

10. TEACHER-STUDENT INTERACTION AND LANGUAGE LEARNING

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This chapter reviews literature on recent developments in teacher-student interaction and language learning. Based on a sociocultural perspective of language and learning, the studies are drawn from three types of classrooms: *first* language classrooms; *second* language classrooms, which include contexts in which the language being learned in the classroom is also the language of the community; and *foreign* language classrooms. Foreign language learning contexts are those in which exposure to and opportunities for target language interaction are restricted for the most part to the language classroom. Across these three areas, attention is given to studies that investigate the specific means used in teacher-student interaction to promote language learning.

Recent theoretical insights and research on classroom interaction have broadened, and in many ways transformed, our understanding of its link to language learning. Current understandings are based on the premise that much of our linguistic, social, and cognitive knowledge is intimately tied to our extended participation and active apprenticeship in sociocultural events and activities considered significant to our everyday worlds. Because schools are important sociocultural contexts, their classrooms, and more specifically, their discursively-formed instructional environments created through teacher-student interaction, are consequential in the creation of effectual learning environments and ultimately in the shaping of individual learners' language development.

The purpose of this review is to examine recent developments in research on classroom interaction and language learning that draws on this perspective. Due to space and topic constraints, we limit the main review to studies on teacher-whole-group face-to-face interaction in language classrooms. Before discussing current research, we provide a brief overview of some of the major premises of a sociocultural perspective on language learning and the significance of classroom interaction. We conclude with a brief discussion of recommendations for future research.

Sociocultural Perspective on Language Learning

A sociocultural perspective on language learning is based on theoretical considerations and empirical investigations of learning drawn from a variety of disciplines including human development (e.g., Berman & Slobin, 1994; Ninio & Snow, 1996; Reed, 1996), cultural psychology (e.g., Cole, 1996; Tomasello, 1999; Vygotsky, 1986; Wertsch, 1991, 1994), linguistic anthropology (Ochs, 1988; Schieffelin & Ochs, 1986), and social theory (e.g., Gergen, 1994; Shotter, 1996, 1997). According to this perspective, language development begins in our social worlds, constituted by a varied mix of regularly occurring goal-directed intellectual and practical activities. Through our repeated participation in these activities with others who are more knowledgeable or expert, we transform the specific means for realizing them into individual knowledge and abilities. That is, we learn not only the structural components of our language; we also acquire the communicative intentions and specific perspectives on the world that are embedded in them, and thus learn how to take actions with our words (Tomasello, 1999). It is our eventual internalization or self-regulation of the specific means for realizing our activities, including the particular world views embodied in them, that characterizes psychological growth.

From this perspective, learning is considered not the internal assimilation of structural components of language systems. Rather, it is a process of “changing patterns of participation in specific social practices within communities of practice” (Gee & Green, 1998, p. 147). Because schools are important social institutions, the activities constituting their classrooms are considered fundamental sites of learning. Because most learning opportunities are accomplished through face-to-face interaction, its role is considered especially consequential in the creation of effectual learning environments and ultimately in the shaping of individual learners’ development. The next section provides a brief overview of the nature of classroom interaction and its links to learning. Because the review is concerned solely with teacher-student interaction, the discussion will address only that facet of classroom talk.

Classroom Interaction

Classroom interaction is one of the primary means by which learning is accomplished in classrooms. In language classrooms, it takes on an especially significant role in that it is both the medium through which learning is realized and an object of pedagogical attention. Through their interactions with each other, teachers and students construct a common body of knowledge. They also create mutual understandings of their roles and relationships, and the norms and expectations of their involvement as members in their classrooms. That is to say, through interactions with their teachers, students are socialized into particular understandings of what counts as the official curriculum and of themselves as

learners of that subject matter. The patterns of interaction also help define the norms by which individual student achievement is assessed. Students draw upon these patterns and norms to participate in subsequent classroom activities and thus they are consequential in terms of not only what students ultimately learn, but also, more broadly, their participation in future educational events and the roles and group memberships that they hold within these events.

Initiation-Response-Evaluation (IRE)

Earlier research on teacher-student interaction focused on describing the patterns typical of interaction found in classrooms (Barnes, 1992; Cazden, 1988; Mehan, 1979). Findings from these studies revealed that although student populations may vary from classroom to classroom and school to school, one particular pattern of interaction, the teacher-led three-part sequence of Initiation-Response-Evaluation (IRE), typifies the discourse of western schooling, from kindergarten to the university. Commonly referred to as the recitation script, or triadic dialogue (Lemke, 1990), the pattern involves the teacher posing a question to a student to which he or she usually already knows the answer. Students are expected to provide a brief but correct response to the question, which is then evaluated by the teacher with such phrases as “Good,” “That’s right,” or “No, that’s not right.” Each round of interaction typically involves one student at a time with the teacher moving on to ask a question of another student once he or she has evaluated the prior student’s response.

In the IRE pattern of interaction, the teacher plays the role of expert, whose primary instructional task is to elicit information from the students in order to ascertain whether they know the material. He or she also serves as gatekeeper to learning opportunities. It is the teacher who decides who will participate, when students can take a turn, how much they can contribute, and whether their contributions are worthy and appropriate. It has been argued that extended use of the recitation script severely limits students’ opportunities to talk through their understandings and try out their ideas in relation to the topic-at-hand, and, more generally, to become more proficient in use of intellectually and practically complex language.

Using data from her own and others’ classrooms, Cazden (1988), for example, revealed how the use of this pattern more often facilitated teacher control of the interaction rather than student learning of the content of the lesson. Similarly, in his examination of teacher-student interaction from several classrooms, Barnes (1992) found that the frequent use of the IRE sequence did not allow for complex ways of communicating between the teacher and students. As a final example, in her study of ‘journal sharing’ in language arts classrooms, Gutierrez (1994) found that in classrooms in which the activity was based on a strict use of the IRE, the teacher did most of the talking, commenting or

elaborating on individual student's journal entries, while the students were limited to brief responses to the teacher's questions.

While many of the earlier studies on classroom interaction have argued that prolonged participation in the recitation script provides limited learning opportunities, few have actually documented links between long-term participation and achievement. One recent investigation is a notable exception. In one of the most comprehensive studies of teacher-student interaction, Nystrand and his colleagues (Nystrand, 1997) examined 112 eighth and ninth grade language arts and English classrooms. He found that the overwhelming majority of teachers used the recitation script almost exclusively in their classrooms and that its use was negatively correlated with learning. More specifically, it was found that students in classrooms whose interaction was limited primarily to the IRE script were less able to recall and understand the topical content than were students who were involved in more topically-related, participatory discussions. Because the use of the recitation script was more prevalent in lower-track classes, Nystrand argued that such teacher-student interaction was a significant factor in creating inequalities in student opportunities to develop intellectually complex language knowledge and skills.

Although most of the studies on classroom interaction have occurred in first language classrooms, a few recent studies have confirmed the ubiquity of the IRE pattern of interaction in second and foreign language classrooms as well. In her recent examination of junior form (comparable to junior high school in the U.S.) English language classrooms in Hong Kong, for example, Lin (1999a, 1999b, 2000) found that with one exception the recitation script was the common pattern of interaction. And, like Nystrand, she found that it most often occurred in classrooms comprised primarily of students from socioeconomically disadvantaged backgrounds. Lin extended her examination to looking at how students acted to resist what she argued was a stifling, alienating form of learning. In one classroom, for example, Lin reveals how one student attempted to provide a linguistically playful rendition of the expected contribution in response to a teacher question. However, rather than respond to this playfulness, the teacher kept to the narrow confines of the IRE, and reiterated his demand for a response based on factual information drawn from the story they were reading together. Lin argues that while such play can reveal students' language creativity, it also serves to alienate them even further from the official instructional purpose, if such contributions are constructed as unruly or uncooperative. By holding to the strict IRE pattern of interaction, the teacher in this classroom, Lin argued, pushed students "further away from any possibility of developing an interest in English as a language and culture that they can appropriate for their own communicative and sociocultural purposes" (2000, p. 75).

IRF and Dialogic Interaction

In an attempt to tease apart some of the intricacies of teacher-student interaction, some have begun to take a closer look at the IRE. In an early paper, Wells (1993) proposed a reconceptualization of the IRE pattern. His proposal came about from having spent extensive time in a number of science classrooms with teachers he considered expert. His observations revealed enthusiastic, extended student participation in class discussions, although initial analysis of transcriptions of the interactions revealed what looked to be a healthy number of IRE sequences. Upon closer inspection, however, he found subtle changes to the standard pattern, primarily in the third part. While the teachers Wells observed often asked questions of students, instead of closing down the sequence with a narrow evaluation of their responses in the third part of the three-part sequence, the teachers more often followed up on them, asking students to elaborate or clarify, and in other ways treated their responses as valuable contributions to the ongoing discussion. Wells concluded that when the third part of the IRE sequence contained a teacher evaluation (E) of a student response, it severely constrained students' learning opportunities. However, if, instead of evaluating student responses, the teacher followed up on their responses (F) by asking them to expand on their thinking, justify or clarify their opinions, or make connections to their own experiences, the teacher-directed pattern of interaction enhanced opportunities for learning. Thus, he concluded that the typical three-part interaction exchange found in classrooms is neither wholly good nor wholly bad. Instead, it can only be evaluated by looking at how it unfolds moment-to-moment on particular occasions in particular classroom contexts.

Hall (1998) confirmed these subtle differences in the ways teachers directed the classroom interaction. In her study of a high school Spanish-as-a-foreign language classroom, it was found that just a slight variation to the third part of the standard three-part IRE exchange made a subtle but significant difference in student participation in whole group interactions with the teacher. One group of students received more interactional attention from the teacher in that in addition to evaluating their responses, she often followed up with additional questions, or asked them to elaborate. The teacher also sometimes handed the interactional floor to this group of students, allowing them to initiate an exchange or take over other students' turns. In contrast, she provided subtly different opportunities for participation to students in the other group. While these students were called on by the teacher to respond to her inquires almost as often as the other group participants were, the teacher's response was most often an evaluation of the students' contributions. In some cases, student responses were completely ignored. That is, the teacher sometimes did not even acknowledge the student's response and instead moved on to ask a question of another student. Moreover, these students were not given many chances to initiate exchanges. And, when they

tried to, their initiations were not taken up by the teacher as frequently as those of the other group were.

These subtle differences in the third part of the triadic exchange, Hall argued, resulted in the formation of two groups of students, a primary group and a secondary group, each with distinct participatory rights and responsibilities. These differences, in turn, were used by the teacher as a partial basis for her evaluation of the learners' midyear performances. When asked to discuss individual learners' performances in the class in an interview with the researcher, the students the teacher considered active, creative, and successful users of Spanish happened to be those to whom she gave more interactional attention. Like Wells (1993), Hall concluded that subtle changes to the standard pattern of interaction, primarily to the third part of the triadic dialogue, can create significantly different language learning environments.

Nassaji and Wells (2000) provide a more comprehensive discussion of various options for the follow-up move in the triadic dialogue. The data on which their discussion is based come from a six-year collaborative action research project involving nine elementary and middle school teachers and three university researchers. Their focus in the project was on teacher use of follow-up moves and the contexts in which they occurred. They were specifically interested in examining the links between the types of initiating moves and the kinds of follow-up moves they called forth. In addition to finding that follow-ups to student responses served a wide range of functions, Nassaji and Wells found that the choice of follow-up move determined to a large extent the direction of subsequent talk. Just as suspected, teacher contributions that evaluated rather than encouraged tended to suppress student participation. Conversely, teacher follow-ups that invited students to expand upon or qualify their initial responses opened the door to further discussion, and provided more opportunities for learning.

The potential value of the IRF has been confirmed in other recent studies as well. For example, in the study of language arts classrooms noted above, Nystrand (1997) found a subtly different pattern of interaction in higher-tracked classes. Here, the teacher's third part contribution to the pattern was comprised of what Nystrand regarded as high-level evaluation. In addition to ratifying the student's response, the teacher incorporated it into the discourse of the class usually in the form of either an elaboration or a follow-up question. In so doing, Nystrand argued, the teachers affirmed student participation in the process of knowledge building, challenged them to extend their thinking and engagement with the subject matter, and provided opportunities for them to take ownership of the ideas. These strategies, in turn, helped to create an inclusive classroom culture that valued participation and learning, and ultimately enhanced students' academic performances in the language arts classroom.