This article compares ordinary conversational topics and targeted second language (L2) forms for their effectiveness in building and maintaining classroom discourse cohesion. In this study, 16 learners participated in 2 lessons, 1 with teacher turns determined by a grammatical object of instruction, and the other with turns determined by conversation topics. Based on research by Sperber and Wilson (1995) and Vuchinich (1977), extended latency gaps and remedy sequences in learner turns were taken as evidence of poor cohesion. Both lessons were videotaped, transcribed, and coded. Of the 16 learners, 5 volunteers viewed the videotapes and offered written explanations for their extended latencies. Longer latencies and more frequent remedy sequences occurred during the grammatically-determined discourse, with volunteers likewise indicating greater difficulty understanding the instructor, than during the conversational lesson. It is argued that for grammar instruction to work effectively, a focus on form must be transparent as the instructional objective, and targeted L2 forms must themselves be properly treated as discourse topics.

THE ISSUE OF HOW BEST TO FACILITATE the acquisition of second language (L2) grammar in classroom instruction has been extensively treated in the theoretical and pedagogical literature, but has yet to be conclusively resolved (cf. Doughty & Williams, 1998; Hinkel & Fotos, 2002; Krashen & Terrell, 1983; Robinson, 2001; Rutherford, 1987). Nonetheless, classroom-based research has suggested that the impact of instruction on acquisition is often indirect, and that optimal classroom practices draw learners’ attention to grammatical form while also providing opportunities for creative and meaningful target language use (Ellis, 1997; Larsen Freeman & Long, 1991; Norris & Ortega, 2000). Methodologists have argued that the key to achieving this balance is the provision of comprehensible input and the contextualization of L2 grammatical forms within activities designed to reflect authentic communicative tasks (e.g., Hall, 2002; Lee & VanPatten, 2003; Omaggio Hadley & Terry, 2000).

Nonetheless, for many instructors, contextualizing grammar instruction within meaningful interaction is a challenge, given that L2 interaction outside the classroom only infrequently addresses L2 grammar overtly, but successful communication nonetheless requires grammatical accuracy. Grammar instruction in actual practice often lacks the natural topic cohesion of discourse outside the classroom because the dual objectives of accuracy and meaningful interaction compete with each other in the implementation of instructional activities (Hall, 1995; Walz, 1989). Often, teacher turns during purportedly communicative activities are determined by L2 grammatical paradigms and the quest for accurate morphosyntax, with little consideration given to the broader discourse pattern that emerges in the interaction. Because cohesion is an essential element for L2 communicative and interactional competence (Canale, 1983; Canale & Swain, 1980; Hall, 1995, 1999), the present article investigates how un-
Throughout the paper, the term grammar instruction will refer to any classroom activity or interaction that sets accuracy with L2 formal properties as its principal objective, and cohesion will refer to any unifying purpose or meaning that extends across discourse turns.

CURRENT PERSPECTIVES ON GRAMMAR INSTRUCTION

Much of the current discussion on how best to approach L2 grammar instruction has centered on how explicit or implicit the treatment of grammar ought to be. Evidence of common stages in L2 grammar development, coupled with the lack of a direct connection between instruction and acquisition, has led some scholars to propose that L2 grammar be treated implicitly, through corrective feedback provided when communication breakdowns occur during otherwise unrelated, meaning-oriented tasks (Doughty, 2001; Doughty & Varela, 1998; Gass, 1997; Long & Robinson, 1998; Pica, 1994). Such feedback is said to push learners to reanalyze non-target-like utterances and internalize correct forms. Other scholars meanwhile have argued for a more explicit treatment of L2 grammar, where metalinguistic discussions of target structures either precede or accompany meaning-oriented activities in order to provide advance organizers of procedural knowledge for accurate language use (Adair-Hauk & Donato, 2002; DeKeyser, 1998; Lightbown, 1998; Swain, 1998; Terrell, 1991; VanPatten, 1996).

However, whether the proposal be implicit or explicit, argumentation for grammar instruction usually centers on learners' developmental readiness to acquire targeted structures and the availability of cognitive resources to deal with L2 forms both accurately and meaningfully. Little attention is given to the pragmatics involved, and to how the introduction of accuracy as a discourse objective is perceived and understood by learners. Long (1996), for example, described ideal feedback in implicit grammar instruction as "semantically contingent speech . . . including repetitions, extensions, reformulations, rephrasings, expansions, and recasts . . . which immediately follow learner utterances and maintain reference to their meaning" (p. 452). Clearly, the assumption is that learners can process information on ill-formed utterances while simultaneously engaging in some other discourse topic, an assertion that Doughty (2001) indeed supported with evidence that individuals can best recall an utterance immediately after it is spoken. Similarly, proponents of explicit grammar instruction often argue from the perspective of skill acquisition theory (e.g., McLaughlin, 1990; Singley & Anderson, 1989) that classroom activities should be sequenced from controlled to more open-ended use of targeted forms, so that procedures for communicative use of the forms can become automatized (DeKeyser, 1998; Paulston, 1972; Rivers, 1987; Robinson, 2001; Skehan, 1998). As in implicit approaches to grammar instruction, the criteria for proper activity design in explicit instruction focus primarily on ensuring that learners can dedicate sufficient cognitive resources to noticing targeted structures in the input and incorporating them into their speech (e.g., Lee & VanPatten, 2003; Loschky & Bley-Vroman, 1993; Schmidt, 1995). Although familiarity with and orientation toward task performance are also mentioned as key factors in instructional success (e.g., Ellis, 2003; Lee, 2000; Skehan, 1998), the issue of whether learners accurately understand what the instructor intends by designing activities around a particular grammar structure is not often addressed directly.

Evidence of Miscommunication in the Classroom

An extensive body of research has demonstrated success in improving learners' grammatical accuracy through both implicit corrective feedback and instruction explicitly targeting specific L2 structures (e.g., DeKeyser, 1997; Long, Inagaki, & Ortega, 1998; Mackey, 1999; Norris & Ortega, 2000; Pica, Holliday, Lewis, & Morganthaler, 1989; Polio & Gass, 1998; Toth, 2000; VanPatten & Cadierno, 1993; White, Spada, Lightbown, & Ranta, 1991). Nonetheless, a number of studies have also documented difficulties in attaining instructional objectives due to misinterpretations of instructors' intentions. In a study by Mackey, Gass, and McDonough (2000) for example, implicit feedback provided as recasted corrections during meaning-oriented tasks was more often than not mistaken by learners for noncorrective repetitions similar to the back-channel cues that characterize natural conversation. Similarly, Roberts (1995) reported that three L2 Japanese classroom learners watching a videotape of their class were able to identify teacher turns intended as feedback only 25% to 33% of the time and that they could identify the nature of the error only 16% to 25% of the time. In research on Canadian immersion classes, Lyster (1998)
and Lyster and Ranta (1997) likewise found that learners failed to repair or even acknowledge structural errors in their utterances 69% of the time after recasts, with learners more often responding as though recasts were topic continuation rather than feedback moves.

Where explicit instruction targeted specific grammar structures, Hosenfeld (1976) demonstrated through learner self-report data that the instructions in written exercises were often incomprehensible to learners, and that even when learners understood them, the strategies for task completion often failed to employ targeted structures as intended. Likewise, in transcripts from a U.S. high school Spanish class, Hall (1995) found that instructor attempts to focus learner attention on particular L2 grammatical items often produced incomprehensible discourse structures. In one example, the instructor used the occasion of playing a song in class to practice the Spanish verb gustar ‘to like’. After repeating several cycles of questions about whether the students liked the music that was played, one student finally called out, “Aw man, where you goin’?” (p. 44). Hall observed that misunderstandings such as this typically arose because students attempted to respond to the topical content of the instructor’s question instead of simply supplying a targeted L2 form. Lee (2000) likewise found that when university-level L2 instructors attempted to elicit target forms during open-ended class discussions, they were often met with extended silence instead. Even in small-group, task-based interactions, Brooks and Donato (1994) and Platt and Brooks (2002) showed that despite instructions, expected procedures for task completion are often unclear to learners initially and that considerable amounts of talk are dedicated to clarifying procedures before learners engage in the task itself.

Although communication difficulties such as these could have a number of possible explanations, part of the problem clearly lies in the assumption that L2 structures themselves can sustain discourse during interactions that are ostensibly about something else. In Hall’s (1995) study for example, the instructor used repetition of the verb gustar as the basis for cohesion while overtly asking learners about their music preferences. Similarly, the stony silences in Lee’s (2000) study came when attempts to elicit target forms occurred during discussions about social or cultural topics. Likewise, the recast failures in Lyster’s (1998) study and Lyster and Ranta’s (1997) study happened during content-based instruction on unrelated academic subjects.

VanPatten (1996) argued that without overt provocation, learners instinctively focus on meaning before form when exposed to L2 input. One explanation for communication failures during grammar instruction may be that too often the meaning serving as the overt purpose of the interaction (i.e., personalized questions, cultural topics, picture comparisons, etc.) has no topical connection to the goal of improving accuracy. Whatever the benefits of grammar instruction may be, it is clear that miscommunications often occur not at the morphosyntactic level of utterance decoding, but rather at the pragmatic level of utterance interpretation. Can it be, then, that grammar instruction often violates some fundamental principle of communication?

Real-World Expectations of Communication

Building on the ground-breaking work of Grice (1975), Sperber and Wilson (1982, 1995) and Wilson (1994) have proposed Relevance Theory to explain how interlocutors interpret each others’ intended meanings. Their theory holds that discourse participants expect all interlocutor utterances to be “optimally relevant,” meaning that utterances are both worth the effort to process and reflective of a speaker’s best effort to be “relevant” (Sperber & Wilson, 1995, p. 270). Utterances are said to be “maximally relevant” when, with little processing effort, they interact with the hearer’s contextual assumptions to yield conclusions “derivable neither from the new information alone, nor from the context alone, but from the new information and the context combined” (Wilson, 1994, p. 45). When an utterance fails to build upon contextual assumptions in this way, the expectation of optimal relevance leads the hearer to search for a context that will make a maximally relevant interpretation possible (Sperber & Wilson, 1982). This search may require extra processing time as hearers reevaluate the interaction to decipher a speaker’s intended meaning. Thus, utterance interpretation depends on an understanding of the discourse context and crucially involves “more than mere linguistic encoding and decoding” (Wilson, 1994, p. 38). In addition, “context” here is seen as much more than “preceding linguistic text, or the environment in which the utterance takes place,” but rather includes the full set of assumptions “brought to bear in arriving at the intended interpretation” (p. 41). Thus, communication failure is predicted when contextual assumptions among interlocutors fail to coincide significantly.

Although completed prior to Sperber and Wil-
son’s work, a study by Vuchinich (1977) on discourse participants’ reactions to conversational non sequiturs corroborates their theory. Research accomplices posing as fellow participants sat down next to participants in a waiting room and engaged them in conversation. After establishing a topic, noncohesive turns were inserted in the discourse and the participants’ reactions were observed. Vuchinich reported that with “faultless regularity” (p. 236) participants responded overtly with extended silent latency gaps and attempts at topic repair. In one case the comment, “Monopoly is a really fun game,” occurred during a discussion of final exams. A 2.2-second latency ensued, followed by the participant asking, “Why do you bring that up?” (p. 235). By contrast, such latencies and repair moves scarcely occurred following utterances that adhered to logical topic development. As a result, Vuchinich concluded that discourse participants were “systematically and measurably sensitive to cohesion among turns” (p. 255), a finding that clearly coincides with Relevance Theory. Furthermore, although they did not cite Vuchinich in their work, Sperber and Wilson’s (1995) claim that less-relevant utterances cost extra processing time and effort was borne out by Vuchinich’s consistent observation of latency gaps and topic repair moves following non sequiturs.

THE PRESENT STUDY

Given the documented potential for miscommunication in grammar instruction, the question arises as to whether L2 forms do indeed provide poor cohesion in classroom discourse. Carroll (2001) argued convincingly that grammar-oriented feedback in noninstructional settings is highly “irrelevant,” and that interlocutors must recognize a significant topic shift from meaning-oriented interaction in order for it to be effective (p. 378). Nonetheless, one could argue that learners entering L2 classrooms would expect, and perhaps even desire, discourse that deviates from natural conversation in a number of ways, including the presence of explicit grammar practice and the provision of feedback. In addition, extended latencies between classroom discourse turns may be desirable if they represent time spent assembling appropriate responses rather than time wasted wondering what the instructor means. Still, the research reviewed thus far suggests that regardless of these expectations, misinterpretations of instructors’ intentions often occur. The goal of this study, then, is to assess whether or not L2 form is indeed more or less effective than conversational topics in establishing discourse cohesion and avoiding communication breakdowns. It will compare grammar-versus conversationally-oriented classroom activities for learner turns exhibiting the latency gaps and topic repair attempts observed by Vuchinich (1977) following non sequiturs. It will also assess whether discourse latencies stem from reflective, productive processes that align with accuracy objectives or whether they arise from miscommunication.

Participants

The participants included 16 English-speaking university students enrolled in a second-semester, beginning L2 Spanish course at the University of Pittsburgh. Of these, 8 were male and 8 were female, with ages ranging from 18 to 30 years. None of the learners had been exposed to Spanish at home, and although most had studied Spanish in high school for 1 to 3 years, an in-house proficiency test administered by the Spanish department at the beginning of the semester had placed them in this beginning-level course.

Design

Data collection consisted of videotaping two consecutive 50-minute class meetings, where specially designed materials were used to contrast conversation-oriented activities one day with grammar-oriented activities the next. Because the class met 5 days a week, the two recordings were made one day apart, with 12 of the 16 total students present for both classes. The two meetings involved whole-class, teacher-fronted interaction only. The first day’s activities were characterized by teacher turns sequenced according to conversational norms of topic cohesion (hereafter, “Conversation Day”). The second day’s activities used a list of targeted grammar paradigms and vocabulary to establish cohesion between teacher turns (hereafter, “Grammar Day”). Conversation Day preceded Grammar Day in the sequencing of the two lessons due to the widely held belief that conversational interaction benefits from, and therefore ought to follow, form-focused practice (e.g., DeKeyser, 1998; Paulston, 1972). With the lessons set up in reverse order, any performance advantages observed on Conversation Day could not be attributed to practice occurring on Grammar Day. Nonetheless, to reduce the effect of initial exposure to the object of instruction on Conversation Day, learners were asked to study the targeted forms and complete four written
exercises the day before, so that this anticipatory work might serve as an advance organizer for the activities in the next class.

The object of instruction for both Conversation Day and Grammar Day was the same: Spanish present perfect morphology and vocabulary pertaining to recreational activities and personality descriptions. As in English, the Spanish present perfect is formed by conjugating an auxiliary verb, haber, and combining it with the past (or perfective) participle of the main verb, as shown in Example 1.

Example 1

comer → he comido, hemos comido, has comido, and so forth
(to eat → I have eaten, we have eaten, you have eaten, and so forth)

Activities on both days used similar instructional materials whenever possible in an effort to limit differences not related to cohesive devices in discourse. Explicit explanations of target structures were not provided on either day, but outside homework assignments included such information, as was the norm for this class. A brief description of the activities implemented on each day can be found in the Appendix.

The strategy for addressing the object of instruction on Conversation Day was for the instructor to provide ample models of targeted forms in his speech while implementing activities where the forms might be useful for engaging in the interaction. At all times, however, conversational topic cohesion took priority over targeted forms in determining the sequence of teacher turns; target forms were never explicitly elicited from learners; and, unlike proposals for implicit instruction, errors went uncorrected unless a student’s utterance was incomprehensible. By contrast, on Grammar Day activities were specifically designed to elicit all forms of the present perfect while also ensuring that learners produced the targeted vocabulary items. Teacher questions were sequenced almost exclusively to accomplish these objectives, with little or no concern for cohesion beyond the grammar topic. Still, Activities 1, 4, and 5 were ones that would be classified as communicative in some taxonomies (e.g., DeKeyser, 1998; Paulston, 1972), because they involved requesting personal information not already known to the instructor. Activities 2 and 3 offered mechanical practice to see whether L2 forms would work effectively as cohesive devices under such conditions. In all five activities, the instructor corrected errors whenever possible, focusing primarily on the target forms.

The instructor on both days was the learners’ regular instructor for the course, a 31-year-old male graduate student specializing in Spanish applied linguistics, who identified his normal teaching style as communicative. Nonetheless, Activities 1, 4, and 5 of Grammar Day were not unlike ones that had been used throughout the semester (i.e., asking questions about pictures, discussing personal traits, asking about famous people), and despite this instructor’s communicative orientation, the lack of error correction on Conversation Day differed markedly from standard classroom procedure. Thus, each lesson had aspects that were both new and familiar to learners.

The researcher prepared each day’s lesson and reviewed the contrasting activities and objectives with the instructor in detail. However, at no time prior to the videotaping was reference made to possible or anticipated outcomes for interaction. The instructor was told not to request answers in complete sentences on either day and to avoid purposefully extending the time period between his questions and the learners’ responses. Although it has been argued that allowing greater wait time has pedagogical advantages (Long et al., 1984; Rowe, 1986; White & Lightbown, 1984), the instructor was told to call on the first available learner immediately so that latency gaps would better reflect learner-internal factors rather than those imposed by the instructor.

Once the two days’ lessons had been videotaped, they were transcribed and coded to identify latency gaps and topic repair attempts. Because it was understood that extended latencies between teacher questions and learner responses might not necessarily result from comprehension problems, learners were asked to volunteer to review the videotape and transcript with the researcher outside of class and to give written explanations for any latencies lasting more than 1 second. Of the 16 learners, 5 volunteered to participate in these individual meetings, which took place approximately 6 weeks after the lessons were recorded.

Data Coding and Analysis

Upon transcribing the 2 days’ lessons, latency gaps and topic repair attempts were identified, coded, and counted in general accordance with Vuchinich’s (1977) study of non sequitur phenomena. In addition to the researcher, two graduate assistants at the University of Akron
completed the timing and coding procedures in order to provide interrater reliability measures. Other inferential statistical tests were not run on the data, however, because the main focus of the study was the instructor’s development of discourse with the class as a whole, rather than with the average learner.³

**Topic Repair Attempts.** Although Vuchinich observed a number of repair moves resulting from breakdowns in topic cohesion, for the purposes of this study, only the most overt repair attempts, which Vuchinich called “remedy sequences,” were considered. He defined these sequences as discourse turns initiated by hearers that function “to repair misunderstandings and offenses which occur during conversation,” often taking the form of questions such as “huh?” “what?” or “What do you mean?” (p. 236). Example 2 shows a remedy sequence that occurred on Conversation Day, during Activity 2’s personal descriptions, whereas Example 3 shows one occurring on Grammar Day during the substitution drill. In both transcripts, remedy sequences are underlined, nonverbal gestures are in square brackets, and English translations are in parentheses. All learner names have been changed to aliases.

**Example 2**
**Conversation Day, Personal Descriptions**

Teacher: OK, Sue. ¿Cuál es el plato más exótico que has comido?

(OK, Sue. What’s the most exotic dish you have eaten?)

Sue: ¿Plato más?

(The dish that’s most?)

T: Exótico.

(Exotic)

S: [whispers] Exótico.

(Exotic)

T: Exótico. ¿Uds. comprenden la palabra?

[writes word on board] Exótico.

(Exotic. Do you understand the word? Exotic.)

S: Si, ah, ¿"plato" es . . . ?

(Yes, ah, “dish” is . . . ?)

T: Comida.

(Food.)

S: Comida. Oh, OK.

(Food. Oh, OK.)

**Example 3**
**Grammar Day, Substitution Drill**

Jim: Nosotros hemos, uh, estudias-, estudias, estudiado, uh, para el examen.

(We have, uh, studie-, studi-, studied, uh, for the test.)

T: Muy bien. OK. Ah . . . Lori. Tú y yo.

(Very good. OK. Ah . . . Lori. You and I.)

Lori: ¿Tú y yo?

(You and I?)

T: Sí, tú y yo.

(Yes, you and I.)

L: Um, what, qué?

(Um, what, what?)

T: La misma cosa. El examen.

(The same thing. The exam.)

L: OK. Um . . . tú y yo hemos estudiado, estudiado.

(OK. Um . . . you and I have stud- , studied.)

T: [nods head]

Although much L2 acquisition research has argued that remedy sequences such as these, often called clarification requests in the literature, can be beneficial for learners if they lead to negotiation between interlocutors (e.g., Long, 1981, 1996; Pica, 1994), in this study all such discourse moves were coded as equal indicators of a learner’s lack of comprehension, with no distinction made between those that led to successful negotiation and those that did not. The issue of the quality of the negotiation that followed remedy sequences in each lesson will be addressed in the Discussion section of this article.

When coding the data, the researcher and one other rater identified remedy sequences independently among the 430 learner utterances and then compared their results. Consensus was reached in resolving most coding differences, and a kappa measure of agreement showed a high degree of overlap between the two final ratings \( (κ = 0.88) \). Where discrepancies persisted, however, the remedy sequences reported here reflect the coding preferences of the researcher.

**Latency Gaps.** Vuchinich defined latency gaps as “the number of seconds of silence following a turn before [a] hearer’s response” (p. 237). This definition was applied to the data so that all gaps between the first time the instructor asked a question and the beginning of the responding learner’s turn were timed and rounded to the nearest half second. Teacher paraphrases and repetitions of the initial question or cue were counted as part of the latency, as were filler words and sounds from learners, such as uh and um, preceding their turns. As with remedy sequences, the researcher and one other rater measured the 350 latency gaps in the transcript independently and then compared results, with an interclass cor-
relation coefficient showing a high degree of coincidence (single measure ICC = 0.98). Where discrepancies existed, the time reported is an average of the two raters’ measures.

Example 4 shows latencies that occurred during Grammar Day’s transformation drill, where the instructor provided sentences in the simple past tense and required learners to change them to the present perfect. The beginning and end of the latency timing is indicated by the symbol #. The time measured appears between instructor and learner turns. Underlined turns, again, indicate remedy sequences.

Example 4
Grammar Day, Activity 3 (transformation drill)

T: Ricardo salió a muchas fiestas durante su visita a México. #Ricardo salió a muchas fiestas durante su visita a México . . . ¿Sue?
(Ricardo went to many parties during his visit to Mexico. #Ricardo went to many parties during his visit to Mexico . . . Sue?)

14.50 sec.
S: Um . . . #¿Cuál, ah, cuál es el sujeto?
(Um . . . What, ah, what is the subject?)
T: Ricardo.#
0.75 sec.
S: #Ricardo.
T: Sí, el muchacho, Ricardo.
(Yes, the man, Ricardo.)

Learner Recalls of Latency Gaps. The five learners who volunteered to give self-reports on their latency gaps met individually with the researcher and watched the videotape of their class while reviewing the transcript. They were asked to recall and write down, to the best of their ability, anything and everything they were thinking during latencies lasting for more than 1 second (hereafter referred to as extended latencies). In addition, learners were invited to make general written comments or impressions about each day’s lesson after viewing the tape. Because this portion of the data collection took place 6 weeks after the videotaping, it was admittedly a somewhat reconstructive exercise. Nonetheless, upon viewing their interactions and the discourse transcript, most learners seemed able to provide fairly detailed accounts of what they were thinking. For example, one student, Roy, provided this explanation for a 15.25-second gap occurring during Activity 3 on Conversation Day: “While James was speaking I thought of a sentence to say. [The] big commentary by the teacher confused me, I didn’t understand, I was nervous. So I just made a reply based on other students’ past replies.”

Upon reviewing the volunteers’ explanations, three general latency gap categories emerged from the data, depending on whether they primarily resulted from: (a) difficulty understanding the instructor, (b) considering answer options, or (c) assembling L2 form. Of these three, the first was deemed the one most linked to noncohesive teacher turns, whereas the other two were considered natural and often desirable by-products of turn taking in classroom interaction. Roy’s latency, for example, was coded as “difficulty understanding the teacher.”

As with remedy sequences, the researcher and one other rater classified the 67 explanations provided by the volunteers and then compared results, reaching consensus on most coding disparities. A kappa measure of agreement showed a high degree of overlap between the two final ratings ($\kappa = 0.80$). Where discrepancies existed, the classification reported reflects the coding preferences of the researcher.

Results

Tables 1 and 2 show the duration, number of learner turns, number of remedy sequences, and average latency gap for each activity, as well as for the lesson as a whole, on both Conversation Day and Grammar Day respectively. In addition, Figure 1 plots the latency gap for each learner’s turn during both days’ lessons, with different shadings in the graph sections distinguishing each activity.

Remedy Sequences and Topic Repair. By comparing Table 1 to Table 2, it is evident that remedy sequences occurred more frequently on Grammar Day than on Conversation Day, constituting 16% of learner turns for the Grammar Day lesson as a whole. Single-activity percentages on that day ranged from a high of 23% during Activity 4’s disparate “have you ever” questions, to a low of 4% for Activity 1’s personal questions about pictures. The percentages in the other activities clearly indicate that the low figure for Activity 1 was an anomaly, given that each activity had remedy sequences in more than 12% of learner utterances. By contrast, on Conversation Day remedy sequences made up only 4% of learner turns for the whole lesson, with none at all occurring during the discussion-based discourse in Activities 1 and 3, and no activity rising above 8%.

Latency Gaps. The total time taken by latency gaps on Grammar Day was 799 seconds (13 minutes, 19 seconds), or 36% of the total lesson time,
TABLE 1
Duration, Total Learner Turns, Number of Remedy Sequences, and Latency Gap Means for Each Activity on Conversation Day

<table>
<thead>
<tr>
<th>Activity</th>
<th>Minutes</th>
<th>Turns</th>
<th>Remedy Sequences ( % of Total )</th>
<th>Latency M (SD) in Seconds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Personal Conversation Questions re: Pictures</td>
<td>5:26</td>
<td>33</td>
<td>0 (0%)</td>
<td>2.8 (3.0)</td>
</tr>
<tr>
<td>2. Personal Descriptions Linked to Personal Activities</td>
<td>9:40</td>
<td>52</td>
<td>4 (8%)</td>
<td>2.7 (3.8)</td>
</tr>
<tr>
<td>3. Discussion re: Bothersome Actions of Others</td>
<td>7:51</td>
<td>25</td>
<td>0 (0%)</td>
<td>3.3 (6.0)</td>
</tr>
<tr>
<td>4. Deciding on the Best Actor</td>
<td>12:45</td>
<td>79</td>
<td>3 (4%)</td>
<td>2.3 (3.1)</td>
</tr>
<tr>
<td>All Activities</td>
<td>32:42</td>
<td>189</td>
<td>7 (4%)</td>
<td>2.7 (3.9)</td>
</tr>
</tbody>
</table>

whereas on Conversation Day, it was 452 seconds (7 minutes, 32 seconds), or 23% of the total lesson time. Tables 1 and 2 show that Grammar Day also saw longer average latencies than Conversation Day, with the means on Grammar Day ranging from 3.0 to 7.0 seconds per activity, for a whole-lesson mean of 4.4 seconds, and those on Conversation Day ranging from 2.3 to 3.3 seconds, for a whole-lesson mean of 2.7 seconds.

Still, for a number of Grammar Day activities (Activities 1 and 2), latency means were similar to those of Conversation Day, which would seem to contradict the overall trend and require a more fine-grained analysis. Figure 1, which plots all latency gaps sequentially for each activity, shows that similar latency means for each day did not necessarily entail similar discourse patterns. For example, the near 3-second means obtained on both days' Activity 1 resulted on Conversation Day from gaps that were significantly longer and shorter than the mean, but on Grammar Day from larger numbers of gaps in the 1–5 second range.4 Similar patterns emerged during each day's Activity 2: On Conversation Day single gaps much longer than the 2.7-second mean were followed by several that were shorter, whereas on Grammar Day, the 3.0-second mean reflected larger numbers of 1- to 5-second gaps. Indeed, the activity with the longest latency mean on Conversation Day—Activity 3's open-ended discussion of bothersome actions of others—reached a 3.5-second mean only because a large number of latencies lasting 1 second or less were mixed with a handful lasting 5 seconds or more. By contrast, latencies crossing the 5-second mark occurred with greater frequency on Grammar Day for almost all activities.5

TABLE 2
Duration, Total Learner Turns, Number of Remedy Sequences, and Latency Gap Means for Each Activity on Grammar Day

<table>
<thead>
<tr>
<th>Activity</th>
<th>Minutes</th>
<th>Turns</th>
<th>Remedy Sequences ( % of Total )</th>
<th>Latency M (SD) in Seconds</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Display Questions re: Picture File</td>
<td>6:39</td>
<td>49</td>
<td>2 (4%)</td>
<td>3.0 (4.1)</td>
</tr>
<tr>
<td>2. Substitution Drill</td>
<td>6:13</td>
<td>38</td>
<td>8 (21%)</td>
<td>3.0 (2.5)</td>
</tr>
<tr>
<td>3. Transformation Drill</td>
<td>8:49</td>
<td>40</td>
<td>8 (20%)</td>
<td>6.1 (6.3)</td>
</tr>
<tr>
<td>4. Noncohesive Personal Questions</td>
<td>9:43</td>
<td>57</td>
<td>13 (23%)</td>
<td>4.2 (4.9)</td>
</tr>
<tr>
<td>5. Noncohesive, Ambiguous Questions re: Famous Actors</td>
<td>5:32</td>
<td>25</td>
<td>3 (12%)</td>
<td>7.0 (9.0)</td>
</tr>
<tr>
<td>All Activities</td>
<td>36:56</td>
<td>209</td>
<td>34 (16%)</td>
<td>4.4 (5.5)</td>
</tr>
</tbody>
</table>

Student Self-Reports. Tables 3 and 4 summarize, for Conversation Day and Grammar Day respectively, the explanations given by the 5 student volunteers for their own extended latencies. On Grammar Day (Table 4), all learners except Sarah reported having some difficulty understanding the instructor, and 2 of them, Roy and Rob, reported that comprehension difficulties ac-
FIGURE 1
Length in Seconds of the Latency Gap Preceding Each Learner’s Turn

![Graph showing latency gap lengths on Conversation Day and Grammar Day.](image)

counted for more than 80% of their latencies. Indeed, 50% of extended latencies on Grammar Day were attributed to comprehension difficulties, with proportionally fewer resulting from considering answer options (22%) and assembling L2 forms (28%). On Conversation Day, however (Table 3), the total number of extended latencies was less than half that of Grammar Day (21 vs. 46), with the proportion of latencies attributed to teacher incomprehensibility considerably lower as well (24% vs. 50%). Thus, for nearly all five learners, Conversation Day resulted in a greater proportion of desirable latencies spent considering answer options and assembling L2 forms.

Although the overall numbers and classification of these learners’ self-reports reveal noteworthy discourse patterns, many of the comments they made are also important in shedding light on strategies used for engaging in classroom discourse. For example, Roy and Rob, who independently self-identified as learners having difficulty with Spanish, both reported that they often depended on contextual cues from an activity’s broader interaction pattern to figure out what the instructor wanted when a particular question was asked. For instance, as stated previously, it was Roy who reported that he often based his answers on other learners’ previous lines of discourse. Similarly, Rob offered this explanation for one of his latency gaps during Grammar Day’s substitu-

### TABLE 3
Classification of Learner Explanations for Latency Gaps Lasting Longer than 1 Second on Conversation Day

<table>
<thead>
<tr>
<th>Name</th>
<th>Gaps</th>
<th>Difficulty Considering</th>
<th>Assembling</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Understanding Instructor</td>
<td>Answer Options</td>
</tr>
<tr>
<td>Rob</td>
<td>6</td>
<td>1 (17%)</td>
<td>4 (66%)</td>
</tr>
<tr>
<td>Joan</td>
<td>3</td>
<td>0 (0%)</td>
<td>1 (33%)</td>
</tr>
<tr>
<td>Bill</td>
<td>3</td>
<td>1 (33%)</td>
<td>1 (33%)</td>
</tr>
<tr>
<td>Roy</td>
<td>7</td>
<td>3 (43%)</td>
<td>1 (14%)</td>
</tr>
<tr>
<td>Sarah</td>
<td>2</td>
<td>0 (0%)</td>
<td>1 (50%)</td>
</tr>
<tr>
<td>Total</td>
<td>21</td>
<td>5 (24%)</td>
<td>8 (38%)</td>
</tr>
</tbody>
</table>

Note. Numbers in parentheses are percentages of total gaps for that learner. All names are aliases.
TABLE 4
Classification of Learner Explanations for Latency Gaps Lasting Longer than 1 Second on Grammar Day

<table>
<thead>
<tr>
<th>Name</th>
<th>Gaps</th>
<th>Difficulty Understanding Instructor</th>
<th>Considering Answer Options</th>
<th>Assembling L2 Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rob</td>
<td>6</td>
<td>5 (83%)</td>
<td>1 (17%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Joan</td>
<td>7</td>
<td>3 (43%)</td>
<td>4 (57%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Bill</td>
<td>6</td>
<td>1 (17%)</td>
<td>1 (17%)</td>
<td>4 (66%)</td>
</tr>
<tr>
<td>Roy</td>
<td>17</td>
<td>14 (82%)</td>
<td>1 (6%)</td>
<td>2 (12%)</td>
</tr>
<tr>
<td>Sarah</td>
<td>10</td>
<td>0 (0%)</td>
<td>3 (30%)</td>
<td>7 (70%)</td>
</tr>
<tr>
<td>Total</td>
<td>46</td>
<td>23 (50%)</td>
<td>10 (22%)</td>
<td>13 (28%)</td>
</tr>
</tbody>
</table>

Note. Numbers in parentheses are percentages of total gaps for that learner. All names are aliases.

In addition to looking for discourse patterns within an activity, Roy also indicated that listening for keywords whose meanings he was sure of often helped him formulate an appropriate answer to the instructor’s questions. Regarding a 5.25-second latency occurring during Conversation Day’s Activity 1, Roy offered this self-report, which follows the transcript segment in Example 5:

Example 5

T: OK, bueno. Entonces, has corrido y has pintado. Bien.

R: #Yo no miraba, yo no mira la televisión, and yo no el café.

Self-Report: “I was wondering what he meant until I heard the key word diferentes.”

For students such as Bill and Joan, however, who indicated that they were doing relatively well in the class, their perceptions of the discourse patterns affected their participation differently. Both reported that although comprehension was less of a challenge for them on the whole, the noncohesive teacher turns accompanying grammar-driven practice could still lead either to confusion or disengagement. For instance, in Example 6 Joan offered the following explanation for extended latencies that occurred during Grammar Day’s Activity 1, where pictures were used to elicit a particular verb, and then teacher questions attempted to practice the various conjugations of the auxiliary verb haber. In the lines immediately preceding this example, the instructor asked Joan if she had watched television this week, to which Joan responded si, ‘yes’:

Example 6

T: ¿Y tus padres?#

J: Ah, #no, no, han mirado.

Self-Report: ‘I had to guess. At first, I thought I would say ‘no,’ but then I realized that it wasn’t a very realistic answer, since everybody usually watches television, so I decided to say ‘yes,’ even though I knew he didn’t really care what the answer was, just as long as the verb was right.’

Thus, Joan’s latency, which was coded as “considering answer options” rather than “difficulty understanding the teacher,” nonetheless stemmed from difficulty in choosing an appropriate answer when questions intended for structural practice
carried a meaningful component that needed to be addressed as well.

Meanwhile, in making general comments about Grammar Day's substitution drill, Bill reported that although he could understand the content and purpose of that activity, its lack of communicative intent was a disincentive to continue participating. "As people began to answer I had an example to go by and could participate a lot easier . . . I was thinking about why people didn't pick up on it as fast [as I did] because it was repetitious. As the questions continued, I felt less and less inclined to answer, because I was becoming bored with the exercise."

Similarly, Sarah, who was the only one to report no comprehension-related latencies on Grammar Day, nonetheless commented that a lack of communicative value in the mechanical questions seemed to confuse other learners in the class: "[The teacher] keeps asking for the verb tenses but the students don't even really seem to be catching on [be]cause he is moving too quickly and not allowing conversation to develop."

The high number of remedy sequences during the substitution and transformation drills, as shown in Table 2, attests to the confusion that Sarah described. Many of these learner turns involved either requests for clarification on the stimulus sentence, as in Example 4, where Sue asked, "What is the subject?" or requests for help with the activity's instructions, as in Example 3, where Lori asked, "Um, what?" in response to a new subject stimulus, as in what am I supposed to do? These data thus suggest that for many learners, it was not so much the requirement to re-hearse verb forms that made Grammar Day's activities difficult, but rather the use of meaning-bearing sentences for purely structural purposes, and the resulting expectation that their propositional content could be ignored.

Summary. In summary, this comparison of activities using conversational topics versus targeted L2 forms as cohesive devices found that the former yielded less frequent remedy sequences and shorter latency gaps in learner discourse than the latter. Not all latency gaps were uniformly shorter during conversational activities, however, given that very long gaps were often followed by a series of shorter ones, whereas grammar activities saw extended latencies occurring with greater regularity. Finally, student volunteers' reports on their extended latencies suggest that more of the latencies resulted from comprehension problems on Grammar Day than on Conversation Day, and that much of the difficulty resulted from the use of the propositional content of sentences as input for grammar-oriented practice.

Analysis and Discussion

Topic Shifting and Topic Cohesion. Returning to the research questions of this study, a superficial treatment of the data could easily lead to the conclusion that grammar instruction is inherently flawed as a means of building and maintaining discourse cohesion. If, as in Vuchinich's (1977) study, discourse non sequiturs reliably yield remedy sequences and latency gaps, then the greater amounts on Grammar Day than on Conversation Day of both phenomena suggest that the learners had more comprehension problems when cohesion was built around L2 targeted forms than around ordinary conversational topics. Learner self-reports on extended latencies further support this view, given that more latencies resulted from difficulties understanding the instructor than from productive time spent either considering answer options or assembling utterances. Self-identified weaker learners were especially susceptible to comprehension problems of this sort, a result suggesting that cohesion must play a greater role in facilitating comprehension when proficiency levels are lower.

Even if one argues from the perspective of implicit instruction that communication breakdowns are essential to L2 development because they lead to negotiation and conversational adjustments, it is not at all clear that the breakdowns and negotiation on Grammar Day benefited learners as implicit proponents would suggest. Rather than leading to a negotiation of L2 form-meaning connections, remedy sequences on Grammar Day often involved negotiation over the instructions and procedures for an activity, as the sequences in Examples 3 and 4 demonstrate. By contrast, remedy sequences on Conversation Day more often involved a negotiation of form-meaning relationships, given that learners often asked either for clarification of items in the instructor’s previous utterance or for assistance with an answer they were trying to formulate. This was shown in Example 2, where Sue inquired about the meaning of the word plato 'plate.' Although productive, learner-initiated remedy sequences are also claimed to accompany implicit grammar instruction, what happened on Conversation Day differed from such proposals in that the instructor at no time initiated corrective feedback, as many would advocate (e.g., Gass, 1997; Long, 1996; Pica, 1994).

Still, to dismiss grammar instruction com-
pletely and unreservedly advocate conversation-oriented practice would not do justice to these data. Not all Grammar Day activities were equally problematic in maintaining cohesion, and, where latencies are concerned, there were often notably long gaps during some of Conversation Day’s activities as well. In Figure 1, the longest latency during Conversation Day (28.25 seconds) occurred at the beginning of Activity 3, where learners had to tell about something bothersome that had happened to them. This activity was arguably the most natural of all activities that day, and although the lack of remedy sequences suggests that comprehension was generally not a problem, the transcript shows that the learner who broke the 28-second latency asked for vocabulary help before talking about his roommate. Even though this learner was not among those who reported on extended latencies, his question indicates that significant time was needed to respond to a new topic and then encode his answer in the limited L2 forms available to him. After this learner’s initial turn, there was a series of follow-up questions and comments from the instructor and other learners, where latencies lasted for less than 1 second (see Figure 1). The instructor then turned to a new learner for a contribution, and the next extended latency occurred, lasting 9.25 seconds. This cycle repeated itself throughout the activity, with each extended latency representing the beginning of a new learner’s turn. The second-longest latency on Conversation Day occurred under similar conditions. During Activity 4’s discussion of who the best actor is, a learner nominated Tim Robbins, and after a series of 3- to 5-second gaps following teacher questions about what movies the actor had been in, a 20.75-second gap occurred when the instructor then changed the question to what kind of a person Robbins is. After adjusting to this topic shift, latency gaps then fell off as a number of students offered personality adjectives to describe the actor.

It would seem, then, that these Conversation Day patterns coincide with the predictions of Sperber and Wilson’s (1982, 1995) Relevance Theory, where topic shifts come at a processing cost, and greater shifts result in higher and more measurable costs. The volunteers’ self-reports also support this theoretical model, given that stronger and weaker learners alike commented that they used previous learner utterances and broad discourse patterns to infer the nature of relevant and appropriate contributions (e.g., Bill, Roy, and Rob). Thus, when topic-shifting introduces a discrepancy between the instructor’s utterance and learners’ existing contextual assumptions, time and effort is required for learners to adjust their understanding of the interaction and reconsider response options. Although the classroom is indeed a discourse setting distinct in many ways from informal conversation, the data here suggest nonetheless that classroom learners are as sensitive to cohesion among discourse turns as were the participants in Vuchinich’s study of ordinary conversation.

But what about the latency gaps on Grammar Day, where it was assumed that L2 grammar paradigms (the present perfect) and semantically-related lexical items (personality adjectives) could be used as the basis for cohesion? Figure 1 shows that the longest latency occurred during Activity 5, where the instructor was showing pictures of famous actors and asking for personality descriptions, as well as details about what each actor had done in his or her career. The first extended latency (24.50 seconds) occurred when the instructor shifted from describing the first actor to asking about her career. After one learner finally replied, a 17.00-second latency followed while waiting for a second respondent, and then a 29.75-second latency ensued when the instructor ended discussion of the first actor and introduced a second. Clearly, the consequences of major topic shifting are in evidence here, despite the fact that any answer a learner might think up would readily utilize the target forms that ostensibly unified this activity’s interaction.

Another interesting feature of the Grammar Day data is that latencies during Activity 3’s transformation drill were considerably longer than those during the preceding substitution drill, two activities often considered similar forms of mechanical practice. Both activities yielded identical numbers of remedy sequences, and, as alluded to previously, most of these sequences involved negotiation over activity procedures. Nonetheless, it appears that the constantly changing propositional content of the teacher turns during the transformation practice further complicated discourse processing during this activity. Table 2 shows that transformation drill latencies on average were more than twice as long as those in the substitution drill, and indeed, the transcript reveals that gaps of 10 seconds or more consistently occurred at the introduction of new stimulus sentences, with the shorter gaps shown in Figure 1 coming when activity procedures or correct answers were occasionally negotiated with a respondent. By contrast, during the substitution drill, where a single stimulus sentence was held constant while learners conjugated the verb to match variable subject pronouns, there was no latency...
gap longer than 8 seconds, despite the procedural confusion evidenced by remedy sequences. It appears, then, that although both mechanical activities posed procedural difficulties for learners, cohesion was weaker during transformation practice because the propositional content of the stimulus sentence changed significantly at every teacher turn.

Taken together, these data suggest that it is not grammar instruction itself that leads to poor cohesion, but that, more precisely, it is using forms within utterances for cohesion while ignoring their topical content that causes the problem. This interpretation of the data is perhaps best supported by the contrast between Grammar Day’s Activity 4 and Conversation Day’s Activity 2. In both cases, the instructor asked learners a series of topically unrelated “have you ever” questions taken from their ostensibly communicative text in order to focus on the present prefect. On Grammar Day, the disconnected questions were simply read out of the book on the assumption that the object of instruction would provide cohesion, but on Conversation Day, each question was followed by conversational topic-expansion moves, asking learners for details about their answers. In Figure 1, the familiar pattern of extended latencies followed by shorter gaps appears for both activities, with the longer gaps indicating transitions to new “have you ever” questions in both cases. However, Tables 1 and 2 clearly show that without the topical cohesion built during Conversation Day, the object-of-instruction cohesion during Grammar Day resulted in longer average latencies (4.2 seconds vs. 2.7) and more frequent remedy sequences (23% vs. 8% of learner turns). Topic-expansion moves thus appear to have facilitated comprehension in this particular activity.

It would seem then that the problem with much of grammar instruction is not so much setting accuracy as an objective, but rather failing to treat accuracy adequately as a discourse topic with contextual assumptions (i.e., Sperber & Wilson, 1995) that diverge from those signaled in the utterances being used. Thus, the three communicative activities on Grammar Day (Activities 1, 4, and 5) were problematic because accuracy objectives had to be inferred from questions about pictures, personalities, and famous people, each one requiring that learners process a gap between literal meaning and intended purpose in order to understand the interaction. Once those gaps were processed, further complications resulted when the content of questions still had to be addressed, as when Joan had to decide in Example 6 whether everyone in the class had watched television or not. Even in the two mechanical exercises (Activities 2 and 3), where one might think that the irrelevance of an utterance’s meaning would be most obvious, the propositional content of stimulus sentences appeared to slow the interaction despite Bill’s and Sarah’s reporting that they understood what the instructor wanted. As in the other Grammar Day activities, mechanical manipulation required that gaps between the literal and intended meaning of instructor utterances be processed. By contrast, there were no such gaps in Conversation Day activities, where the propositional content of instructor utterances, together with that of student replies, served as the basis for formulating subsequent turns, with fewer comprehension difficulties as a result.

Throughout Grammar Day, target L2 structures were held constant while topical content often shifted abruptly between teacher turns. Although it was not impossible for learners to infer teacher intentions under these conditions, their participation was nonetheless characterized by increased comprehension difficulties. Because better comprehension appears to follow from more effective cohesion, and comprehensible input is an essential ingredient in L2 acquisition, the implications of these findings for grammar instruction are critical.

Implications for Instruction and Further Research. Grammar instruction would be more successful if cohesion were not narrowly based on the mere use or elicitation of particular forms. Target structure accuracy should be overtly expressed as the discourse purpose, and the interaction itself ought to engage learners in activities that logically follow from this goal. In this study, neither lesson did this. On Grammar Day, learners had to work to infer accuracy objectives from questions overtly indicating other meanings, and on Conversation Day, teacher utterances aligned with broader discourse patterns signaling conversational rather than grammatical topics as their unifying feature. Although it is beyond the scope of this article to analyze the use of target forms in the 2 days’ lessons, a cursory review of the transcript reveals few examples of learners using target verb forms on Conversation Day, despite ample instructor models and the potential usefulness of these forms in answering his questions.

Perhaps Conversation Day activities would have modeled ideal grammar instruction if intentions to work on target forms had been clearly announced at the beginning of each ac-
tivity, followed by a brief discussion of how these forms might be employed within each activity’s conversational focus. Error correction might also have been employed, but it would have had to follow consistently and transparently from the topic of accuracy with these particular forms. Such focused feedback was indeed implemented in Doughty and Varela’s (1998), Long et al.’s (1998), and Mackey’s (1999) studies (although without metalinguistic discussion), with more successful results than the unfocused, ad hoc approach advocated elsewhere by Long (1991, 1996) and observed in Mackey et al.’s (2000), Lyster’s (1998), and Lyster and Ranta’s (1997) studies. Also consistent with these proposals would be the instructional conversations about accuracy with target forms advocated by Hall (1999), the co-construction with learners of grammar rules advocated by Adair-Hauck and Donato (2002), and the composition tasks described by Swain (1998) that allow learners time for metalinguistic reflection about form while producing language meaningfully. In all three of these sources, overt discussions of accurate use of target forms appear as cohesive and conversational ways to engage learners in thinking about grammar as a meaningful communication tool.

Although it is clear that concrete proposals for teaching grammar cohesively are present in the literature, in most cases their learning outcomes have yet to be compared with other forms of grammar instruction, using discourse cohesive features as the principal points of contrast. In addition, this study is limited in that it provides data on only two differently organized 50-minute classes. Learning outcomes for the object of instruction were not assessed, and questions remain open about how these results might differ from those of other learner groups in other language programs. Still, the fact that these results corroborate Relevance Theory as an explanation for success or failure in communication suggests the need for further research along these lines so that the discourse features that most help learners improve their L2 accuracy can be more precisely specified.

CONCLUSION

This study has shown that cohesion in L2 grammar instruction may be undermined when it is based only on structures in utterances rather than on broader, transparent discourse goals. It appears that greater comprehension difficulties occurred on Grammar Day because significant gaps often existed between the literal and intended meaning of utterances, and learners had to respond to propositional content that did not directly reflect the primary discourse objectives. If indeed limited attentional resources constrain L2 acquisition processes, then it would seem that recognizing clearly when accuracy is the discourse purpose would greatly facilitate the noticing of targeted forms that is claimed to be essential for L2 grammatical development (Long, 1996; Robinson, 2001; Schmidt, 1995). Otherwise, as Carroll (2001) observed, accuracy objectives are rendered irrelevant, cohesion is weakened, and attention to form requires a topic shift that often leads to miscommunication.

Poor topic cohesion may indeed affect comprehension in low-L2-proficiency learners more negatively than in high-L2-proficiency learners, because individuals who can process fewer of the morphosyntactic features of their interlocutor’s utterances will be ever more dependent on broader discourse patterns to infer intended meanings and formulate appropriate responses. Furthermore, in instructor-led, whole-class interaction, where learners are less free to shape the discourse direction than in ordinary conversation, responsibility for establishing and maintaining cohesion is borne principally by the instructor. Given these realities, these findings suggest that instructors can facilitate comprehension in grammar instruction by ensuring that the sequence and content of their contributions make the direction and purpose of classroom discourse transparent.

ACKNOWLEDGMENTS

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Activity 1 falls to 2.3 seconds if the first latency of 24.75 seconds is excluded from the calculation. This decline would indicate less variation in latency length than Conversation Day’s Activity 1, where the standard deviation would indicate less variation in latency length than Conversation Day’s Activity 1, where the standard deviation is 3.0 seconds.

On Conversation Day, the total number of latencies lasting 5 seconds or more was 31, or 18% of all latencies; for Grammar Day, it was 59, or 33% of all latencies.

Two of these learners were not present for both days’ lessons and so their self-reports were not used as data for the study. One of the students whose data were used did not give permission to have her name appear in print.

REFERENCES


Long, M. (1996). The role of the linguistic environment...


**APPENDIX**

Summary of the Activities Used in Each Day’s Lesson

<table>
<thead>
<tr>
<th>Activity</th>
<th>Conversation Day</th>
<th>Grammar Day</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><em>Personal Conversation Questions:</em> Teacher (T) displays 10 pictures of common recreational activities to students (Ss), asking them to identify those that they have done that week. T asks responding individuals conversational follow-up questions, then asks learners to compare their activities this week with those of individuals who have already responded.</td>
<td><em>Personal Grammar Questions:</em> T chooses one of 10 pictures representing common recreational activities and asks Ss if they have done the activity that week. Before moving on to new pictures, T asks follow-up questions about whether other people in the Ss’ lives have done that activity in order to practice all conjugations of the auxiliary verb <em>haber</em>.</td>
</tr>
<tr>
<td>2</td>
<td><em>Personal Descriptions:</em> T writes personality adjectives that Ss have studied on the blackboard, asking them to identify which ones apply to them as individuals. T then calls on Ss to explain their choices, using a series of “have you ever?” questions from the textbook as a guide.</td>
<td><em>Substitution Drill:</em> First, T says a sentence in the present perfect, followed by an alternate subject. Ss are called on to change <em>haber</em> to agree with the new subject. Then, T gives Ss a new verb and asks the class to keep the subject constant while supplying the correct past participle of the indicated verb.</td>
</tr>
<tr>
<td>3</td>
<td><em>Discussion about Other People:</em> T asks Ss to think about an activity that someone they live with has done recently which has bothered them, and describe it to the class.</td>
<td><em>Transformation Drill:</em> T says a sentence to the class in the simple past tense and asks Ss to convert the sentence into the present perfect.</td>
</tr>
<tr>
<td>4</td>
<td><em>Deciding on the Best Actor:</em> T asks Ss who they believe is the best actor in the world and to defend their opinion by describing some of the things that this person has done.</td>
<td><em>Decontextualized Personal Descriptions:</em> T asks Ss the same list of disparate “have you ever?” questions from Conversation Day’s Activity 2 without embedding them in the broader task of creating a personal description.</td>
</tr>
<tr>
<td>5</td>
<td>NONE</td>
<td><em>Display Questions About Famous Actors:</em> T elicits personality descriptions and present perfect morphology by showing Ss pictures of famous actors and asking Ss to describe the actors’ personalities and what movies they have made.</td>
</tr>
</tbody>
</table>