use writing conventions such as capitalization or punctuation, nor do they recognize the grammatical structure of written answers. Instead, they answer questions elliptically like typical conversational responses to questions. As the year proceeds, the students repeatedly engage in cycles of Treasure Hunt question-answering activity in which discursive

¹ For the purposes of this study, the data collected in the story re-telling activity were not analyzed. However, as part of our research program, we would like to incorporate a discourse analysis of these data in the future.

² *The Cuckoo's Reward* is the legend of how the cuckoo became a dull, plain bird that lays her eggs in the nests of other birds who take care of her children for her. As the legend goes, the cuckoo was a beautiful bird with an equally beautiful song. Each fall, the god of rain and good harvests asked the birds to help him gather the seeds for the spring planting before the fire god came to burn the old plants. The cuckoo had always been too frightened of fire and had not participated in the seed gathering with the other birds. One year at dawn, on the day the birds were to gather the seeds, the fire god played a trick by setting fire to the fields early, so to save the seeds and to prove her bravery, the cuckoo flew through the flames. In the process of saving the seeds, the cuckoo's feathers turned gray from the smoke and her beautiful singing voice was ruined. In gratitude, the other birds agreed to care for her children forever.

³ *Yeh-Shen* imitates the storyline of Cinderella, an orphan girl who was given heavier chores than her stepsister because her stepmother was jealous of her beauty and goodness. Yeh-Shen's only friend was a pet fish that she secretly fed and cared for in a nearby pond. When the stepmother found out about her secret, she killed and cooked the fish. An old man visited Yeh-Shen and told her that once again her stepmother was the cause of her sorrow, but more importantly, he informed her of a powerful spirit contained in the bones of her fish; by kneeling before the bones in times of serious need, requests could be made and granted. So, at festival time, when the stepmother departed for the banquet with her own daughter leaving Yeh-Shen behind, Yeh-Shen asked the bones for the chance to attend the feast, and she was granted a beautiful outfit with a pair of gold slippers. At the festival, Yeh-Shen lost one gold slipper, so the king searched for its owner and when he found Yeh-Shen he knew he had found his true love.

control over written answers develops. Paramount in this process of developing control are the teacher's instructions and modeling of good question-answering practice and the students' interactional practices in the peer group.

The sets of questions for both tasks were designed so that a beg-task question grammatically matched an end-task question as closely as possible. In creating the questions, attention was paid to the type of question being asked (who, what, how, etc.), the verb tenses, and the number of clauses in the question. The questions for the beg-task story, *The Cuckoo's Reward*, were:

Section 1:

1. How is the cuckoo of today different from the cuckoo of long ago?
2. What did Chac, the god of rain and good harvests, tell the birds to do?
3. Why didn't the cuckoo help the other birds last spring?

Prediction: Will the birds be able to gather the old seeds? Explain.

Section 2:

5. How did the god of fire trick the birds?
6. Why do you think the cuckoo flew through the flames?
7. Do you think the cuckoo's reward was worthwhile?

The end-task questions for *Yeh-Shen: A Cinderella Story From China* were:

Section 1:

1. Why do you think Yeh-Shen hid her pet fish from her stepmother?
2. How did the stepmother trick Yeh-Shen's fish?
3. What did the old man say the bones of Yeh-Shen's fish could do?

Prediction: Will Yeh-Shen be able to enjoy the festival? Explain.

Section 2:

5. Why did the king look for the owner of the golden slipper?
6. How does Yeh-Shen's life change after trying on the slipper?
7. Do you think the stepmother's fate was fair?

The questions from the beg-task were grammatically matched to the questions from the end-task according to Table 1. The matched beg- and end-task questions were compared in order to see changes in the students' written question-answering abilities over an academic year. For example, the first question on the beg-task is shown to have been matched with the sixth question from the end-task based on their grammatical similarities. Referring to the questions above, both questions are in the present tense and are of a "how" type.

Table 1
 Beg- and End-Task Question Match-Up

Beg-task question	End-task question
1	6
2	3
3	5
Prediction	Prediction
5	2
6	1
7	7

The matched beg- and end-task questions feature a variety of question types. These include two “how” questions, a prediction that lacks a question word and is formulated in two parts, a “do you think” question, and three “wh” questions: one “what” question and two “why” questions (a “why” and a “why do you think” question). With respect to the verb tenses used, five questions are in the past tense, one is in the present tense, and one is in the future tense. In terms of the questions’ complexity, four of the questions are simple one-clause sentences and three are complex, two-clause sentences.

Analysis

The beg- and end-task question responses that were collected for this study bounded an incredibly complex history of interaction in the bilingual classroom. The teacher of the classroom in which these data were collected had specific goals for instructing her students on how to answer story questions. These included teaching students specific strategies to write grammatical, nonelliptical complete-sentence answers. An ellipsis is a phrase that has a portion deleted such that its full meaning and contextualization is not available. When orally answering a question, a speaker typically uses ellipsis and relies on the prior talk to contextualize the answer. For example, the elliptical phrase “so she’s really smart” is more completely understood when it responds to the sentence “Beth received the highest possible score on the IQ examination.” In addition to being instructed on strategies for how to write answers to story questions, the students had opportunities to apply these strategies in their own ways based on their negotiated application of them within their peer group community.

The present study investigates these two co-created domains: students’ independent responses to story questions at the start and end of the year, and the evidence that

communication in the classroom in the intervening period led to students' acquisition of strategies for answering questions. Viewed together, performance of students in these two domains shows how a Vygotskian and activity theory approach to language acquisition can trace the social construction of language competence over time. The three-part analysis we present shows (a) how the teacher introduces the students to a cognitive-linguistic framework for question-answering, (b) the systematic differences in students' independent control of this framework before instruction by the teacher and at the end of the school year, and (c) discourse among students showing gradual internalization by students of the teacher's cognitive-linguistic framework for question-answering during the school year.

The first part of the analysis focuses on the instructional context and the question-answering practices that were instructed by the teacher. These data contextualized the students' written products because, through her instructions, the teacher provided an activity frame that the students could use to successfully bring language knowledge to accomplish story question-answering.

The second part of the analysis is the discourse analysis of the students' written answers from the beg- and end-tasks. This analysis provides different accounts of the students' competencies at two moments in time: at the beginning and at the end of the school year. First, the findings from a prior study of bilingual Spanish/English and monolingual English students' written answers are discussed and four identifiable discourse patterns are described. Second, the data for the present study—the bilingual students' written answers to the beg- and end-task questions—are comparatively analyzed to reveal their discourse patterns, focusing on certain grammatical and rhetorical competencies. Third, the grammatically matched questions from the beg-task and the end-task are comparatively analyzed to show how, for a particular individual and for the group as a whole, these competencies changed over the course of the year.

The third part of the analysis presents examples of how the interactional practices of the peer group play a role in the development of students' question-answering competencies. Here prior related research on this topic by other research team members is introduced, and its importance to the present study is discussed.

The concluding section of the paper discusses the implications of the study for addressing students' acquisition of important literacy skills in bilingual classrooms and the need for more systematic research on bilingual phenomena affecting the acquisition of literacy skills.

The Teacher's Instruction and the Question-Answering Task

Regular ethnographic observations of the targeted teacher's practice showed her to instruct students in the use of a complex pattern of strategies to help them write answers to questions in a grammatically complete form. In the first few weeks of school, the teacher introduced the strategies through a series of activities that highlighted the differences between oral and written language form. Oral forms of language such as conversation are largely elliptical and are understood with reference to what was spoken earlier in the discourse. In contrast, written forms of language, especially schooled discourse, are decontextualized and necessitate the explicit expression of subjects and referents. For example, the question "What did Chac, the god of rain and good harvests, tell the birds to do?" can be answered elliptically or in decontextualized language. In an elliptical answer such as "to gather the seeds," the answer phrase depends upon the prompting question to clarify who was to do the gathering and in what context the gathering was to occur (i.e., because Chac asked the birds to do it). In the decontextualized answer "Chac told the birds to gather the seeds," the subject and objects are unambiguous.

Prior to her introduction of the strategy for writing answers, the teacher led the class in an activity referred to as "numbered heads." In this activity, the students discuss a set of questions in their peer groups with the understanding that each member should be able to answer each question should he or she be called upon by the teacher to answer for the group. Then, the whole class reconvenes to conduct the numbered heads activity, and a member of each group is randomly selected by the teacher (#1, #2, etc.) to answer a particular question. Instructionally, the numbered heads activity is designed to focus the students on the content of the question's answer and on the use of their oral language abilities.

Following the numbered heads task, the teacher began an introduction on how to write the answers to the questions they had just discussed. She began the lesson by reading the question, an action interpretable by the students as a solicitation for the answer. Immediately the teacher noticed that the students were raising their hands to bid for a turn to answer the question, so she reminded them that the answer had already been given in the numbered heads activity. Then she redirected the students' focus to the task of writing the answer by instructing them to underline the part of the question that semantically and grammatically framed a complete-sentence answer. The excerpt below is the teacher's instructional discourse on how to write the answer. (The original is in Spanish and its

translation to English is presented in brackets. Underlined words reflect the teacher's intonational emphasis.)

"Okay, ahora vamos a practicar en el pizarrón cómo escribir nuestra respuesta. Empezamos con la número uno. Pongan muy bien atención porque ustedes van a tener que hacer esto. La primera dice, ¿Qué era Nadarín? Ustedes ya me dijeron. Okay, ¿Qué era Nadarín? (Unos estudiantes están a pie con las manos levantadas.) No. Está bien. Ya me dijeron lo que era. Vamos a practicar cómo escribir la respuesta. Primeramente, vamos a subrayar la parte de la pregunta que va dentro de nuestra respuesta. ¿Okay? Vamos a empezar con subrayar esto. Subrayen eso en su pregunta ahorita. (Hablando a un estudiante:) La parte que dice "era Nadarín", good."

["Okay, now we're going to practice on the board how to write our answer. We begin with question number one. Pay very close attention because you are going to have to do this. The first one says, What was Nadarín? You already told me. Okay, What was Nadarín? (Students stand up with raised hands.) No. It's okay. You already told me what he was. We're going to practice how to write the answer. First, we're going to underline the part of the question that goes within our answer. Okay? We'll begin by underlining this. Underline that in your question now. (Speaking to one student:) The part that says 'was Nadarín', good."]

In the excerpt, the teacher distinguishes between the answer that was given in the oral numbered heads activity and the answer that would be written by using parts of the question. The action of underlining the part of the question that will appear in the answer guides the students to incorporate the explicitly expressed words needed to construct decontextualized schooled discourse. The underlined portion of the question serves as a frame for the orally produced, elliptical answers that are naturally elicited in conversation. Once the students have underlined the frame for the answer, the teacher continues her instructions by guiding them through the writing of the complete-sentence answer. She instructs them to complete the answer frame with the answers offered earlier in the numbered heads activity.

The strategy of echoing the question in the answer developed and became a tool for students throughout the school year as they made the transition from Spanish to English literacy instruction. The next part of the analysis focuses on how this development can be documented from the students' written products.

The Written Answers to the Story Questions

The analysis of students' written answers to the story comprehension questions was twofold. First, the students' written answers to the written questions on both the beg- and end-tasks were compared. This analysis focused on the discourse similarities between the initiating question and its responsive answer. Then students' answers to the beg- and end-task questions that had been matched for their similar grammatical structure were comparatively analyzed.

Before embarking on the present study's analysis, the responses to a prior analysis of bilingual and monolingual students' written responses to question-answering tasks identical to the beg- and end-task activities is described. This prior study revealed several discourse patterns related to the echoing phenomenon that focused the analysis of the present study.

Echoing patterns. A prior study (Durán & Szymanski, 1995) examined the written responses of both monolingual English and bilingual Spanish/English third graders in English and Spanish, respectively. The students read *The Boy of the Three-Year Nap* (Synder, 1988) and its translation in Spanish and the bilingual tale of *The Cuckoo's Reward/El Premio del Cuco* (Kouzel, 1977). The analysis that was conducted on these data focused on the students' responses in relation to the eliciting question. The findings revealed several discourse patterns common to both the monolingual and bilingual students. The following is a description of the characteristics of four identifiable patterns found across the data set.

In the comparison of the students' written answers and the syntax of the question, some of the answers lacked the repetition of any of the words or the syntactic structure of the question. In these cases, as in the following example, the answer was not grammatically linked to the question.⁴

Question:	¿Qué les pidió Chac a los pájaros que le ayudara a hacer? What did Chac ask the birds to help him do?
Response 106:	poner semillas para la primavera. (put seeds for the spring.)
Response 139:	plant seeds.

Commonly, answers that did not echo the eliciting question were elliptical and pointed to the question's grammar through the repetition of a conjunction or other marker contained in the question. For example, Responses 101 and 140 below contain the repetition of the phrase initial words "que" and "to."

⁴ Student answers are reproduced, unedited from the original task sheet.

- Question: ¿Qué les pidió Chac a los pájaros que le ayudara a hacer?
What did Chac ask the birds to help him do?
- Response 101: que fueran al bosque a siembra las simillas para dar de comer a la gente.
(that they would go to the forest to plant the seeds in order to feed the people.)
- Response 140: To gather the sies in to the falled. (To gather the seeds in to the field.)

Sometimes students attempted to use the question's syntax to form the answer without fully transforming the question's syntax to form the answer. This resulted in the formation of grammatically incomplete sentences such as the ones contained in Responses 107 and 140 below.

- Question: ¿Qué le dice el ujigami al comerciante que haga?
What does the ujigami tell the merchant to do?
- Response 107: le dice el ujigami al comerciante que haga case a su niña con Taro. (the ujigami tells the merchant to do marry his child with Taro.)
- Response 140: The ujigami told the merchant to do was your doter has to mariy taro.

Responses 107 and 140 above show the repetition of the part of the question to occur contiguous with the start of the new information of the answer. This pattern was also found to occur uncontiguously as in Responses 112 and 121 below.

- Question: ¿Qué le dice el ujigami al comerciante que haga?
What does the ujigami tell the merchant to do?
- Response 112: el ujigami le dice que haga el comerciant que case a su hija con taro. (the ujigami tells him to do the merchant to marry his daughter with taro.)
- Response 121: The ujigami tell's the merchant to do by saying to let Taro get marred with his daughter.

Thus far, two written patterns have been described. The students either used or did not use parts of the question's syntax in formulating the written answer. In both cases, the resulting sentences were grammatically incomplete. When the question's grammar was not used, the answer was often elliptical to the question's phrasing. The examples above which showed the students repeating parts of the question in the answer were grammatically incomplete because words that were to be replaced by the answer were repeated in the answer. This repetition occurred both contiguously and noncontiguously with the start of the new information or the answer itself.

Two other written patterns emerged from this prior study. These patterns showed the students using the question in order to frame the answer and making the necessary changes

to the question's grammar to formulate a grammatical frame for the answer. Questions answered in this way produced complete sentences.

When students appropriately repeated the question to form the frame for the answer, they either restated the question almost exactly word for word or they restated it in a reduced, pronominal form. The reduced echo form, contained in Responses 116 and 119 below, reflects the grammatical structure or the lexicon of the question, but it includes the substitution of pronouns for proper nouns and noun phrases (e.g., "he" or "him" for "Jim"). Due to the fact that the information contained in the question is not maintained in the answer, the response is not a decontextualized, understandable-on-its-own response to the question's prompt.

Question: ¿Qué les pidió Chac a los pájaros que le ayudara a hacer?
What did Chac ask the birds to help him do?

Response 116: Le pidió que le ayudaran a sacar las semillas que las flores viejas tenían.
(He asked them to help him gather the seeds from the old flowers.)

Question: What does the ujigami tell the merchant to do?

Response 119: He told him that his daughter had to marry Taro.

Although both Responses 116 and 119 show the students to exclude the full noun phrases referring to the subject and the direct objects of the question (Chac, los pájaros/ujigami, merchant), the answers nonetheless mirror the syntactic structure of the eliciting questions.

When using the question to formulate a frame for the answer, some students completely repeated the question's syntax and lexicon, making the necessary question-to-answer transformations to form a grammatical sentence. These responses, unlike the prior category of echo answering, did not contain pronouns or other reductions from the question's form. Responses 101 and 117 illustrate the full extent to which the students followed the echo strategy.

Question: ¿Qué le dice el ujigami al comerciante que haga?
What does the ujigami tell the merchant to do?

Response 101: El ujigami le dijo que se casara con su hija y taro. (The ujigami told him to marry his daughter and taro.)

Response 117: The ujigami tells the merchant to have Taro marry his daughter or his daughter will turn into a pot.

The four written patterns that emerged from the monolingual and bilingual analysis showed that, with respect to the written answering task, the bilingual students' performance was virtually identical to that of the monolingual students. For example, in terms of the echoing phenomenon, some students reduced the question's syntax through the use of pronouns whereas other students strictly adhered to the repetition of the question's syntax.

Comparing the answer to its eliciting question. The present analysis benefited from the patterns that emerged in the prior analysis of monolingual and bilingual students' written responses described above. With the findings from the prior analysis, the present study was aimed at characterizing the answer in relation to its eliciting question according to two features: (a) the grammatical completeness of the sentence, and (b) the extent to which the question's discourse structure is used in the answer as the teacher had instructed.

The grammatical completeness of the written response was determined by using the traditional linguistic notion of "complete" sentence in which a verb has an appropriately agreeing predicate. Since many of the students' responses are elliptical and dependent upon the question for their full meaning, a 3-point system was created to account for the degrees of completeness. A score of 0 represents an incomplete sentence, one that does not include any appropriate predicate-verb phrase. A score of 1 represents an incomplete sentence according to grammatical rules proper, but included in this category are elliptical dependent clause answers that contain a grammatical predicate-verb phrase. A score of 2 represents a complete sentence containing an appropriate predicate-verb phrase.

The second feature scored was the extent to which the student incorporated the question's discourse structure into the answer. This echoing phenomenon was measured by a 4-point scale not intended to represent a real scale. This scale is based upon the four discourse patterns that emerged from the monolingual and bilingual question-answer comparison done prior to this study. In the coding scale, a 0 refers to a written answer that does not show a discourse link to the question in any recognizable way. A rating of 1 shows the student to use the question almost word for word as a frame for the written answer; however, the question is not modified to form a grammatically complete sentence. An answer rated 2 contains portions of the question that are adequately modified (e.g., nouns may be changed to pronouns or a synonym may be substituted for the verb) to produce a grammatical sentence. An answer rated 3 is a complete echo where the question is restated almost word for word with necessary modification to create a grammatical answer. Table 2 outlines the coding scale for each of these features.

Table 2

Coding Scale for Completeness and Echo Features

Completeness	Echo
3 - the answer is grammatically complete according to linguistic rules	3 - the answer includes almost word for word the syntax and lexicon of the question and is complete and grammatically correct
2 - the answer is grammatically complete according to linguistic rules	2 - the answer includes portions of the question's syntax and lexicon, i.e., pronouns may be used or noun phrases may be excluded
1 - a clause in the answer forms a complete predicate-verb phrase, i.e., elliptical answers are scored here	1 - the answer includes almost word for word the syntax and lexicon of the question but the question's syntax lacks the transformations necessary to form a complete and grammatical sentence
0 - the answer does not contain any appropriate predicate-verb phrase	0 - the question's syntax and lexicon do not appear in a noticeable way in the answer

To illustrate how various kinds of answers would be scored according to the completeness and echo scales outlined above, examples were taken from the students' answers to the second end-task question: "How did the stepmother trick Yeh-Shen's fish?" In the story, the stepmother tricked the fish into believing she was Yeh-Shen by wearing her coat, so that when he swam nearby, she could kill him. Table 3 shows how several student answers were scored.

Even though Student 7 repeated "Yeh-Shen" in the answer, the response does not qualify as an echo because it lacks the repetition of one or more of the question's discourse structures, such as a noun-verb phrase or a prepositional phrase. The answers of Students 6 and 1 qualify as echoing answers that are not altered appropriately to form complete-sentence answers. Student 6 does not change the question's past tense verb ("did trick") to its answering form ("tricked"), and Student 1 does not use an appropriate connector to join the echoed answer frame with the answer itself. Student 9 shows control over the echoing phenomenon, because the majority of the question's discourse structures are incorporated into the answer, but the echo is not exact since "she" is substituted for "the stepmother." The final answer in Table 3 shows the question's discourse structures to be incorporated appropriately into the answer without simplifications or substitutions.

Table 3
 Student Answers Illustrating Completeness and Echo Scales

Student	Answer	Completeness score	Echo score
7	By liven Yeh-Shen's cote [by leaving Yeh-shen's coat]	0	0
6	the stepmother trick Yeh-Shen's fish by celing the fish. [The stepmother trick Yeh-Shen's fish by killing the fish.]	0	1
1	stepmother trict da fih git da suerer [stepmother tricked the fish get the sweater]	1	1
9	She trikt Yhe shen's fhis cois she told yhe shen to go get wood and she told her too teke her kot of and she put it on. [She tricked Yeh-Shen's fish cause she told Yeh-Shen togo get wood and she told her to take her coat off and she put it on.]	2	2
a	The stepmother tricked Yeh-Shen's fish by wearing Yeh- Shen's coat so she could gain his trust.	2	3

^a No student in the sample scored a 3 in the echo category, so this sentence was created for illustration purposes.

The total number of beg-task and end-task answers receiving each score on the completeness and echo scales is presented in Table 4.

Table 4
 Students' Beg-Task and End-Task Answer Totals

Scale score	Total beg-task	Total end-task
Completeness		
2	21	47
1	46	23
0	10	7
Echo		
3	6	12
2	10	11
1	2	19
0	59	35

After coding the students' responses for these features, the comparison of the findings revealed a strong positive correlation between the grammatical completeness of their answers and the lexical and syntactic repetition of each question in the answer. That is, the students' answers were found to be grammatically complete more often when they use the lexicon and syntactic structures of the question in the answer. How the echoing phenomenon could be seen to develop over the school year was the focus of the comparison of the students' answers to the grammatically matched beg- and end-task questions.

Comparing the answers to matched beg- and end-task questions. In the next phase of analysis, the students' answers to beg- and end-task questions grammatically matched according to Table 1 were analyzed for the ways in which students were seen to be using the written question as a resource for their written answer by echoing. The descriptive characterization of the echoing phenomenon provides a way to better understand the question-answering task. By coding the types of echoes that were found, both the grammatical demands of the written answering task and the strategies used to accomplish it could be seen. For example, some students were able to reduce the question's syntax through the use of pronouns and appropriate phrase deletions, while other students strictly adhered to the repetition of the question's syntax albeit without addressing the need to transform and integrate the answer into this repeated phrasing.

Table 5 shows a sample of the beg- and end-task answers that contain differences that recurred throughout the data sample. The prompting question is open ended and framed by "why do you think" phrasing. The beg- and end-task questions have well-matched discourse structures, since both are complex sentences (containing two clauses) that have past tense dependent clauses ("flew," "hid"), and include a prepositional phrase in sentence final position ("through the flames," "from her stepmother"). Each answer is coded according to the above-mentioned echo descriptions and is represented in the student's unedited version followed by the standard orthography in brackets.

In formulating a complete-sentence answer that contains information that is linked back to the eliciting question, the connector plays a crucial role. The connector ("because," "so," "by," etc.) enables two clauses to be joined, as in the linking of an answer's frame and the answer itself. In order to conjoin these two parts of a complete-sentence answer, students must use their metalinguistic knowledge about grammar and the appropriateness of various connectors to particular questioning grammars. The first three student responses in Table 5 highlight this aspect of answering questions.

Table 5
 Beg-Task and End-Task Echo Performance

Student	Beg-task Q: Why do you think the cuckoo flew through the flames?	End-task Q: Why do you think Yeh-Shen hid her pet fish from her stepmother?
1	no echo To siv the sids. [to save the seeds]	elliptical echo <u>becaus</u> her step mather whas goien to kil the petfish [because her stepmother was going to kill the pet fish]
2	elliptical echo <u>pecas</u> jes es cer. [because he's scared]	elliptical echo <u>so</u> thet her stepmother dirit now [so that her stepmother didn't know]
3	elliptical echo <u>cous</u> je felt souri [cuz he felt sorry]	full echo Yhe shen hid her pet fish from her stepmother <u>bicus</u> she mit think shis going to it him. [Yeh-shen hid her pet fish from her stepmother because she might think she's going to eat him]
4	elliptical echo Bicos wi jior yn do stori de you rueras. [Because we hear in the story that you read us]	full echo Yeh-Shen hid her pet fish from her stepmother bicos she think that she was taing to sker him. [Yeh-Shen hid her pet fish from her stepmother because she thinks that she was trying to scare him.]
5	no echo ta sai ta sit frani prnin [to save the seed from burning]	full echo I think that Yeh-shen yas jaidin the fish from jr matr picas jr stepmatr mait cil the fish. [I think that Yeh-shen was hiding the fish from her mother because her stepmother might sell the fish.]

Student 1 answered with a no-echo sentence on the beg-task and later, on the end-task, wrote an elliptical-echo answer. Whereas the beg-task answer is not orienting to the eliciting question, the end-task answer contains the connector “because,” which syntactically links it to the “why” question. In the comparison of the answers to these two grammatically matched questions, this student can be seen to have developed a sense for what the grammar of an answer could be, although his writing reflects the ellipsis of spoken discourse.

Both the beg-task and end-task answers for Student 2 were coded in the elliptical-echo category, but it is interesting to note the variation of the connecting terms “because” and “so.” This student demonstrates an awareness of the appropriate variable use of these connectors in response to “why” questions.

Student 3 produced an elliptical response on the beg-task and a complete echo on the end-task. The comparison of the connectors here also shows a progression from oral forms of discourse to written forms. In the beg-task, the student writes “cous” (“cuz”), an oral, less formal variation of the connector “because.” On the end-task, this connector is realized in its full written form, “bicus” (“because”).

The use of the connector in answering questions is central to our understanding of the echoing phenomenon. The presence or absence of the connector shows how a student is orienting to the writing task. When the connector is present, the student is incorporating the grammar of the question into the answer, because the question type elicits an appropriate connector (i.e., why-because; how-by; etc.). The absence of the connector may occur when students orient more on conversational discourse forms rather than the decontextualized written form. Further, the form the connector takes, be it a colloquial form (i.e., “cuz” for “because”) or a variable form (i.e., “so” in place of “because” for a “why” question), alludes to the student’s degree of grammar facility in writing.

In our analysis of the beg- and end-task products, other issues were raised by the data. For example, Student 4 in Table 5 shows a pattern similar to Student 3; the beg-task answer is elliptical and the end-task answer is a full echo. The interesting thing about the comparison of these two answers is the criteria with which the student supports his or her reasoning. On the beg-task, the “why do you think” question is treated like a factual question. “Why do you think the cuckoo flew through the flames?” is interpreted as “Did the cuckoo fly through the flames?” This strategy of simplifying the question was found to be quite common for the more grammatically complex, higher level reasoning questions. The evidence Student 4 gives to support the answer is purely experiential, having heard the story read aloud. On the end-task, Student 4 handles the question as a “why do you think” type and makes inferences about what Yeh-Shen must be thinking given her actions in the story.

Student 5 demonstrates no orientation to the question in the beg-task question and writes a full-echo answer in the end-task. Of the data set, this student was the only one to incorporate “I think” into his answer frame on the end-task. One conclusion that can be drawn is that for a “why do you think” question, which combines two questions—“why” and “do you think”—students orient to the “why” question before the “do you think”

question. The question word “why” is addressed in the answer by the connector “because,” and the “do you think” phrasing is not written but incorporated by inference.

The discourse analysis of the echoing phenomenon raises several issues regarding the bilingual students’ peer group practices. Given the range of written answers, how were bilingual students using their peer group negotiations to arrive at these answers? Did they in fact negotiate particular aspects of the written answer? And what was the process by which they proceeded from the discussion of the answer to the writing of it? This is the focus of the third section of analysis.

Frames of Interactional Practice: Students’ Question-Answering in the Peer Group

This section explores how the students could be seen to incorporate echoing strategy into their literacy activity and their interactional practices. In the peer group, interaction among students is the mediation between the teacher’s instructions and the individual students’ written products. That is, the peer group represents a social domain that links the whole-class, teacher-led domain with individual students’ participation and performance in that domain. Among their peers, the students go about contextualizing, applying, and integrating the teacher’s instructions into their own practices. How this is accomplished depends upon the group’s negotiations about what the task is and the manner in which it should be completed. The teacher’s instructions, the student peer group interactions, and the students’ performance on the written task are interdependent and mutually shaping.

The various units and subunits of the CIRC curriculum constitute a recurrent system of practices followed by students in the language arts classroom. Through their repeated accomplishment, these units and subunits provide the basis for the development of a culture of practice for learning language arts in the social context of the classroom. The units and subunits of CIRC are reinterpreted on a moment-to-moment basis on each occasion within the classroom (Durán & Szymanski, 1995). The organization and direction of students’ interaction cannot be understood or assessed well by focusing solely on what students are expected to be doing based on the design of an activity from the teacher’s perspective or as it is specified by the curriculum. They cannot be appraised by noting the nature of instructional materials, teacher lesson objectives, or the products generated by students as a result of instructional activity. Instead, interactional practices are an *in situ* phenomenon and are processive in nature. Appraisal of *in situ* opportunities to learn requires examining *how*, *why*, and *what* students do *with whom*, and *where* (Tharp & Gallimore, 1988; Tuyay, Jennings, & Dixon, 1995).

The practices followed by students as they accomplish literacy tasks give rise to different forms of cognitive and linguistic problem solving that address the demands of the task at the moment. Some researchers concerned with the academic progress of students from culturally and linguistically diverse backgrounds have begun to draw extensively on the insights and views emerging from interactional studies and accounts of situated cognition. Durán and Szymanski (1995), Goldenberg and Patthey-Chavez (1995), Gumperz, Cook-Gumperz, and Szymanski (1995), Gutierrez (1995), Lerner (1995), Tuyay et al. (1995) and Szymanski (1996), for example, have conducted qualitative studies of Latino students' interaction while engaged in collaborative learning. The work of these investigators shows that students' opportunities to learn are constructed directly through face-to-face interaction.

The detailed study of student interaction in specific activities reveals the actual forms of problem solving in which students engage as they arise in face-to-face interaction rather than as postulated a priori on the basis of the academic demands of the curriculum. The evaluation of students' moment-to-moment interaction shows what students are capable of accomplishing and what they mean to accomplish in the moment, and how they coordinate their work given a teacher's communication of curricular expectations.

The cooperative learning group provides a context in which collaborative practices are cultivated and established. The detailed examination of these practices reveals several action sequences that organize the students' interactions as they progress through a question-answering task (Szymanski, 1996). The question-answering task is partitioned into three subtasks that may occur in any order in the students' negotiations. These subtasks are (a) answering or responding to the content of the question, (b) creating a grammatical frame for the written answer, and (c) formulating the response to the question to grammatically fit the answer frame (e.g., by using an appropriate connector). During any one of the subtasks, the students may negotiate the particular form of a word or words in the written answer. The study of these negotiations is crucial to understanding the demands of the task for the students and the issues that they are addressing by engaging the academic task. Some of the issues that have been studied have shown bilingual students to negotiate and find problematic such linguistic phenomena as the appropriate inclusion or deletion of the word "surprising" in the noun phrase "surprising discovery" (Gumperz et al., 1995), the form of the word "always" in a past tense sentence (e.g., "always" or "alwaysed") (Gumperz & Field, 1995), and the discussion of how to most appropriately refer to a third-grade girl's future occupation: "policeman," "policegirl," or "cop" (Durán & Szymanski, 1995).

As students proceed to communicate with each other about question-answering in groups, they may integrate the actions and perspectives of the teacher about how to answer questions. The talk between teacher and students on how to answer questions becomes visible in how students talk to each other about how to answer questions. This process of group “ventriloquation” (Wertsch, 1991) becomes a resource for students’ representation of cognitive and linguistic problem solving in moment-to-moment interaction. One illustration of this phenomenon was retrieved from an excerpt of the videotaped classroom interactions, presented below, that showed the teacher addressing the difficulty of answering the question “What advice does Marvin give Molly?” A particular student, V, had incorporated the word “does” in her answer frame, so the teacher explained to her that “does” is a question word that is not to be included in the answer frame.

Excerpt I

In the following excerpt, T is the teacher and V, J, D, and G are students in the peer group. When the original transcript is in Spanish, an English translation is given in italics. The transcription conventions are listed in the appendix.

	1	T:	°okay° this is good,
	2		{R>} Molly's problem is that she never (·) lost a
	3		tooth,{<R} the second one you're (·) writing the
	4		question, {R>} what advice does Molly's mom give her
	5		about this problem. {<R} okay, (·) so it's gonna at
Answ Fr=>	6		(·) thee adVICE (·) THEE ADVICE (1.0) ((underlines
	7		on V's paper)) Molly's mom gives her about this
	8		problem IS, okay, start with thee advice,
Instr =>	9		tell me what it is, okay, this one here (·) uhm DOES
about =>	10		is a question, Jorge (·) and you, so don't start
"DOES" =>	11		your answer with does, because that's a question
	12		word, a'right?
	13		(1.0)
	14	T:	let's look at this, ((sits down between D and G))
Ques=>	15		{R>} what advice does Molly's mom (·) »give her«
	16		about this problem, {<R}

Answ=> 17 J: she este le dice que no se preocupa porque (·)
she uhm she tells her not to worry because
 18 porque este le later on se le- se le va a caer un-
because uhm le later on it's- it is going to fall
 19 un- uña- un-
out a- a- a-
 20 T: okay, here, ((takes D's pencil and paper))
 21 so we're gonna start with,
 Answ Fr=> 22 {W>} THE ADVICE (1.4) 'n cross out does (·) the
 23 advice (·) Molly's mom GIVES (·) her about this
 24 problem IS {<W} ((returns pencil and paper to D))
 link Fr=> to 25 (·) an then you're gonna say what Jorge said
 Answ=> 26 (·) she tells her to:
 27 J: que este ya no se- ya no se preocupa
that uhm she still- she shouldn't worry anymore
 28 T: okay, an how do you say that in English Jorge,
 29 J: uhm:
 30 J: she tells her to:
 answ => 31 D: not [to worry]
 32 G: [becau:se]
 33 T: not to worry, good ~girl, {claps once}
 34 okay, so all of you »put that down«
 35 tells her not to worry,

The teacher begins the question-answering activity by reading aloud the question in lines 4–5. Then she proceeds with the task by creating the answer frame. In line 6, she selects the parts of the question that will be included in the answer, identifying the beginning of the frame in the repetition of the phrase “thee advice.” As she produces the phrase, the teacher shows that she is engaged in identifying the answer frame through the increased volume and word stress of “vice” in the first rendition, and of the entire phrase in the second. After underlining the part of the question that she has identify to form the answer frame, the teacher explicitly instructs the students not to start the answer with the word “does.” She accounts for her instructions by qualifying the word “does” as a “question word.”

From lines 14–35, the teacher guides the peer group in three of the question-answering subtasks: (a) answering the question, (b) formulating a frame for the written answer, and (c) linking of the answer with the answer frame. In lines 15–16, the teacher again reads the

question aloud, and in so doing she elicits an answer to the question. Student J responds in lines 17–19 by producing an answer to the question. J answers the English question in Spanish, a strategy recurrently used by the students in the initial language transition phrases in order to scaffold the task; the shift to Spanish enables the answerer to separate the task of answering the content of the English question from the task of formulating a grammatical sentence in English that incorporates the answer. Again the teacher reiterates the words that mark the answer frame’s beginning, in lines 22–24, and she instructs the students to “cross out” the word “does” from the question. It is interesting to note the teacher’s use of courses of mediation such as underlining the answer frame and crossing out words that are within the boundaries of the answer frame but are not to be included to scaffold the written task. When the students actually write the answers on their answer sheet, they can refer to their question sheet as a guide for how to frame and formulate the sentences. Just as the reading of the question elicits the answer, the creation of the answer frame in lines 22–24 elicits the completion of the sentence with the answer. A particular connector is not strongly linked to questions of a “what” type, so the teacher leads into the answer by uttering a phrase that will link the frame to the answer in line 26, “she tells her to:” Her elongated vowel in the word “to” invites the students to finish the sentence, which D does a few turns later in line 31.

In the same class session as Excerpt I, the teacher’s instructions in the question-answering activity resurfaced as the students continued writing the answers in their peer group. While working on another “does” question—“What advice does Marvin give Molly?”—Student D realizes that they had incorrectly answered it also. So, she alerts the others to the error they had made by paraphrasing the teacher’s “rule” about questions containing the word “does.”

Excerpt II

- 1 D: we're wrong in the fourth one too;
- 2 J: =~QUÉ:?
What
- 3 V: =that's for YOU:, I copied off YOU:.
- 4 D: ALL OF U:S ((motions with hand around table))
- 5 J: what, yo no ()
what, I didn't

	6	D:	en la cuatro estaba MA:L, porque (tú/te) <i>in the fourth one it's bad, because (you)</i>
=>	7		crees qué dijo la maestra 'e aquí <i>believe what the teacher said that here</i>
=>	8		que DOES es como una pregunta? <i>that does is like a question?</i>
	9		((a few lines are omitted))
Answ Fr	10		entonces tiene que ser <i>then it has to be</i>
refrm=>	11		{R>} Mervi::n ⁵ gives Molly adVICE. {<R}

At first, the other students were not receptive to D's announcement about their error on the fourth question. Both V (line 3) and J (line 5) questioned their responsibility for the error even before D had identified the trouble. In responding to this resistance, D evoked the teacher's voice and her question-answering instructions in line 8: "does es como una pregunta" (does is like a question). D locates "does" as the trouble source for the error she had made in writing the answer by uttering the word with stress and increased volume. A few moments later in lines 10–11, D reformulates the answer frame to exclude the word "does."

Another problem arises when D omits the word "does" from her answer frame. Most questions can be used to create answer frames by identifying the first word after the question word that will be included in the answer; all the words following this word will also be included in the answer frame. For example, the question "Why did the cuckoo fly through the flames?" is framed by all the words following "The cuckoo" (The cuckoo flew through the flames because...) and the question "What did Chac, the god of rain and good harvests, tell the birds to do?" is framed by all the words following "Chac." The students have generalized this rule so that after omitting the word "does" from the answer frame for the question "What advice does Mervin give Molly?", the students look to the right for the first word of the frame. Here, D started the reformulated answer frame with "Mervin" and included all the words following it: "Mervin gives Molly." This answer frame invites a noun or noun phrase telling what Mervin gives Molly to complete the sentence. In this case, D filled in with the most available noun, "advice," and produced an accurate (Marvin did give Molly advice) albeit a non-answer to the eliciting question (what advice had he given).

⁵ The students regularly substituted "Mervin" for "Marvin" throughout the story unit.

Concluding Remarks

In many ways, our study raises more questions than answers. The data analyses we have presented suggest very strong connections between a teacher's introduction of a cognitive-linguistic framework for answering story questions and students' gradual appropriation of this framework as a tool for independent question-answering through intervening social interaction with other students and the teacher. Our data analysis of students' performance began with performance in Spanish as the primary language, and then focused on English after students had transitioned to instruction in that language. Our findings across the two languages are consistent with Cummins' (1984) idea that primary language instruction can help students acquire a "common underlying language proficiency" that can transfer across languages. In the case of our study, we believe that this common underlying language proficiency includes students' acquisition of a cognitive-linguistic framework for question-answering in *both* Spanish and English. Regardless of language, students approached answering a question as a two-part activity with similar structure and cognitive-linguistic goals.

Our analyses and findings of student peer group interactions show that the students are simultaneously orienting to multiple aspects of language form as they proceed through question-answering activity: oral language forms, written question forms, acceptable written answer forms. In the peer context, the students are able to discuss and negotiate different language forms and their relationship, for example, whether to include "does" in the answer. The written question is a resource for discussion, and it guides the creation of the written answer by providing a sentence to which the answer must make reference according to decontextualized language forms. Acceptable written answer forms seem to emerge from the integration of oral and written discursive practices. That is, the students orally formulate the content of the answer, and they rely on their manipulation of the question's grammar to frame the answer in a complete sentence.

There are many questions about how this framework for question-answering is affected by the specific syntactic, orthographic, lexical, and discourse characteristics of Spanish and English. We have not undertaken a systematic study of these relationships, but note that such work is needed in the context of bilingual populations and learning contexts like the ones we have examined. The matter is not straightforward on sociolinguistic grounds as it involves consideration of the language histories of children and the varieties of Spanish and English to which children have been exposed in their earlier development and in current family and community settings. By choice, instead, we have emphasized exploring ways in

which *in situ* interaction of students might explain students' development of independent capacity to answer questions over an intervening time period during which it was possible to "benchmark" students' performance in one or two languages when they were faced with questions of the same grammatical and semantic form and complexity. This choice has been influenced by Vygotskian and sociocultural theory and the hypothesis that research on human development and acquisition of specific language skills can benefit by analyzing ways in which complex cognitive and linguistic subsystems develop currency within the ongoing community of practice.

A focus on the social activity of question-answering suggests that the design of the activity—in our context, the design of the Treasure Hunt activity—can scaffold students' monitoring of their own language and metalinguistic function. Interestingly, this monitoring and ensuing social negotiation of language form and content have a very different ambiance than language teaching activities emphasizing formal lesson materials that "drill" students on appropriate language form and content. In the contexts we have examined, awareness of language form and content and their social negotiation become an ongoing part of meaning-making activities by students. We have examined how the teacher guides and assists students' performance, and how students develop a keen sense of responsibility for accomplishing language tasks. Again, many questions remain. To the best of our knowledge, extensive studies have not been conducted on how students acquiring a second language develop a systematic understanding of their own development in two languages—though we see this awareness emerging in their negotiations of how to use their knowledge of languages as a resource for accomplishing a task in a target language.

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Appendix
Transcription Conventions

[]	overlapping
(())	transcriber's comments
(to/two)	unsure hearing
:	lengthened pronunciation
?	final rising intonation
,	listing intonation
.	final falling intonation
(·)	micropause
(0.2)	2/10 second pause
<u>I</u> AM	stressed pronunciation
°bye°	softly spoken
»bye«	rapidly spoken
{W>} {<W}	voiced writing
{R>} {<R}	reading aloud

ASSESSING FRAMING OF LITERACY ACTIVITY AMONG BILINGUAL STUDENTS

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Abstract

This paper presents a strategy for assessing elementary bilingual students' framing of activity in a cooperative learning language arts setting. This assessment strategy combines the use of ethnography and discourse analysis and is applied to make visible the students' interpretation of a teacher's model for answering story comprehension questions. As students negotiate the answer to a question, they organize their interactions in various forms of problem solving designed to address concerns stemming from the task at hand. The students' cognitive framing of activity is seen to be socially distributed in their interaction. It provides evidence of their gradual acquisition of an activity system for answering questions embedded as a recurrent cultural practice within the classroom. One utility of assessing students' framing of activity is that it shows their metacognitive orientation to literate activity, an aspect of academic skill development that is very difficult, if not impossible, to assess by quantitative scoring or description of students' performance products alone.

The revolution in assessment strategies that has occurred in the past decade is phenomenal. Fifteen years ago, it would have been absurd to suggest that performance assessments would emerge as a widely explored and implemented form of school assessment. As assessment reform has progressed, more attention has been given to capturing the complex forms of knowledge, productivity, and reasoning that count as student achievement. One may venture that 15 years from now, there will be new forms of assessment that are as radical now as performance assessment was 15 years ago. This paper explores one such possibility responsive to current cognitive science and discourse analytic studies of teaching and learning as socially constructed activity.

The target population under study is native Spanish-speaking, elementary-grade students who are beginning to learn academic literacy skills in English through a cooperative learning curriculum; heretofore these students were instructed only in Spanish. The study of the literacy acquisition of this bilingual population is important on both theoretical and practical grounds. The fact that students are in the process of acquiring a second language

can help us discover forms of social mediation that can inform theories of literacy acquisition in a second language. In addition, on practical grounds, such research can help teachers discover how to make cooperative learning more effective for students in bilingual educational settings.

Literacy Learning, Cooperative Activity, and Opportunities to Learn

There is much complexity and an active difference of opinion as to what constitutes an adequate and sound theory of how cognition and learning are socially constructed in real-world contexts. Some researchers concerned with the academic progress of children from culturally and linguistically diverse backgrounds have begun to draw extensively on the insights and views emerging from studies and accounts of situated cognition. Durán and Szymanski (1995), Goldenberg and Patthey-Chavez (1995), Gumperz, Cook-Gumperz, and Szymanski (1995), Gutierrez (1995), Lerner (1995), and Tuyay, Jennings, and Dixon (1995), for example, have conducted qualitative studies of Latino students' interaction while engaged in collaborative learning. The work of these investigators shows that students' opportunities to learn are constructed directly through face-to-face interaction.

Opportunity to learn, viewed as an *in situ* phenomenon, is processive in nature. It cannot be appraised by noting the nature of instructional materials, teacher lesson objectives, or the products generated by students as a result of instructional activity. Instead, appraisal of *in situ* opportunities to learn requires examining *how*, *why*, and *what* students do *with whom*, and *where* (Tharp & Gallimore, 1988; Tuyay et al., 1995). A key aspect of *in situ* framing of activity is the notion of *consequential progression* which we introduce here. The notion is adapted from Garfinkel's (Heritage, 1984) notion of the context-renewing and context-shaping nature of interactions:

Moment-by-moment, interlocuters design and position current action in ways that are contingent upon their interpretation of relevant previous actions and consequences for subsequent actions.

Framing of activity in interaction involves the social negotiation of a procedural representation of (a) what is going on with whom at the current moment, and (b) how what is going on relates to previous and future activity and interaction. That is, as the participants accomplish their social interactions, a procedural representation of activity is constructed and negotiated. This representation is constructed through the participants' initiations and responses to talk based upon the demands of the task and beliefs about the interactional constraints of the social context.

In the cooperative learning peer group that we examine, students orient their talk and physical movements to attend to demands of the task at hand and to its progression as situated activity.

CIRC and *in situ* Interaction in Cooperative Groups

The third- and fourth-grade bilingual classrooms we investigated incorporated cooperative learning techniques through much of the curriculum and school day; however, this study focused on students as they participated in their daily, 90-minute language arts session. Instruction in language arts was provided in Spanish or English within the same classroom. Midway through the school year, students with adequate English language proficiency were “transitioned” from Spanish language to English language instruction. The group of students on whom we will report had recently undergone this transition.

During the language arts class, teachers and students were engaged in a locally adapted version of a curriculum known as Cooperative Integrated Reading and Composition or CIRC (Madden, Slavin, & Stevens, 1986). The curriculum involves having students work in “familias” (families) of four to five students of mixed reading ability. At times, participation is in the form of whole-group instruction guided by the teacher and utilizing the well-known “recitation script” wherein a teacher calls upon individual students to answer questions (Mehan, 1985). The most common organization of student work involves students’ interaction with their partners in the familia or in preassigned dyadic pairs. The ambiance of the classroom resembles the notion of a “community-of-learners” as described by Rogoff (1991). Students acquire literacy skills in the classroom through a transformation of their participation in activities responsive to a teacher’s model for competent performance of an activity.

More concretely, the CIRC curriculum followed by the class involves students engaging in a wide range of activities that are repeated in cycles. The umbrella activity unit is known as the Treasure Hunt and typically lasts 4 to 5 days. This organizer for classroom activity is centered on a literature-based or basal story that is read and interpreted in two segments. During the first half of a Treasure Hunt, students are introduced to story vocabulary and discuss the anticipated thematic content of a story. Students then go on to read aloud consecutive paragraphs or pages of a story to each other in pairs. Subsequently, students are required to discuss and write answers to questions based on the story—typically this involves all students in a group working together. The final question discussed and answered by students is a prediction question regarding what will happen next in the story.

The second half of the Treasure Hunt proceeds in much the same way as the first half. Students go on to read aloud the remainder of the story, and they answer a set of questions. The second half of the Treasure Hunt also features students' discussion of a free writing task that is responsive to a writing prompt asking them to think about the extended meaning of the story they have just read. Other activities include dyadically administered spelling tests and authoring and evaluation of "meaningful" (nondefinitional) sentences based on target vocabulary. Throughout the process, the teacher and the teacher's aide coordinate the activities of students, provide direct instruction and modeling of desired activities, and provide individualized and group feedback to students.

The various units and subunits of the CIRC curriculum constitute a recurrent system of practices followed by students in the language arts classroom. Through their repeated accomplishment and refinement, these units and subunits come to be a culture of practice for learning language arts in the social community of the classroom. The units and subunits of CIRC are reinterpreted on a moment-to-moment basis on each occasion within the classroom (Durán & Szymanski, 1995). The organization and direction of students' interaction cannot be understood or assessed well by focusing solely on what students are expected to be doing based on the design of an activity from the teacher's perspective or as it is specified by the curriculum. The practices followed by students in carrying out activities give rise to different forms of cognitive and linguistic problem solving that are appropriate to the affordances and demands of the moment at hand.

The detailed study of student interaction in specific activities reveals the actual forms of problem solving in which students are engaged as they arise in face-to-face interaction rather than as postulated a priori on the basis of the academic demands of the curriculum. The evaluation of students' moment-to-moment interaction shows what students are capable of and what they mean to accomplish in the moment, and how they coordinate their work given a teacher's communication of curriculum expectations. The strategy of evaluating students' interaction over multiple occasions also can help us understand how students acquire increasing competence in a recurrent activity.

Towards creating assessment of *in situ* interaction, we focus on one activity—Treasure Hunt question-answering—and how assessment of interaction within this activity shows students' acquisition of particular literacy skills.

Analysis of Question-Answering Interaction

The ability to answer questions is only one of the skills students build through experience with the CIRC curriculum. We highlight analysis of this ability because it emerges as a unitized and stable activity system acquired collaboratively by students. The students we are investigating began the third grade with a limited ability to represent and understand the linguistic and semantic requirements of written question-answering in Spanish and English. At the start of the year, many students were unable to recognize the punctuation and grammatical structure of written questions, and they typically answered questions elliptically, as occurs in everyday conversational responses to questions.

As the year proceeded, students engaged repeatedly in cycles of Treasure Hunt question-answering activity. In this process, they learned to represent question-answering through modeling, guidance, and feedback provided by the teacher and through learning family-centered negotiation about how to answer questions—first in Spanish and then again in English. The teacher provided direct instruction to students in whole-group-oriented interaction. She pointed out the grammar and punctuation of questions, the underlying semantic nature of question markers (e.g., in English, “who?,” “what?,” “when?,” “why?,” “how?”), how to go about searching a text for information to answer a question, and the requirement that written answers to questions be complete sentences. Attention was also given to the norm that the beginning of an answer to a question restate or *echo* the “given” portion of a question.

As students proceed to communicate with each other about question-answering in groups, they may integrate the actions and perspectives of the teacher about how to answer questions. The talk between teacher and students on how to answer questions becomes visible in how students talk to each other about how to answer questions. This process of group “ventriloquation” (Wertsch, 1991) becomes a resource for students’ representation of cognitive and linguistic problem solving in moment-to-moment interaction.

The analyses contained in this paper emerged from the qualitative analysis of the written English pre- and posttest products of the students from one bilingual Spanish-English, third-grade classroom. The students made the transition from reading and writing in Spanish to reading and writing in English in the CIRC curriculum over the academic year. The written analysis of their English included the comparison of pre- and posttest answers on syntactically matched comprehension questions. Over time, an improvement was seen in the area of writing complete-sentence answers. From ethnographic documentation, this improvement was seen to be directly tied to an instructional strategy introduced by the

teacher and referred to as “echoing,” in which parts of the question are written to begin or to frame the answer. In turn, this echoing strategy was seen to manifest itself in peer group interactions conducted during question-answering activity.

This section is organized into three parts. First, an analysis of the teacher’s instructional discourse about how to answer questions in complete sentences by using the echoing strategy provides the context for the interpretation of the students’ pre- and posttest written data. Second, the qualitative examination of the syntactic features of the students’ written answers at the beginning and at the end of the school year highlights the aspects of question-answering that improved and developed as a result of the guided practices provided by the teacher and the peer group negotiations centered around the activity. Third, two excerpts of interaction—one teacher-peer group and one peer group interaction—are analyzed in order to see how question-answering activity is regulated interactionally and the role that assessment plays in the ongoing framing of the activity.

While the students being examined made the transition from reading and writing in Spanish to reading and writing in English over the academic year, our analysis is limited to their English performance. We consider only the students’ English written question-answering performance on the pre and post question-answering test across this transition, and their teacher-student and peer group question-answering interactions during their transitional phase. We realize that the English pretest was administered during the first month of school, when the students had not yet made the formal shift to reading and writing in English, and emphasize that we do not hope to use these data to characterize the students’ English language growth. Rather, our primary objective is to better understand how the strategy we refer to as “echoing” could develop and become a tool for students shifting to second-language literacy instruction.

Question-Answering Strategy

One of the teaching objectives at the third-grade level is to instruct students in the mechanics of writing answers to questions in grammatically complete sentences. Some teachers have tried to facilitate this writing development by highlighting the differences between oral and written language forms. Oral forms of language such as conversation are largely elliptical and are understood with reference to what was spoken earlier in the discourse. In contrast, written forms of language, especially schooled discourse, are decontextualized and necessitate the explicit expression of subjects and referents.

In her practice, one teacher instructed her students in a question-answering strategy in order to guide their writing of complete-sentence answers. Referring back to the videotape

documenting her introduction of this strategy provides a context for the interpretation of the written question-answering data collected on the pre- and posttests.

Prior to her introduction of the question-answering strategy, the teacher led the class in an activity referred to as “numbered heads.” In this activity, students discuss a set of questions in their peer groups with the understanding that each member should be able to answer each question. Then, the whole class reconvenes to conduct the numbered heads task, and a member of each group is randomly selected to answer a particular question. The numbered heads activity focuses on the content of the question’s answer and utilizes the students’ oral language abilities.

The teacher then signaled that the class is now going to practice writing the answers to the questions they have just discussed. She began the lesson by reading the question, an action interpreted by the students as a solicitation for the answer. When the teacher noticed that the students were raising their hands in a bid to answer the question, she reminded them that the answer had already been given, and she redirected their focus to the task of writing the answer and underlining the part of the question that will frame the complete-sentence answer. The two excerpts below contain the teacher’s instructional discourse that was transcribed from the videotape in its original Spanish and translated to English. Words that are underlined reflect the teacher’s intonational emphasis.

“Okay, ahora vamos a practicar en el pizarrón cómo escribir nuestra respuesta. Empezamos con la número uno. Pongan muy bien atención porque ustedes van a tener que hacer esto. La primera dice, ¿Qué era Nadarín? Ustedes ya me dijeron. Okay, ¿Qué era Nadarín? (Unos estudiantes están a pie con las manos levantadas.) No. Está bien. Ya me dijeron lo que era. Vamos a practicar cómo escribir la respuesta. Primeramente, vamos a subrayar la parte de la pregunta que va dentro de nuestra respuesta. Okay? Vamos a empezar con subrayar esto. Subrayen eso en su pregunta ahorita. (Hablando a un estudiante:) La parte que dice “era Nadarín”, good.”

[“Okay, now we’re going to practice on the board how to write our answer. We begin with question number one. Pay very close attention because you are going to have to do this. The first one says, What was Nadarín? You already told me. Okay, What was Nadarín? (Students stand up with raised hands.) No. It’s okay. You already told me what he was. We’re going to practice how to write the answer. First, we’re going to underline the part of the question that goes within our answer. Okay? We’ll begin by underlining this. Underline that in your question now. (Speaking to one student:) The part that says ‘was Nadarín’, good.”]

In the excerpt above, the teacher distinguishes between the answer that was given in the numbered heads activity and the answer that is written by using parts of the question. The action of underlining the part of the question that will appear in the answer guides the students to incorporate the explicitly expressed words needed to construct decontextualized schooled discourse. The underlined portion of the question serves as a frame for the orally produced, elliptical answers that are naturally elicited in conversation. Once the students have underlined the frame for the answer, the teacher continues her instruction by guiding them through the writing of the complete-sentence answer.

- T: okay, la número uno va a ir así pues, okay, era nadarín,
okay, question number one goes like this, okay, nadarín was,
- pero con qué empezamos cada oración?
but what do we begin each sentence with?
- S: letra mayuscula.
capital letter.
- T: y con qué termina cada oración?
and what do we end each sentence with?
- S: punto final,
period,
- T: okay, sigamos pues, ((writes on board)) era era nadarín un qué,
okay, let's continue, nadarín was was a what,
- S: pez,
fish,
- T: un pez,
a fish,
- S: un pecesito,
a small fish,
- T: un pecesito, muy bien, ((writes)) un pecesito:
a small fish, very good, a small fish
- S: negro,
black,
- T: negro, bravísimo. punto.
a small black fish, excellent. period.

In her formulation of the complete-sentence answer, the teacher uses the frame to elicit the answer from the students. She adds the article “un” (“a”) to the answer frame extracted from the question, followed by the question word “qué.” This construction, “un qué” (“a what”), serves double duty. First, it elicits an object, specifically a singular masculine object by the use of the singular masculine article “un” (“a”). Second, the question word “qué” holds the place of the “content answer” that is needed to complete the sentence. In this case, Nadarín is a fish (un pez), an object that is progressively modified in greater detail to “a small black fish.”

Students’ Written Products

A sampling of pre- and posttest written data from 11 students of the bilingual cooperative learning classroom was qualitatively analyzed for the echoing phenomenon. This analysis began by characterizing the answer in relation to its eliciting question according to a gross echo scale denoting whether the question is repeated in the answer (echo), the answer is written as if the question had been repeated (elliptical echo), or the question is not repeated at all (no echo).

Table 1 presents a sampling of the pre- and posttest answers that show differences that recurred throughout the data sample. The prompting question is of a higher order thinking level as it is framed by the open-ended “why do you think” phrasing. Also, the questions were extremely well matched syntactically; both are complex (containing two clauses), have past tense dependent clauses (“flew,” “hid”), and include a prepositional phrase in sentence final position (“through the flames,” “from her stepmother”). The answers are coded according to the above-mentioned echo descriptions and are represented in the students’ unedited versions followed by the standard orthography in brackets.

In formulating a complete-sentence answer that contains information that is linked back to the eliciting question, the conjunction plays a crucial role. The conjunction (“because,” “so,” “by,” etc.) enables two clauses to be joined, as in the linking of an answer’s frame and the answer itself. In order to conjoin these two parts of a complete-sentence answer, students must use their metalinguistic knowledge about grammar and the appropriateness of various conjunctions to particular questioning grammars. The first three student responses in Table 1 highlight this aspect of answering questions.

Table 1
 Beg-Task and End-Task Echo Performance

Student	Pretest Q: Why do you think the cuckoo flew through the flames?	Posttest Q: Why do you think Yeh-Shen hid her pet fish from her stepmother?
1	no echo To siv the sids. [to save the seeds]	elliptical echo <u>becaus</u> her step mather whas goien to kil the petfish [because her stepmother was going to kill the pet fish]
2	elliptical echo <u>pecas</u> jes es cer. [because he's scared]	elliptical echo <u>so</u> thet her stepmother dirit now [so that her stepmother didn't know]
3	elliptical echo <u>cous</u> je felt souri [cuz he felt sorry]	full echo Yhe shen hid her pet fish from her stepmother <u>bicus</u> she mit think shis going to it him. [Yeh-shen hid her pet fish from her stepmother because she might think she's going to eat him]
4	elliptical echo Bicos wi jior yn do stori de you rueras. [Because we hear in the story that you read us]	full echo Yeh-Shen hid her pet fish from her stepmother bicos she think that she was taing to sker him. [Yeh-Shen hid her pet fish from her stepmother because she thinks that she was trying to scare him.]
5	no echo ta sai ta sit frani prnin [to save the seed from burning]	full echo I think that Yeh-shen yas jaidin the fish froom jr matr picas jr stepmatr mait cil the fish. [I think that Yeh-shen was hiding the fish from her mother because her stepmother might sell the fish.]

Student 1 answered with a no-echo sentence on the pretest and later, on the posttest, wrote an elliptical-echo answer. Whereas the pretest answer is not orienting to the eliciting question, the posttest answer contains the conjunction “because,” which syntactically links it to the “why” question. In the comparison of the answers to these two grammatically matched questions, this student can be seen to have developed a sense for what the grammar of answers is, although his writing reflects the ellipsis of spoken discourse.

Both the pretest and posttest answers for Student 2 were coded in the elliptical-echo category, but it is interesting to note the variation of the connecting terms “because” and “so.” This student demonstrates an awareness of the appropriate variable use of these conjunctions in response to “why” questions.

Student 3 produced an elliptical response on the pretest and a complete echo on the posttest. The comparison of the conjunctions here also shows a progression from oral forms of discourse to written forms. In the pretest, the student writes “cous” (“cuz”) an oral form of the conjunction “because.” On the posttest, this conjunction is realized in its full written form, “bicus” (“because”).

The use of the conjunction in answering questions is central to our understanding of the echoing phenomenon. The presence or absence of the conjunction shows how a student is orienting to the writing task. When the conjunction is present, the student is incorporating the grammar of the question into the answer, because the question type elicits an appropriate conjunction (i.e., why-because; how-by; etc.) The absence of the conjunction shows the student to be relying on conversational discourse forms rather than the decontextualized written form. Further, the form the conjunction takes, be it a colloquial form (i.e., “cuz” for “because”) or a variable form (i.e., “so” in place of “because” for a “why” question), alludes to the student’s degree of grammar facility.

In our analysis of the pre- and posttest products, other issues were raised by the data. For example, Student 4 shows a pattern similar to Student 3; the pretest answer is elliptical, and the posttest answer is a full echo. The interesting thing about the comparison of these two answers is the criteria with which the student supports his reasoning. On the pretest, the “why do you think” question is treated like a factual question. “Why do you think the cuckoo flew through the flames?” is interpreted as “Did the cuckoo fly through the flames?” This strategy of simplifying the question was found to be quite common for the more grammatically complex, higher level reasoning questions. The evidence Student 4 gives to support the answer is purely experiential, having heard the story read aloud. On the posttest, Student 4 handles the question as a “why do you think” type and makes inferences about what Yeh-Shen must be thinking given her actions in the story.

Student 5 demonstrates no orientation to the question in the pretest question and writes a full-echo answer in the posttest. Of the data set, this student was the only one to incorporate “I think” into his answer frame on the posttest. Our conclusion was that for a “why do you think” question, which actually combines two questions—“why” and “do you think”—students emphasize the “why” question more than the “do you think” question.

The question word “why” is addressed in the answer by the conjunction “because,” and the “do you think” phrasing is not written but incorporated by inference. That is, when asked a “do you think” question, the person answering is also the one doing the thinking.

Teacher’s Guidelines for Students’ Self-Assessment and Students’ Self-Assessment During Question-Answering Activity

In daily practice, students’ question-answering activity is embedded in the interactions they have with their other peer group members and the teacher. How the students and teacher frame this activity through negotiation involves their assessment of what they and others are doing.

Below we examine two videotaped excerpts of classroom interaction focused on answering story comprehension questions.¹ These excerpts were extracted from a collection of video recordings gathered in a bilingual third-grade classroom. The first excerpt occurred in January and the second in May. The question-answering activity in this class was a regular, recurring activity in each story unit of the cooperative learning language arts program. In both excerpts, the students, within their peer groups, are working on writing answers to a set of comprehension questions following their reading of the story.

The first excerpt is a teacher-student interaction in which the teacher guides the students to form a complete-sentence answer. This interaction arises because, as the teacher is walking around the room to monitor the student groups, she notices that the answers this particular group has already written are not in complete-sentence form. The interaction that is managed between the teacher and these students shows an orientation and framing of the activity in which assessment of each other’s action is a crucial feature in guiding and directing the shape the activity takes.

The second excerpt is a student-student interaction that shows assessment-in-interaction to play a similar directing and framing role in the question-answering activity. The student-student excerpt is interactionally comparable to the teacher-student excerpt, and although this interaction transpired in the absence of the teacher, it was enabled by the teacher’s previous framing of the activity. Together, the two excerpts show how an activity is negotiated and structured through interaction, and how this interactional structure transfers between the occasions of its use.

Both excerpts examine the answering of “why do you think” prompted questions. In the teacher-student excerpt, the teacher notices that the students are not responding to the

¹ The transcription conventions are listed in the appendix.

question “Why do you think Peter is getting angry?” with complete-sentence answers. The students have just read the basal story entitled *Too Much Noise* and in the story, Peter is bothered by his creaky old house, so he consults a Wise Man who time and again instructs him to get various animals. All the animals create more noise at his house than he originally had.

Instead of writing complete-sentence answers, the students are writing elliptical answers that start with “because.” Elliptical answers depend upon a previously mentioned phrase for their understandability, and because of the context-embedded nature of face-to-face interaction, they are typical of conversational discourse. The teacher has instructed her students to use a strategy that facilitates their writing of complete-sentence answers. This strategy involves framing the answer by incorporating parts of the question into the answer. In this particular excerpt, to frame the answer the teacher and students negotiate what the “start” of the answer would be through a series of proposals and evaluations. Once the “start” of the answer is identified as “I think,” the teacher instructs the students to underline the part of the question to be included in the answer “I think that Peter is getting angry.” This technique is designed to help the students hold the information needed to write the complete-sentence answer. Following a task transition marker by the teacher, the students begin to fill in the rest of the sentence with the answer itself.

The teacher (lines 1, 3) begins the question-answering task by reading the question aloud and by prompting the students to begin to formulate the answer. Two students respond to the question. Student J (line 5) starts his answer with “because,” the conjunction elicited by the question word “why,” and B (line 6) partially repeats the question, dropping the question word followed by the answer to a simplified question—“Is Peter angry?”; “yes, he’s angry.”

The teacher (line 10) instructs the students to “wait” and, in so doing, assesses the way the students have projected their “start of the answer” as unacceptable.

The task is then specified to answering a reduced question, “why do you think.” She asks them what their answer will be to the question “why do you think,” which is the frame for the question. Interestingly, in an attempt to guide the students to frame their answer by using parts of the question, the teacher focuses their efforts on transforming the question frame “why do you think” into an answer frame (I think ... because). In posing this reduced question, the teacher emphasizes the question word, “why,” highlighting it as the topic of activity.

Excerpt I: Why do you think — Teacher-Student Interaction

In the following excerpt, T is the teacher and J, A, B, and E are students in the peer group.

Why do you think Peter is getting angry?

- 1 T: {R>} why do you think [Peter] is getting angry, {<R}
- 2 A: [°why]
- => 3 T: how's that answer gon[na start,?]
- 4 B: [°do you°]
- => 5 J: because
- => 6 B: do YOU think Peter is angry, [»yes he]'s angry«
- 7 T: [why,]
- 8 T: why do you think-
- 9 J: because the wish [bo-]
- => 10 T: [wait] a minute, when I say WHY do you think,
- 11 what is your answer going to be,?
- => 12 B: why do you think Peter's angry=cuz all the an-
- 13 animals are doing, [like making noise]
- 14 T: [»wait a minute,wait«] a minute.
- 15 why do you think
- 16 (.) what [is your answer going to be,?]
- 17 E: [because we are t(h)inking]
- 18 T: start the answer, just start the answer.
- 19 ?: °I know.°
- 20 T: why do you think
- 21 E: ((raises his hand)) oh, I know,
- 22 because i- [be]cause
- 23 T: [no]
- => 24 J: I think
- => 25 T: ah:, you hear how he started the answer?
- 26 (0.2)
- 27 what did he say?
- 28 B: a h
- 29 E: I think
- => 30 T: I think, so that's how you're gonna start,
- 31 I: think, and you're gonna underline,
- 32 I think Peter is getting angry becau:se ((underlines))

33 (1.0)

34 A: I:

35 B: I think

36 E: becu-

=> 37 T: now

=> 38 E: because he have a little ani-mals animals

=> 39 T: because he has a lot of animals=

40 B: =Peter=

=> 41 T: =what do you think,?

42 B: ah[::]

=> 43 T: [I]think

=> 44 B: because the floor squeaks and the uhm leaks on
45 roof, they (go) squish squish.

=> 46 T: because there's a lot of noises

47 J: the bed squ[eaks]

48 T: [lot] of animals, lot of noises,
=> 49 what do you think,?

=> 50 A: uhm becau:se, [because]

51 B: [(kettle,)] (kettle.)

=> 52 T: I [think] Peter is getting angry because

53 A: [cuz]

=> 54 A: I think Peter is getting angry because it make a lot of
55 noise in [the house,?]

56 T: [because the]re's too much noise in his house

=> 57 J: I think this Peter's getting ma:d because the wish
58 man's telling 'im 'h to ge:t more animals so that
59 his house gon' be mo- more noisy

60 T: okay, becau:se, who's telling him? ((starts to write))

61 J: oh-

=> 62 T: I think Peter is getting angry because there's too much
63 noise and too many animals at his house,
64 (0.2) and who tells him?

65 J: »the wish man«

66 T: okay, too much noise a:n' too many animals and the
=> 67 wishman tells him to get (.) MORE. good answer.

Having highlighted the question word, Student B (line 12) replies with an unintegrated echo answer or an elliptical sentence that repeats the question and leads into the answer through the conversational form of “because”: “cuz.” This is evaluated as unacceptable as well, as the teacher (line 16) makes a third attempt to get the students to “give the answer,” an instruction that is modified in line 18 to “just start the answer.” This phrase, “just start the answer,” minimizes the task of answering to beginning the answer only, narrowing the interpretation of what “answering” means in this context. In phrasing her instructions in just this way, the teacher sets up an opposition between two tasks: “starting the answer” and “giving the answer.” Amidst these instructions, the teacher continues to repeat the question frame “why do you think.”

In line 24, J produces the phrase “I think” which is immediately highlighted by the teacher who affirms it as the start of the answer in the next line. With this phrase identified, the teacher leads the students through the process of incorporating the remaining parts of the question into the answer’s frame: Start with “I think” and underline “I think Peter is getting angry.” She ends her answer frame with the connector “because,” which leads into the next part of the answer.

The teacher (line 37) marks the shift from the task of starting of the answer to the answering task in her utterance of the phrase “now,” and immediately she receives an answer from E (line 38) that is syntactically compatible with the already created answer frame. That is, the answer frame (“I think Peter is angry)” and E’s answer (“because he have a little ani-mals animals) together form a grammatically complete sentence. The teacher implicitly assesses his answer favorably in her modified repeat of the answer. What follows are a series of elicitations, “what do you think,” to answer and complete the sentence. Progressively, the students’ answers become more complete as the teacher’s involvement is decreased. The teacher (line 43) prompts B to answer by leading him with the initial answer frame phrase “I think,” and B (line 44) responds with an elliptical answer starting with “because.” The teacher (line 49) then prompts A to answer, and when she hesitates to answer, the teacher repeats the entire answer frame. This student, A (lines 54–55), responds with a complete-sentence answer that uses the answer frame to formulate the answer itself. Finally, verbally unprompted to answer, J (lines 57–59) produces a complete answer by using the answer frame. The question-answering activity is closed by the teacher’s repeat of the completed answer (lines 62–63) and her explicit evaluation of the interactionally constructed product—“good answer.”

The student-student excerpt below shows a framing of the question-answering activity similar to that in Excerpt I. The students are answering the question “Why do you think

dinosaurs were called terrible lizards?”, which is from the basal article entitled *Dinosaur Facts*. Excerpt II contains the beginning segment of the complete question-answering activity, and the appendix contains the complete transcript of the excerpt.

The students begin the activity by focusing on the question. They do this not by reading it aloud, as the teacher did in the prior excerpt, but by naming it as the next task, “number five.” After announcing the particular question, S (lines 3–4) responds to the question with an elliptical answer to the question, “because they’re small and they look like lizards.” As in the prior example, this elliptical response is naturally elicited by the context of their informal conversational interaction.

Excerpt II: Why do you think — Student-Student Interaction

Why do you think dinosaurs were called terrible lizards?

- 1 S: number five.
2 (0.2)
=> 3 S: .h because (.) the: (.) because they're
4 small and the they look like lizards.
=> 5 D: no (0.4) yeah wait, yeah but where do you start from?
6 (1.2)
7 S: I dunno heh heh heh
8 ()
=> 9 »I think« I think
=> 10 D: okay, {W>} I:: think
11 ((D and S begin writing answer))

D (line 5) responds to the answer, at first by rejecting it, then by accepting it, instructing her to “wait.” It seems S has answered appropriately, but skipped a part of the task, that of creating the answer frame. D (line 5) questions S about where to start the frame of the answer in a way that almost parallels the language used by the teacher (“start the answer, just start the answer”). S (lines 7, 9) initially responds in a humorous way, saying she doesn’t know and laughing, but she then provides D with the “start” of the “why do you think” question—“I think.” D (line 10) agrees with her response, repeating the phrase as she begins to write it. Both students proceed with the task of writing of the answer.

In this excerpt, D provides S with assessments of her question-answering activity, making sure she does not skip the answer-framing task. The incorporation of mediated practices such as underlining the part of the question that will be included in the answer is

guiding D to “do” the steps of the activity. Without certain mediational practices, this task would be entirely conversational. Instead, the conceptual process of answering is linked to the physical process of manipulating the written language of the question.

Conclusions and Implications

Both excerpts above show that the activity structuring of the question-answering activity is the combination of two tasks: (a) creating the frame for the answer by using the question as a resource, and (b) answering the question in a form appropriately connected to the frame. Further, the ways in which these tasks are performed are regulated and assessed by the others engaged in the task. Current turns at talk assess the prior turn’s talk and guide the direction of the next turn. So, in the student-student excerpt, Student D’s conditional acceptance of the answer (“yeah, but”) led to a question that directed S to engage the task of creating an answer frame.

The analysis of videotaped classroom interactions centered around the question-answering activity shows how the interactants assess one another and use these assessments to structure and design their future interactions. Based on previous interaction, students recreate a model for how to answer questions consistent with our notion of *consequential progression*. In both excerpts, the unacceptability of an elliptical answer as a complete sentence is resolved by creating a frame for the answer. The frame provides a sentence structure for an elliptical answer, and together the frame and elliptical answer form a complete sentence. For example, the answer to the question “Why do you think Peter is getting angry?” is framed by the phrase “I think Peter is getting angry because,” which, combined with an elliptical answer, “because there is too much noise,” forms a complete sentence. In Excerpt I, the teacher’s actions and assessments guided the students through the framing of the activity; in Excerpt II, the students were guides for each other, showing the transferability of the interactional structures that frame the question-answering activity.

Our work on question-answering has interesting implications for assessment of classroom *in situ* activity as achievement. Through the lens of the foregoing analyses of interaction we see that students negotiate and maintain regulation of their interaction based on an activity frame established by the teacher as a learning goal and transmitted through the interaction of the teacher with students. The analyses make visible to us how students’ regulation of their interaction itself is based on students’ moment-to-moment assessment of their satisfactory enactment of a question-answering frame. Our work raises to the foreground how the moment-to-moment construction of subjectivity *is* learning and the construction of enduring classroom culture.

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Appendix

Transcription Conventions

[]	overlapping talk
()	unsure hearing
(())	transcriber's comments
:	lengthened pronunciation
?	final rising intonation
,	listing intonation
.	final falling intonation
(.)	micropause
(0.2)	2/10 second pause
WOW	stressed pronunciation
-	cut off pronunciation
°bye	softly spoken
»bye«	rapidly spoken
.h	in breath
h	out breath
{R>}{<R}	reading aloud
{W>}{<W}	voiced writing
{U>} {<U}	voiced underlining
*	word is untranslatable to English
@bye@	word is said laughingly

**Complete Transcription of Excerpt II:
Why do you think — Student-Student Interaction**

Why do you think dinosaurs were called terrible lizards?

1 S: number five.
2 (0.2)
=> 3 S: .h because (.) the: (.) because they're
4 small and the they look like lizards.
=> 5 D: no (0.4) yeah wait, yeah but where do you start from?
6 (1.2)
7 S: I dunno heh heh heh
8 ()
=> 9 »I think« I think
=> 10 D: okay, {W>} I:: think
11 ((D and S begin writing answer))
12 ===== ((9 lines omitted)) =====
13 D: I think the FIRST dinosaur
14 S: the (0.2) [the]
15 D: [the]
16 (1.2)
17 S: dinosaur
18 (0.8)s
19 D: first (.) D-I-N-O-°S-U-
20 S: ma- was like
21 D: A-U-
22 S: like
23 D: °R
24 (1.0)
25 S: a
26 D: NO, .h the- the first dinosaur were: ca:lled
27 (0.2)
28 S: terrible lizards.
29 (1.0)
30 Y: I think
31 (3.0)

32 S: there. ((finishes writing))
33 (3.0)
34 Y: I think wh- I think
35 ?: no
36 D: lizards beCAUSE °B-E-C-A-U-S-E°, because why?
37 (3.0)
38 D: because why,? (.) because WHY:, Sonia because
39 WHY:, (0.8) SO:nia, be[cause] why
40 S: [what]
41 (0.6) what
42 D: (in the class)
43 S: prediction? (0.4) I already did it
44 D: no, not prediction, number five.
45 S: oh
46 (3.4)
47 D: because °because
48 S: oh, do number five,
49 want me to tell you mine, oh,
50 {R>} I think the first dinosaur
51 .h was like a terrible (.) lizard becau:se {<R}
52 G: ()
53 S: he- he looked like a lizard and he eats
54 like a lizard.
55 D: because he looks like a lizard
56 S: and eats eheheh
57 G: and eats? ()
58 S: ((to G)) gimme your own pencil, little weasel,
59 gimme my pencil you're a weasels
60 D: because he looks (1.0) he loo:ks like L (.)
61 L-I-K-E like a L-I
62 D: lizard and (.) °eats (0.4) °like
63 A-L-I-Z-A-R-D and he looks like a lizard.
64 S: looks an' EATS like a lizard=.