



Research on Error Correction and Implications for Classroom Teaching

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After three decades, immersion programs are still considered enormously successful with respect to the second language (L2) proficiency levels attained by students enrolled in such programs and their concurrent development of academic skills in both the native and target languages. Indeed, immersion has evolved in some cases beyond the program types that originated in the Canadian context and is now being applied in a wide range of situations and at multiple levels with differing goals, socioeconomic and cultural contexts, and methods of implementation (Swain & Johnson, 1997). Yet research conducted since the late 1970s has firmly established that immersion students' L2 productive skills are not on a par with those of their native-speaking counterparts. In other words, immersion students do not attain native-like proficiency in speaking and writing.

The reasons for this phenomenon are many and varied, but some are related to instructional issues. Most immersion teachers tend to focus their attention on the instruction of subject matter content; academic achievement usually receives increased emphasis because of school district expectations and parental concerns. Yet "...subject-matter teaching does not on its own provide adequate language teaching" (Lyster and Ranta, 1997, p. 41). It has also been observed that lack of systematic approaches for teaching specific language structures in meaningful contexts and for attending to student errors contribute to less than optimal levels of proficiency in immersion students (e.g., Chaudron, 1986; Harley, 1989; Kowal and Swain, 1997; Lyster, 1987, 1994; Lyster and Ranta, 1997; Salomone, 1992; Swain and Lapkin, 1986).

The focus of this issue's Bridge insert is on one of these instructional issues: immersion teachers' responses to students' language errors. Roy Lyster's research in this area is highlighted in particular because we had the opportunity to learn about his recent work during the 1997 Summer Institute for Immersion Teachers held at the University of Minnesota.

Errors and Correction: What Do Students Learn?

Lyster and Ranta (1997) point out that the research that has focused on the issue of error treatment in second language classrooms in the past 20 years has continued to pose the questions framed by Hendrickson in his 1978 review of feedback on errors in foreign language classrooms. These questions are:

- Should learners' errors be corrected?
- When should learners' errors be corrected?
- Which errors should be corrected?
- How should errors be corrected?
- Who should do the correcting?

Appearing on the surface to be simple and straightforward, these questions have been explored by scholars over the past two decades in a variety of L2 classroom settings and have been found to be quite complicated. Recent work by Lyster and Ranta (1997) in Canada, however, may help to provide some practical advice for immersion teachers. Lyster and Ranta's work is of particular interest because it combines different types of error treatment, or corrective feedback, with student responses to that feedback, or "learner uptake" (1997, p. 40). They were especially interested in finding what types of error treatments encourage learners' self-repair. In other words, what types of corrective feedback lead students to correct their own errors with an eye toward grammatical accuracy and lexical precision within a meaningful communicative context?

Lyster and Ranta observed a variety of lessons in four different classrooms representing two types of immersion programs. Data were collected in one fourth-grade class in an early total immersion school (in which students had received instruction in all areas in French since first grade, with approximately one hour per day in English) and in three classrooms

(two fourth grade and one fourth/fifth split) in a middle immersion school. In this latter setting, the students had received all instruction in English except for a daily one-hour French lesson until the fourth grade. Beginning in fourth grade, approximately 60% of the school day is in French. Subject areas in French include science, social studies, math, and French language arts. Approximately 18 hours of lessons in these four subject areas were observed and audiotaped for analysis. The data analysis yielded six different feedback types. A definition and examples of each type follow (Lyster, 1997; Lyster and Ranta, 1997).

Types of Corrective Feedback

1. Explicit correction. Clearly indicating that the student's utterance was incorrect, the teacher provides the correct form.

S: [...] *le coyote, le bison et la gr...groue.* (phonological error) "[...] the coyote, the bison and the cr...crane."
T: *Et la grue. On dit grue.* "And the crane. We say crane."

2. Recast. Without directly indicating that the student's utterance was incorrect, the teacher implicitly reformulates the student's error, or provides the correction.

S: *L'eau érable?* (grammatical error) "Maple sap?"
T: *L'eau d'érable. C'est bien.* "Maple sap. Good."

3. Clarification request. By using phrases like "Excuse me?" or "I don't understand," the teacher indicates that the message has not been understood or that the student's utterance contained some kind of mistake and that a repetition or a reformulation is required.

S: *Est-ce que, est-ce que je peux fait une carte sur le...pour mon petit frère sur le computer?* (multiple errors) "Can, can I made a card on the...for my little brother on the computer?"
T: *Pardon?* "Pardon?"

4. Metalinguistic clues. Without providing the correct form, the teacher poses questions or provides comments or information related to the formation of the student's utterance (for example, "Do we say it like that?", "That's not how you say it in French," and "Is it feminine?").

S: *Euhm, le, le éléphant. Le éléphant gronde.* (multiple errors) "Uhm, the, the elephant. The elephant growls."
T: *Est-ce qu'on dit le éléphant?* "Do we say *the* elephant?"

5. Elicitation. The teacher directly elicits the correct form from the student by asking questions (e.g., "How do we say that in French?"), by pausing to allow the student to complete the teacher's utterance (e.g., "It's a...") or by asking students to reformulate the utterance (e.g., "Say that again."). Elicitation questions differ from questions that are defined as metalinguistic clues in that they require more than a yes/no response.

S: *...Ben y a un jet de parfum qui sent pas très bon...* (lexical error) "...Well, there's a stream of perfume that doesn't smell very nice..."
T: *Alors un jet de parfum on va appeler ça un...?* "So a stream of perfume, we'll call that a...?"

6. Repetition. The teacher repeats the student's error and adjusts intonation to draw student's attention to it.

S: *Le...le girafe?* (gender error) "The...the giraffe?"
T: *Le girafe?* "*The* giraffe?"

Uptake, or Learner Responses to Feedback

Lyster and Ranta's data also revealed different types of student responses to teachers' corrective feedback. Uptake is defined in their work as "a student's utterance that immediately follows the teacher's feedback and that constitutes a reaction in some way to the teacher's intention to draw attention to some aspect of the student's initial utterance" (1997, p. 49). Put another way, uptake shows what the student tries to do with the teacher's feedback.

Two types of student uptake appeared in the data: uptake that produces an utterance still needing repair, and uptake that produces a repair of the error on which the teacher's feedback focused. This latter type—uptake with repair—does not include self-initiated repair but rather those types of repairs that students produced in direct response to the feedback provided by the teacher.

Results: What Did the Classroom Data Reveal?

Lyster and Ranta found that approximately 34% of the student utterances audiotaped during those 18 hours of class time contained some type of error. Teachers responded with some type of corrective feedback to 62% of all the errors produced by students. Of all the feedback utterances produced by the teachers in response to learner errors, 55%, or slightly over half, were found to lead to uptake of some type on the part of the learner. However, only 27% of the feedback utterances led to student repair. When Lyster and Ranta (1997) looked at the total number of errors produced by students and the total number of repairs they produced, they found that just 17% of the total errors made by students were repaired in some way by students.

The study produced interesting results in terms of feedback types. Lyster and Ranta found that the teachers in their study provided corrective feedback using recasts over half of the time (55%). Elicitation feedback was offered in 14% of the cases, clarification requests 11%, metalinguistic feedback 8%, explicit correction 7%, and repetition 5%. Lyster and Ranta point out that the low percentage of repetition feedback is rather deceptive because teachers often produce repetitions along with other types of feedback. More interesting still is Lyster and Ranta's analysis of what types of corrective feedback lead to uptake that contained student-generated repairs. These results are summarized in Table 1.

TABLE 1. NUMBER AND PERCENTAGE OF REPAIRS ATTRIBUTED TO EACH FEEDBACK TYPE

Feedback Type	All Repairs (n = 184)	Student-Generated Repairs (n = 100)
Recast (n = 375)	66 (36%)	0
Elicitation (n = 94)	43 (23%)	43 (43%)
Clarification request (n = 73)	20 (11%)	20 (20%)
Metalinguistic feedback (n = 58)	26 (14%)	26 (26%)
Explicit correction (n = 50)	18 (10%)	0
Repetition (n = 36)	11 (6%)	11 (11%)

As clearly shown in Table 1, recasts and explicit correction did not result in student-generated repair at all, because those two feedback types provide students with the correct forms and thus can only lead to student repair that is a repetition of the correct form provided by the teacher. On the other hand, when the other four types lead to repair, it must be student-generated because these feedback types do not provide the correct form. Lyster and Ranta summarize that student-generated repairs are important in language learning because they indicate active engagement in the learning process on the part of students. This active engagement occurs when there is negotiation of form, or when the students have to think about and respond to the teacher's feedback in some way. And this negotiation of form occurs when the teacher does not provide the correct form but instead provides cues to help the student consider how to reformulate his or her incorrect language.

Implications: What Does This All Mean to the Classroom Teacher?

Lyster and Ranta are careful to conclude that their research on teacher feedback and student uptake does not yield conclusive claims related to language learning and that more research is needed. Nevertheless, it is possible to suggest some ideas for teachers based on their findings. We offer four general suggestions for teachers based on the classroom experiences of Ms. de Gortari and her colleagues.

Continued

1. Consider the context. Before you plan systematic error correction practices for your classrooms, you need to consider the context in which student language use and errors occur. As immersion teachers are well aware, students in the early stages of cognitive development and language acquisition need to be encouraged to produce language that communicates meaning; error correction techniques that require student reflection on language structures or vocabulary are not appropriate for learners in those early stages. The types of corrective feedback techniques that elicit student-generated repairs are clearly more appropriate for the more cognitively mature and L2 proficient learners.

2. Become aware of your current practices. Immersion teachers can benefit by taking time to find out how they currently address student errors. Ask a colleague or classroom aide to observe you while focusing specifically on your feedback techniques. Or, should a colleague or aide not be available, audio record a number of your lessons and reflect on the recording.

3. Practice a variety of feedback techniques. Good teachers understand that one size does not fit all. Individual learners may well differ in terms of the particular error correction technique most appropriate for their unique language development needs. Choosing to learn and use a few different types of feedback that seem to produce student-generated repairs increases your chance of reaching more students.

4. Focus on the learner—it's important to let the learner self-correct. Remember that your students may well be more capable than you think! As teachers we often feel an urge to rush in with the correct response before students have had enough time to process the information. If we allow time and provide appropriate cues for the learner to self-repair, more often than not the student will come through. The least effective technique for correcting a student's incorrect language use is to simply give them the answer.

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