

## INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

**The quality of this reproduction is dependent upon the quality of the copy submitted.** Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

ProQuest Information and Learning  
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA  
800-521-0600

UMI<sup>®</sup>



**ErrorBuster: A Computer Program Designed to Remediate  
Persistent Errors of Francophone Speakers of English**

Linda Westberg-Bracewell

A Thesis

In

The TESL Centre

Presented in Partial Fulfilment of the Requirements  
For the Degree of Master of Arts in Applied Linguistics at  
Concordia University  
Montreal, Quebec, Canada

February 2001

© Linda Westberg-Bracewell, 2001



National Library  
of Canada

Acquisitions and  
Bibliographic Services

395 Wellington Street  
Ottawa ON K1A 0N4  
Canada

Bibliothèque nationale  
du Canada

Acquisitions et  
services bibliographiques

395, rue Wellington  
Ottawa ON K1A 0N4  
Canada

*Your file Votre référence*

*Our file Notre référence*

The author has granted a non-exclusive licence allowing the National Library of Canada to reproduce, loan, distribute or sell copies of this thesis in microform, paper or electronic formats.

The author retains ownership of the copyright in this thesis. Neither the thesis nor substantial extracts from it may be printed or otherwise reproduced without the author's permission.

L'auteur a accordé une licence non exclusive permettant à la Bibliothèque nationale du Canada de reproduire, prêter, distribuer ou vendre des copies de cette thèse sous la forme de microfiche/film, de reproduction sur papier ou sur format électronique.

L'auteur conserve la propriété du droit d'auteur qui protège cette thèse. Ni la thèse ni des extraits substantiels de celle-ci ne doivent être imprimés ou autrement reproduits sans son autorisation.

0-612-59238-3

**Canada**

## ABSTRACT

### **ErrorBuster**: A Computer Program Designed to Remediate Persistent Errors of Francophone Speakers of English

Linda Westberg-Bracewell

This work includes an examination of the efficacy of error correction in language teaching from historical, pedagogical and sociolinguistic perspectives. A particular error-correction technique, *error replay*, is discussed and tested in a longitudinal case study of an adult learner of English as a second language. *Error replay* is a technique in which learner errors from recorded samples of free discourse are presented in written form for learners to review and correct at a later time. Results from the case study show that there was a markedly positive effect of *error replay* on the elimination of persistent errors in the adult learner who participated in this study. This process of elimination of errors, as well as an eliminated error itself, is referred to as *(an) outtake* in this thesis. Examples of *outtakes* in later recordings of the learner are traced from the beginning to the end of the study in order to explore the processes involved in eliminating errors from learner speech. Chronologically related learner reflections during the study are compared to learner progress in order to explore the relationship among error correction, noticing and learner behavior. There is evidence from this study to support the hypothesis that error correction is instrumental in prompting noticing which leads to behavioral changes. This work concludes with a description of a web-based tool based on the *error replay* technique. A working prototype of the tool, dubbed **ErrorBuster**, was developed as part of this thesis.

*This work is dedicated to my students, especially M., G., and R.  
who meet me more than halfway on the bridge between cultures.*

*I would also like to acknowledge the arduous work of  
Andrew Westberg, architect of ErrorBuster.*

## Table of Contents

<b>Chapter 1:</b> Introduction.....	1
Background of Error Correction.....	1
Writer's Interest in Error Correction.....	3
<b>Chapter 2:</b> Literature Review.....	7
Previous Research.....	7
Theories of Second Language Acquisition.....	12
<b>Chapter 3:</b> Theory to Practice.....	17
A Model for PPP-Error Eradication.....	17
A Technique for PPP-Error Eradication.....	20
A Rationale for Error Correction.....	24
<b>Chapter 4:</b> Description of a Case Study.....	32
Procedure.....	32
Defining Outcomes as Outtake.....	33
Description of Participant.....	34
Results of Study.....	34
Outtakes for M.....	35
Results of Post-Test.....	41
<b>Chapter 5:</b> Findings.....	47
Global Assessment.....	47
Learner as Linguist.....	48
Conclusions.....	56
<b>Chapter 6:</b> Description of <del>Error Buster</del> .....	60
Components.....	60
Rationale for the Tool.....	68
Description and Rationale of Help sites.....	69
State of the Artwork.....	74
Recommendations.....	85
<b>References</b> .....	88

## List of Figures

- Figure 1: Graph of fluency as a function of automaticity
- Figure 2: Enhanced graph of fluency as a function of automaticity
- Figure 3: Outtake continuum
- Figure 4: ~~Error~~Buster Architecture
- Figure 5: Screen shot of login screen
- Figure 6: Screen shot of the menu page
- Figure 7: Screen shot of a typical example  
7a: A flawed example  
7b: “Where is the error?”  
7c: “What is the error?”  
7d: “Why do I make it?”  
7e: “How can I fix it?”  
7f: “Other examples?”  
7g: “Answer please?”
- Figure 8: Screen shot of the teacher program
- Figure 9: Screen shots of typical helpsites  
9a: Present Perfect versus Simple Past  
9b: Spelling Demons  
9c: When + Present  
9d: Not to, Never to  
9e: Comparative forms  
9f: Plurals  
9g: False Friends  
9h: Simple Present or Present Perfect  
9i: Verbs + Prepositions + Gerunds  
9j: Verbs + Prepositions



The ideal condition would be, I admit,  
That men should be right by instinct;  
But since we are all likely to go astray,  
The reasonable thing is to learn  
From those who can teach.  
Sophocles 495–406 B.C.

## Chapter 1: Introduction

### *Background of Error Correction*

If this quote from Sophocles' Oedipus Rex was paraphrased in the jargon of second language acquisition researchers, it might read something like this:

*Ideally, second language learners would follow the Krashenian model and acquire a second language in the instinctual manner of first language acquisition, that is, by simple exposure to an environment of comprehensible input; however, it has become evident that there exist deficiencies in that model. Learners are likely to demonstrate a tendency toward producing errors, caused both by the dissonance and the near harmony between their first and second languages, among other factors. Instruction, especially form-focused instruction, is therefore justifiable in order to enhance aspects of the input and to induce learners to notice the gap between their interlanguage and the target language, thus facilitating their movement along the developmental path toward native-like speech.*

Sophocles' words have surely inspired many interpretations from educators through the years, but it is certain that he clearly affirms the role of teaching in the process of learning. The *what, when, where, how* and *with whom* of teaching is negotiable, and all

practitioners hammer out, in one way or another, the details of what might be called a teaching contract with their students. The respective teacher/student responsibility, efficacy of methodology, instructional content, and evaluation criteria are all items on the bargaining table. Other players—researchers, administrators, parents, and government departments—often enter into the fray. Whatever the final terms of the contract, one thing is certain: The bottom line of teaching should be learning; teaching should meet the needs of learners in quantifiable ways.

One need which language learners have identified is the need to be corrected in a meaningful and effective manner. Nunan (1995) discusses the comparison between learning preferences of teachers and learners and identifies several “mismatches” between tasks and activities selected by members of the two groups. The most striking of these mismatches are perceptions about *error correction* and *pair work*, the former was rated very high by the students and low by the teachers, and the latter received opposite ratings. It is the idea of error correction, a time-honored *or dishonored* teaching technique, that is the topic of this thesis.

During the second half of the 20<sup>th</sup> century, stakeholders in the field of second language (L2) teaching—theorists, practitioners and learners—have watched attitudes toward learner errors and error correction change. Stock in error correction was high during the 1950s and early 1960s. According to proponents of the audio-lingual approach, errors were harmful to learners, the seeds of bad habits. Their presence was a risk factor to language development, and teachers were to exercise zero tolerance for error production by learners (Olajedo, 1993). In the late 1960s and early 1970s, there was a shift to the idea that errors were a kind of *window to the soul* of learners, through

which one might observe learners' interlanguage (IL) and hypothesis-testing strategies (Aljaafreh and Lantolf, 1994). Errors were an index of development and had great analytical value.

The practical value of dealing with errors, however, is still seeking its market level. Those buying into the view that language learning does not take place at a conscious level wager that learners can reach high levels of L2 proficiency without formal intervention such as error correction (Schmidt, 1995). Others—"the vast majority...since the early 1990s" (Dekeyser, 1998, p. 42)—hold to the idea that not all language features are acquirable without some investment in formal instruction, albeit in a communicative context. My purpose in writing this thesis is to explore the efficacy of error correction as an instructional intervention. I will proceed as follows:

- Explain my own interest in the area of error correction
- Examine previous research
- Examine theories of language acquisition
- Present a theoretical model for error correction and automaticity
- Describe a practical technique used for error remediation
- Describe a case study in which this technique was used
- Document comments of learners using this technique
- Describe a tool for automating this technique

### ***Writer's Interest in Error Correction***

I'm fairly certain that I speak for the vast majority of my peers in saying that my desire as a teacher is to be described, in Sophocles' terms, as "one who *can* teach." I want to make sure that the interventions that I spend precious classroom time for will bring returns in learner competence. In the same spirit of efficacy, Hulstijn (1995) examines the relative return on teaching certain grammar rules. He concludes that certain

grammar rules “are more equal than others” and deserve a higher priority in syllabus design. The frequency of rule application, the reliability and scope of the rule, and the potential for perspicacity of presentation of the rule are all factors in ranking it in a prescribed hierarchy of presentation. Schachter (1991, p.99) has confidence that “when the dust [of research on corrective feedback] settles” we will know what aspects of the language under which circumstances with which age groups are the optimal targets for error correction. I look forward to the day when the intuition of teachers and syllabus designers is confirmed or refuted by hard evidence. It would certainly remove a lot of the guesswork, the endless *trial-and-error-go-round* that classroom teachers face in their continual efforts to find effective ways of instructing. As a teacher who has been on that *ride* for some time now, I would like to review my own intuitions and observations and perhaps provide a certain amount of evidential credence to them.

My experience teaching ESL has centered in Quebec. My students, in high school, in university and in the business world, have, by and large, been high-intermediate to advanced ESL speakers. Many are French Canadians, but others are of different ethnic backgrounds, studying or working in French. What I have noticed is that my students collectively have a repertoire of errors that I call triple-P (PPP) errors; these errors are *persistent, pervasive* and *petrifiable*.<sup>1</sup>

The *persistence* of certain learner errors in the face of voluminous positive counter-evidence confounds both researchers and teachers. Brown calls it a “common experience to witness in a learner’s language various erroneous features which persist despite what is otherwise a fluent command of the language” (1987, p. 187). These

---

<sup>1</sup> I have observed that the various first languages of my students do not result in different errors, except perhaps in pronunciation. Most transfer errors seem to come from French, their language of work or study.

errors in grammar, pronunciation and usage seem to endure after years of exposure to comprehensible input. They *pervade* both the oral and written genre of communication. I have heard them and seen them written so often that I have to consciously fight off my own tendency to adopt them as acceptable English. Errors from this repertoire are also *petrifiable*; that is, they are the most likely candidates for fossilization (Selinker, 1972), a process whereby errors become permanent features in a learner's speech.<sup>2</sup> They rarely lead to breakdowns in communication—neither with L1 nor L2 speakers of the same ilk—so there is no natural check against their use. Littlewood (1984) notes that “fossilization is most likely to occur when a learner realizes (subconsciously)<sup>3</sup> that the error does not hinder him in satisfying his communicative needs” (p. 34). Burt (1975) calls them “local errors” in that they “affect only a single element of a sentence ... [and] do not prevent a message from being heard” (In Brown, 1985, p. 194). They seem to linger to the end of a learner's journey through developmental stages of IL, seemingly reinforced by every single incident of usage.

In many cases, ESL speakers are blissfully unaware of PPP errors. Lennon (1991) describes an advanced learner of English in an L2 setting who was apparently unaware of “her deviant usage,” regarding it as a free alternative to the correct form. Lennon notes that her usage of certain incorrect forms was not accompanied by hesitation, self-correction, back-tracking or appealing to the interlocutor for confirmation or feedback, strategies that are characteristic of hypothesis-testing. Even when she heard “correct

---

<sup>2</sup> Brown suggests a “better metaphor” for the process known as fossilization. “Cryogenation” is freezing matter at very low temperatures, and can be reversed (1987, p. 187). I'd like to think, as Brown seems to, that errors are not etched in stone, so to speak.

<sup>3</sup> To *realize something subconsciously* sounds a bit oxymoronic. This is perhaps what Jackendoff (1987) refers to as the “disunity of awareness,” when one is “at once aware of something and not aware of it” (In Smith, 1991, p. 122). Schmidt notes another aspect of ambiguity in this area; the terms *unconscious* and

native speaker input and register[ed] it as different from her own usage,” it did not necessarily cue her to change her behavior (p. 148). He thus concludes that the persistence of this unhindered use of aberrant forms does not necessarily indicate fossilization; rather it indicates lack of awareness that the forms are incorrect.

Indeed, many learners enjoy a functional level of bilingualism that suits their communicative needs. One might well ask why a teacher should bother trying to eradicate PPP errors. In my view, the answer to this question lies in the specific teaching context. Perhaps not all instructional situations call for the same degree of accuracy teaching. Doughty and Williams (1988) note that “some learners may require more attention to form than others, given their relative and differing aims for ultimate attainment” (p. 198). Conversational English or English for tourists may allow for great latitude, but in my teaching contexts, I have felt compelled to spend some of my teaching time focusing on PPP errors. Business people in Quebec are very keen to excise anything from their speech that would stigmatize them or tarnish their desired image of professionalism in negotiating with their English-speaking counterparts. They want to know what they are doing wrong and how to fix it...immediately! High school students may not be as keen, but their futures lie before them. Their linguistic needs are not predictable. Rogers (1981) recommends that teachers not stop correcting persistent errors “as this correction may well form part of the potential input ... which can be of long-term benefit” to the student (p. 76). Who knows what career options may be foreclosed on the grounds of linguistic proficiency?<sup>4</sup>

---

*subconscious* learning are used interchangeably with no apparent distinction between the two (1995, p. 2). Perhaps some clarification on these issues will come from domains other than second language acquisition.

<sup>4</sup> The same high school student who speaks about *revising his course* when he means he is going to go back over his course notes and review them for a test may one day be a pilot who is told by air traffic controllers

## Chapter 2: Literature Review

### *Previous Research*

Consider the following metaphor for language learning: two people washing windows from inside and outside of a house. They work together efficiently by washing and buffing the same pane simultaneously. It is rare, however, that their strokes are mirror images of each other. That is satisfactory, as long as the two are on the same pane, they can get the job done well. It won't do for one to get ahead of the other; neither can one accomplish it as efficiently alone. Consider a language learner busily trying to clarify things from her side, but, due to the blinding reflections of her first language, there are certain spots she just can't see. Once in a while, it is necessary for the teacher to *tap tap* on a certain portion of the window to point out something that the learner has missed. Other times, the learner consciously shifts somewhat to change perspectives and becomes aware of something. But until the learner notices the smudgy section and deals with it, the pane will not be transparent, no matter how much frantic buffing goes on on the teacher's side of the window.

The concept of *noticing* is the topic of a seminal work by Schmidt and Frota (1986) in which the former was learning Portuguese in an L2 setting. The two researchers found a high correlation between what Schmidt reported he noticed in conversation with Brazilians and what he actually produced. In analyzing the data from Schmidt's diary and recordings of taped conversations, it became "very clear that these

---

*to revise his course.* At that point, it could be crucial for the pilot to understand that *revise* in North American English, particularly American English, unlike its French cognate, *reviser*, carries with it the idea of making changes, not just looking over something to study it.

forms had been present in comprehensible input all along....When [he] finally did notice [a] form, [he] began to use it.” Schmidt posits that “those who notice most learn most” and that intake—traditionally defined as “what goes in,” a subset of the input that is “available to go in” (Corder, 1967)—“is what learners consciously notice” (Schmidt, 1990, p. 139).

This strong claim for the proactive role of learners has fueled the fires of other inquiries. Huot (1995) observed her own daughter, C., learning English in an L2 environment. By recording and comparing C.’s metalinguistic observations and her actual L2 performance, Huot was able to identify areas that caught C.’s attention and to show that attention to form sometimes played a role in understanding meaning.

Is this attention to form always spontaneous, or should instructors draw learners’ attention to certain aspects of form? Rutherford and Sharwood Smith (1985) assert that formal instruction is consciousness-raising. Fotos (1993) adds that raising the consciousness of students to certain target language (TL) features through formal instruction will trigger the noticing of those features in “subsequent communicative input,” and that advanced levels of TL proficiency is promoted by formal instruction (pp. 385-387).

Formal instruction has come in many packages through the years. Since the early 1990s, however, *focus on form* (FonF) (Long, 1991)—incidental teaching of linguistic features in contexts where meaning is paramount—has been considered to be “useful to some extent, for some forms, for some students, at some point in the learning process” (DeKeyser, 1998, p. 42). Precision on the elements mentioned above—To what extent? Which forms? To whom? At what point?—is the topic of many recent studies.



Two such studies, documented in Doughty and Williams (1998), are of particular interest to me, both for their novelty and their potential for development as classroom techniques. Swain (1998) and Doughty and Varela (1998) employ techniques for focusing on remediating student error in communicative settings. These studies add credibility to the bold assertion of Nunan (1995) that “the positive effects of instruction [on language learning] are no longer in question” (p. 149). Swain discusses the phenomenon of noticing which often takes place when a learner tries to produce the TL vocally or sub-vocally. The learner may notice the gap, the difference between his own IL and the target language, or he may notice a hole, an IL deficiency. In order to precipitate noticing on the part of learners, Swain uses a technique called a *dictogloss*, discussed earlier by Richard Kidd (1992). In this procedure, a short, dense text, authentic or constructed, is read to learners who work in pairs or groups to try to reconstruct the text. To accomplish this task, learners may engage in *metatalk*, discussions about the language they are producing. She describes this as a “surfacing of language used in problem-solving” and proposes that it be encouraged in contexts where there is a negotiation for meaning. As learners engage in metatalk, they may question their own language use or correct themselves and others. These dialogues are referred to as language-related episodes (LRE)s, and they provide a platform for what Nunan (1995) describes as “tasks which encourage learners to come to an inductive understanding of grammatical rules” within a communicative context (p. 151). Swain’s data were examined for LREs, which were in turn used in making dyad-specific, tailor-made tests that served as post-tests measuring linguistic knowledge gained through metatalk.

Swain compared the responses on the post-tests to the LREs from which the questions were drawn. In analyzing the data, Swain found that students generally stuck to the solutions they had agreed upon during the dictogloss activity, whether correct or not. She concludes, therefore, that LREs, or *periods of conscious reflection* about one's own output, may be a source of language learning. Thus, "increasing the frequency of LREs in pedagogical contexts ... may be useful in promoting second language learning" (p. 79). She further suggests that, since students tend to remember incorrect conclusions, teachers need to be available and attentive to accuracy during collaborative work.

Doughty and Varela, another researcher-classroom teacher team, push the concept of noticing further by not leaving learners to their own devices in spotting errors. They seek to draw learners' attention to problems by a process called *recasting*. With the use of well-placed rising intonation, the teacher alerts learners to errors and, if necessary, provides TL exemplars, or recasts, for learners to compare with their own IL. In corrective recasting, the teacher provides positive and negative evidence, that is, information about what the TL will and will not allow.

Doughty and Varela chose the past tense as the form in focus. They studied thirty-four grade 6, 7 and 8 students in two intact content-based English-as-a-second-language (ESL) science classes. The students were at an intermediate ESL level and were to be mainstreamed the following year. The researchers designed a control-group study in which the classroom teacher provided feedback about past tense forms for treatment-group students reporting on science experiments. There were six experiments; the first, fifth and sixth served as pre-, post- and delayed post-test. Oral and written feedback, in the way of recasts, was given for experiments two, three and four. Texts of written lab

reports and transcribed oral reports were analyzed to measure the effect of the treatment. Researchers found a marked gain both in TL use and IL versions of the past tense forms from pretest to posttest by the FonF group versus little to no change in the control group, even though the comparison group had a slight advantage over the treatment group on an oral measure. The gain was maintained in a delayed posttest.

Having established the efficacy of FonF in this study, Doughty and Varela then consider its feasibility. The difficulty for the teacher of focusing “on content, forms and classroom management simultaneously” is duly noted (p. 136). They conclude that FonF should be brief, immediate and directed at more than one student. They found that FonF poses “no risk” to the content curriculum if tasks are carefully developed and implemented. Students feel that they can concentrate on meaning, communication and form at the same time.

The question of whether learners can, indeed, consciously attend both to form and to meaning continues to interest researchers. VanPatten (1990) explores this question in a study comparing the results of learners processing information with differing demands of attention to form and content. He concludes that “humans are limited capacity processors”; simultaneous processing only occurs when comprehension is relatively automatic. Thus, advanced learners are better equipped than early-stage learners to attend to form in meaning-focused tasks.

Can attention to form on the part of any learner be augmented by textual enhancement techniques? White (1998) explores the efficacy of these techniques in helping learners “detect ... linguistic features that are present, but not perceptually salient, in the input” (p. 85). Jourdenais, Mitsuhiko, Stauffer, Boyson and Doughty

(1995) determine that typographical modifications are effective in promoting noticing of difficult TL features. Leeman, Arteagoitia, Fridman and Doughty (1995) concur in those findings, citing “bold-facing, capitalization, and typeface of different colors” as means of increasing the saliency of forms in focus.

Can learners’ own verbal output bring certain forms into focus? Leow (1997) studies L2 learners of Spanish. They think aloud while doing crossword puzzle exercises. Leow finds that learners are able to discover irregular verb forms during these exercises and are more apt, as a result of the exercise, to use them accurately in written production. Indeed, Swain (1985) maintains that “comprehensible output ... is a necessary mechanism of acquisition independent of the role of comprehensible input” (p. 252).

We may assume then that a natural interplay of comprehensible input and output as well as an emphasis, either oral or written, on particular features of the TL can increase learner proficiency and eventual levels of L2 acquisition. The specific techniques that are practical classroom options for facilitating these form-focused exchanges are as myriad as the teachers who create them. In accordance with Sophocles’ quote, though, one thing seems certain: *teaching* facilitates learning, even language learning.

### ***Theories of Second Language Acquisition***

My own compulsion to improve the linguistic proficiency of my learners has not been unlike what Nunan (1995) describes as an “obsession” to match his teaching to his learners’ needs. It goes beyond theoretical considerations; it marches to the beat of a practitioner’s heart. Every practitioner does well, however, to consider the theoretical

underpinnings of the methodology employed in the classroom. How can the findings of classical and current research in the field of SLA inform the issue of eradicating PPP errors? One must indeed start by defining the term *error* itself.

Corder (1967, 1971, 1973) makes a distinction between an *error* and a *mistake*, the former being a deviation that reflects the IL of the learner, and the latter being a performance anomaly that is either a random guess or a “slip,” due perhaps to momentary fatigue or excitement. According to Corder, errors, unlike mistakes, cannot be readily self-corrected (cited in Larsen-Freeman & Long, 1991, p. 59). Brown (1987) uses insight from Corder’s theory as the basis of a four-stage model of IL development. The first stage contains *random errors*; in Corder’s terms, this is “presystematic.” In *the emergent stage*, learners have some consistency and are internalizing certain rules. *Backsliding* to previous patterns and *avoidance* of difficult structures characterize this stage. In the *systematic stage*, learners have even more consistency and can “correct their errors when they are pointed out.” Brown calls the final stage the *stabilization stage*, dubbed “postsystematic” by Corder. At this point, the learner can self-correct; however, if stabilization is premature, fossilization can occur. The errors that are the subject of this paper, PPP errors, fall roughly into the latter two stages described by Brown. They are not random, for they occur regularly. They are also not the errors that emerge at the beginning stages of IL development. Unless the learner becomes aware of them, they remain what Corder calls errors and may become fossilized.<sup>5</sup>

---

<sup>5</sup> In theory, there may be a need to distinguish between *error* and *mistake*. In practice with my students, I use these terms interchangeably.

Aljaafreh and Lantolf (1994) reiterate similar ideas using slightly different benchmarks. They describe five transitional stages from learner dependence (on a tutor) to learner autonomy regarding error correction. Briefly, these are:

- Level 1 Learner is not able to notice or correct the error and probably has no awareness of the problem.
- Level 2 The learner is able to notice the error but cannot correct it.
- Level 3 The learner is able to notice and correct the error, but only with help.
- Level 4 The learner notices and corrects an error with minimal or no obvious feedback from a tutor and begins to assume full responsibility for error correction.
- Level 5 The learner becomes more consistent in using the target structure correctly in all contexts. In most cases, the individual's use of the correct target form is automatized.

As well as concepts of the stages of IL development, insights from another theoretical domain should be considered in the issue of remediating PPP errors, that of information-processing vis-à-vis second language learning. McLaughlin, Rossman and McLeod (1984) distinguish between *controlled* and *automatic* processing. In controlled processing, attention is required, and there is a diminution in one's ability to "perform simultaneously any other task that also requires [mental] capacity investment." Automatic processing is characterized by increased speed, so that attention can be redirected to other tasks. McLaughlin et al. posit that "complex skills [such as language use] are learned and routinized (i.e., become automatic) only after the earlier use of controlled processes" (p. 139).

The concept of controlled processing leading to automaticity may have been the baby that went out with the Skinnerian bathwater, for indeed automaticity smacks of habit-formation, the “goal of the behaviorist approach” (Long, 1991, p. 55). The dichotomy of *performance* and *knowledge* is akin to those of *controlled* and *automatic response* described by McLaughlin et al, *learning* and *acquisition* defined by Krashen (1976, 1981), and *explicit* and *implicit* knowledge delineated by Bialystok (1978, 1981). The respective roles of these seemingly polarized constructs in language learning remain controversial (Lightbown, 1985). Whereas Krashen maintains that “‘learned’ knowledge can never become ‘acquired’ knowledge” (cited in Doughty & Williams, 1988, p. 203), Schmidt (1990, p. 129) unabashedly concludes that “subliminal language learning is impossible, and that noticing is the necessary and sufficient condition of converting input to intake,” that is, of assimilating or acquiring language features. Acquisition, assert McLaughlin et al (1984) is a “progression from a more cognitively demanding to a more autonomous stage of performance” (cited in Ellis, 1997). Van Lier (1996) concludes that this progression toward more “energy-efficient” cognition requires that learners “remember material that [they] have learned,” and some “kind of rehearsal is therefore likely to be necessary” (p. 57). McLaughlin (1990) goes on to advocate “overlearning,” that is, practicing a skill “again and again until no attention is required for its performance” (p. 115). These last words may very well strike fear into the hearts of those who were seemingly pummeled by practice during the era when the audio-lingual method of instruction was prevalent in language classrooms, but the maxim *of practice makes perfect* may well be reincarnated into a useful language-teaching principle.

DeKeyser (1998) supports the idea of practice in form-focused instruction. He claims that after a certain stage of “skill acquisition is reached, strengthening, fine-tuning, and automatization of the newly acquired ... knowledge are then a function of the amount of practice, which increases speed and reduces the error rate and the demand on cognitive resources.” It is “thanks to explicit teaching” that new structures become “salient and fully understood” and students can “meaningfully integrate [them] into long-term memory, in other words, acquire [them]” (pp. 49-58).

Though these ideas seem radically different from those of natural-acquisition theorists, there must be some avenue for internalizing difficult linguistic features; noticing them in meaningful contexts and consciously reflecting on them seem to be clear road signs along the way.



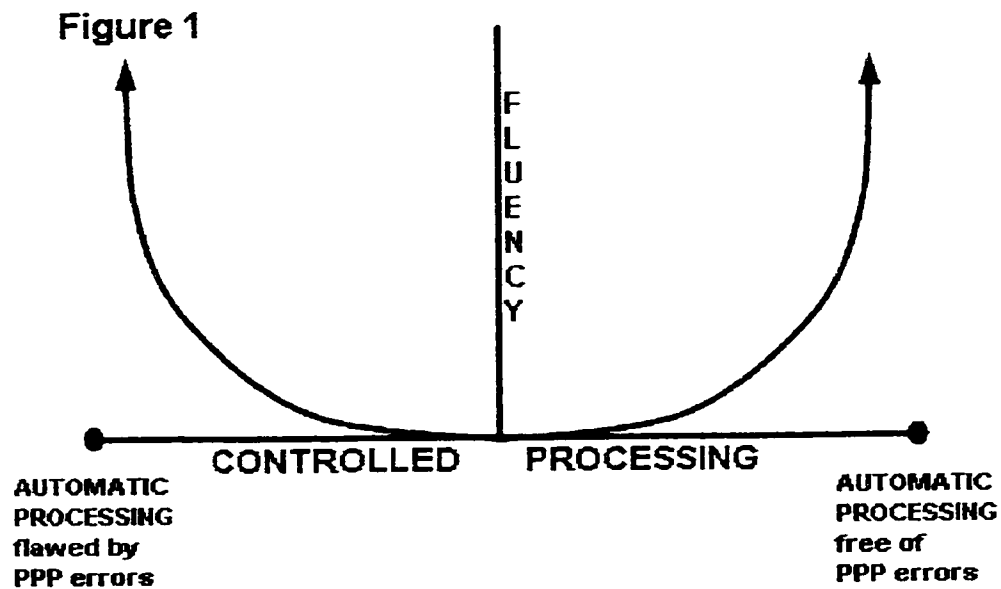
## Chapter 3: Theory to Practice

### *A Model for PPP-error Eradication*

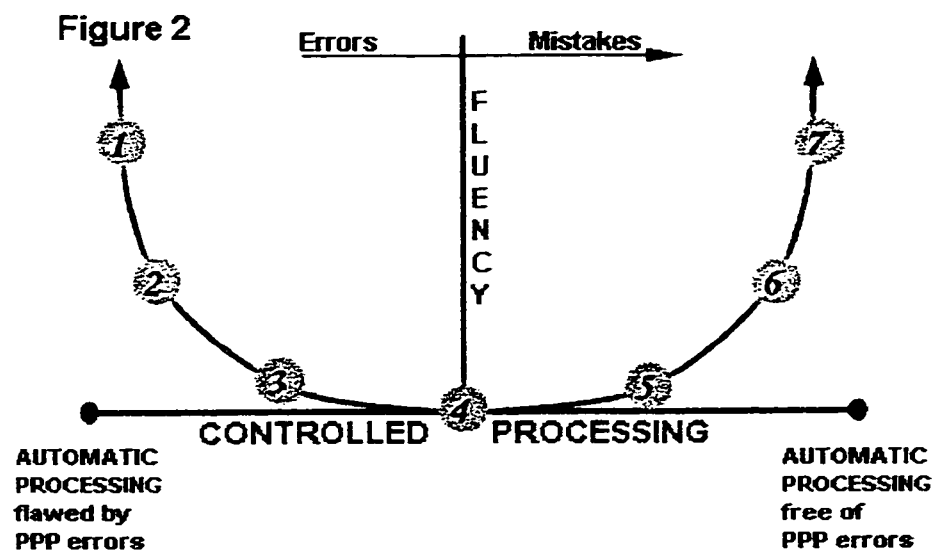
The road to native-like discourse may not always be straight, but I would like to propose a *continuum of automaticity* to describe a process for eradicating learner errors. At one end of the continuum lies the repertoire of PPP errors. They are automatic in that the learner makes them without thinking. They don't seem to require any attention, but occur spontaneously, seemingly with no investment of mental processing. They do not affect fluency, the speed and evenness of discourse. They could be called errors in Corder's terms, for they seem to materialize from the learner's underlying L1 competence, and the learner is generally unaware that a problem exists. At the other end of the continuum is the same repertoire of errors, but the learner has internalized the correct form of these L2 features. Utterances containing these potential errors are spoken or written with virtually no conscious reflection. Fluency is again unhindered. See Figure 1 for a graph of fluency as a function of automatic processing.<sup>6</sup>

---

<sup>6</sup> Gatlinton & Segalowitz (1988, p. 473) view automaticity as a *component* of fluency, but for visual purposes, I have chosen to illustrate it here as an independent variable affecting and effecting fluency; that is, I have graphed fluency as a function of automaticity. Both models seem reasonable.



This figure can be refined by incorporating other germane concepts. (See Figure 2.) For the sake of simplicity, we will assume that the point at which a learner corrects himself or herself in mid-discourse is the point of lowest fluency, point 4. There is an observable glitch in fluency. The learner breaks for self-correction. It is perhaps the only observable part of the learner's journey from one end of the continuum to another, and should be taken as a sign of marked progress along the way. Before and after that point—and I do not speak of one isolated incident—there are characteristic steps. Again, these steps are not isolated incidents, but phases on the continuum



- 1 The learner automatically includes PPP error \*\*\* in discourse.
- 2 The learner is aware that PPP error \*\*\* has been made but quite a bit after the fact. “Hmm, I think I should have said +++ instead of \*\*\*.”
- 3 The learner realizes that PPP error \*\*\* has been made just after the fact. “Oh, nuts. I should’ve said +++. Too late now.”
- 4 The learner realizes in mid-discourse that he or she is making a PPP error and does self-correction. “\*\*\*, uh, +++.”
- 5 The learner thinks about the PPP error just before making it and does not verbalize it. “Hmm. If I phrase this bit like +++, I’ll get it right.”
- 6 The learner has only slight conscious forethought about structure +++.
- 7 The learner has virtually no conscious thought about structure, but uses +++ naturally.

In a word, speakers move along this continuum from automatically incorrect usage to automatically correct usage. Somewhere along the continuum, the learners notice—often with help—the difference between the performance at opposite endpoints of the continuum and adapt their output accordingly. Realistically, not all learners will reach the desired endpoint with all errors; neither is it possible for teachers, by dint of their dedication or indefatigability, to perform miracles. But, as Larsen-Freeman and Long (1991) point out, the “minimal solution” is not always preferable. “Intervention may improve the quality and level of second language ultimate attainment” (p. 304).

Nunan also denounces the fatalistic outlook that “it would never work here,” oftentimes used as an excuse by practitioners for inaction (1995, p. 133).

### ***A technique for PPP error eradication***

The appropriate action and when to take it will likely be a source of debate among SLA researchers for some time to come. In the meantime, teachers must do something. A few years ago, I found myself in a context of teaching francophone business persons slated to enter English university in the Executive Master of Business Administration (EMBA) program. This entire program is learner-centered in that it is designed to fit the demands and constraints of its high-profile clientele. Given the tailor-made tenor of the program, and being a freshly-minted ESL instructor unjaded by years in the classroom, I thought it logical to design an English program custom-made for my students. I had the students audio-tape role plays of business negotiations, among other activities. I then analyzed these recordings and transcribed sentences containing the students’ individual errors in pronunciation,<sup>7</sup> grammar and usage. Each pair would then spend time in subsequent lessons, correcting their errors when they could and asking questions when they couldn’t. (I would put the corrected form on the back of the paper, but they tried to determine the problem without looking.) This error transcription was a painstaking and time-consuming procedure, but one which was well-received by my students. They were thrilled to find out what their *own* errors were and what to do about them. Along with this *error detection*, we often engaged in what I call *error etymology*, discussing the origin of the error. Lightbown (1998) suggests that researchers focus not only on

---

<sup>7</sup> I used a combination of diacritical markings, capital letters and boldfacing to portray phonological features.

identifying difficult features, but “seeking to understand what makes them difficult or impossible to acquire without guidance” (cited in Doughty and Williams, p. 196). The learners themselves were actively a part of that type of research, and I was much enlightened by their findings.<sup>8</sup>

In this error correction task, which was actually an addendum to a communicative activity, the students often engaged in metatalk, as did the students in Swain’s study using the dictogloss technique. But in this case, the learners were provided with precise corrective feedback at a critical moment, even though it was not given in real time. Somehow, and I believe it was because the role play exercise was totally creative and spontaneous, learners seemed to remember quite clearly what they were trying to say in the context from which I lifted errors, even if some time had elapsed between the recording and the error correction task. This acuity of learner memory also astounded the researchers in the study by Huot (1995) of C. For any given element, “she remembered the place and the circumstances of learning” (p. 94). Because learners seemed to *replay* in their minds the context in which an error was made, this exercise promoted the kind of noticing that is the goal of focus on form which is given at the precise moment when the learner is able to see the relationship between what is meant and how it should be said (Lightbown, 1998, p 188). Sometimes an *elaborate explanation* of the target structure was appropriate<sup>9</sup> or a discussion about *eradication strategies*, but these were ad hoc and

---

<sup>8</sup> I once transcribed an expression that was used inappropriately in a role play. In the scenario, the speaker had met his interlocutor before, yet he greeted him by saying “How do you do?” I explained to him that the expression he had used was a one-time-only gambit used upon first meeting someone. I went on to say that *How are you?* is used in subsequent meetings. The speaker himself told me that he used the former all the time “because it is much easier to pronounce than [hawar yuw]. Something about that English retroflex r triggered an avoidance strategy. The point is that the student did his own error etymology. Later, he greeted me in passing with “How dɔ...how ahr you?” I was just fine!

<sup>9</sup> I agree with Johnson (1988) that explanation is for errors, not mistakes.

never belabored. For lack of a formal name for this technique, I will call it *error replay*.<sup>10</sup>

I maintain that one of the values of *error replay* as a technique is that learners relive, in a virtual sense, the communicative impulses that triggered the flawed discourse. They usually remember exactly what they were trying to say. They can then go back and repair errors and discover better ways of saying things, all without having to sacrifice fluency in the actual communicative experience. In the same manner as *instant replays* in sports are run again and again from all angles, error replays may be given as much attention as needed for a full assessment and understanding of the problem. Johnson (1988) maintains that, in order to recognize flawed performance, learners “need to see for themselves what has gone wrong, in the operating conditions under which they went wrong” (p. 93). Another value of this technique is that there is a transfer of knowledge from one mode of communication to another. Learners see in written form what they produced orally. Fanselow (1977) advocates the media of writing in conjunction with speech. “[I]t is more explicit than speech for some people” and “seeing language in black and white helps some hear it” (p. 589). Indeed, the majority of adult learners I have worked with call themselves *visual learners*.

I have retained *error replay* in one form or another with all my students, both among business persons and in high school and universities. Obviously, the high school context does not permit the same individualized error analysis that can be done with smaller classes of EMBA students. But the technique is adaptable. In high school and

---

<sup>10</sup> There is nothing new under the sun, and I am aware that teachers have been pointing out and correcting errors in many ways for a long time. Some textbooks have error analysis sections in which authentic learner errors are presented for students to correct. I hope to breathe new life into this technique by making

university classroom contexts, where procuring one tape recorder for every two pupils is unthinkable—not to mention the tedium of reviewing fifteen plus tapes—I have transcribed PPP errors from written work, oral presentations and general discussions, one set of errors from each particular assignment that lends itself to the activity. I leave enough of the original sentence in each example so that the students can recognize the context, and we work together as a class to correct them. Students often recognize their own errors—and those of others, in the case of oral presentations—and that’s part of the fun of it. Johnson (1988) notes that second best to seeing one’s own mistakes is seeing “others making the same mistake in the same conditions” (p. 93). My learners all seem to draw from the same repertoire of errors, and individual items from the PPP repertoire surface and resurface. I am determined to be as persistent as the errors are. In this regard, I can identify with the teacher in the Doughty and Varela study, who certainly must have recast the past tense dozens of times. Unlike that teacher, I lead the learners to notice a variety of errors simultaneously and in the same order in which they appear, for this seems altogether natural to me. It may also avoid the possible effect of overgeneralization of over-emphasized structures. To encourage continued reflection on error correction, I use the structures that come up to design tailor-made grammar and usage checktests, not unlike those of Swain, and administer them formally in high school and university and informally among business persons.

---

it custom-designed for individual learners, that is, by doing it when and with whom it is most effective, and by adding the dimension of having learners determine the *why* of errors as well as the *what*.

## ***A Rationale for Error Correction***

Testing for PPP error eradication may seem a bit anachronistic in today's communicative world of language teaching. However, there are communicative aspects of *error replay* which recommend it to the communicative classroom. Firstly, it raises the consciousness of learners to certain features. According to Fotos (1993), this allows them to "continue to remain aware of the feature and notice it in subsequent communicative input" (p. 387). Students have often reported back to me the times they noticed something specific in the *real world* of English subsequent to speaking about it in class, linguistic features that they had certainly heard before but never really listened to.

*Error replay* gives some direction to form-focused instruction. Fanselow (1977) describes error correction as a "springboard for lessons" (p. 591). In the same way, *error replay* provides a platform for discussions about the similarities and differences between first and second languages. It can be made into a game with teams working on detecting and correcting errors, points given for both detection and correction, and even bonus points for *error etymology*. In short, what's the error, how do you fix it and why do you make it? Some aspects of *error replay* activities may become part of the in-jokes, which are the stuff of classroom rapport. But these communicative frills aside, students want to be corrected, and if teaching is to be learner-centered, it will include a component of error correction.<sup>11</sup>

---

<sup>11</sup> At one point, my Secondary IV students literally begged me to correct their pronunciation. I had not emphasized phonological aspects in my teaching because their speech was quite intelligible. They were not satisfied with that. From that point on, I did a variation of *error replay*, taking note of particular trouble spots and confusing minimal pairs to practice later. We talked about the difference between the French and English sound systems and why certain words came out the way they did. We also discussed spelling mistakes that were tied to pronunciation problems: *leaving* for *living*, *whit* for *with*, *is* for *he's*, *breed* for *breathe*, etc. (This last was in a sentence "I had trouble to breed under water.") I was amazed at my students' interest in these matters, and I was sorry that I hadn't indulged them sooner.



The desire on the part of students to be corrected is well-documented. In Nunan's discussion of learning preferences of teachers and students (1995), error correction was rated very high by the students and very low by teachers. Conversely, the students indicated that they did not wish to be left to discover their own errors, a practice which teachers preferred to a very high degree. Doughty (1998) deems it inefficient to leave "learners to their own devices when instruction might provide some useful shortcuts" (p. 6). Cathcart and Olsen (1976) report that, though there is a saturation level for the amount of correction learners will tolerate, classroom students "generally want and expect errors to be corrected," and Olejedo (1993) adds that "learners want to be corrected more often than teachers think" (p. 74).

This desire for correction by teachers on the part of learners may stem from learners' intuition that their native-speaker interlocutors are not correcting them. Outside of the classroom, native speakers correct only a small percentage of errors made by learners. Chun, Chenoweth, and Luppescu (1983, p. 542) found this percentage to be 8.9% in 15.1 hours of recorded discourse among native and non-native speakers. Extrapolating from the data in their study, one can assume that correcting just 25% of the errors of the speakers involved would necessitate one correction per minute, or one every 15 seconds. How distracting to communication that would be! Native-speaker reluctance to correct errors is therefore not surprising since, as Carroll, Swain & Roberge (1992) state, "[c]orrection violates many of the usual conventions of discourse" (p. 177).

Because error correction is not a normal part of peer discourse, many educators worry about the negative affective consequences of this practice. Will it discourage students from speaking if they sense that they are being judged as they speak? Tomasello

and Herron (1989) raise this issue in describing their “garden path technique” of inducing transfer errors in learners and then correcting those errors after the fact. They recognize that “either [teachers] do not emphasize student errors and risk having them fossilize, or they emphasize them and risk raising the students’ affective filters” (p. 392).

Dekeyser (1993) conjectures that the affective impact of error correction on learners depends on their level. For the best students, it can have a positive effect, but for low achievers, “frequent negative feedback may override the positive effect of the information provided” (p. 504). Perhaps Dekeyser’s distinction between the effect of error correction on high- and low-level achievers is imprecise. It is less likely that the achievement level of learners determines their level of tolerance for error correction than that the frequency of the negative feedback does so. I would venture to say that no learner being corrected at a rate of once every 15 seconds would produce much discourse without some sense of defeat. Chaudron (1988) further suggests that learners need to be released from viewing errors as a “form of failure” (p. 134).

However learners view error correction, they continue to ask for it. Olejedo’s study (1993) of learner preferences indicates that learners “want correction to be comprehensive rather than selective” and that they disagree with the view that “constant error correction could frustrate the learner and inhibit his willingness to perform in the language” (p. 78). In my experience, however, virtually all students indicate that they want me to correct *all* their errors...until I do. At that point, they are more willing to let a few slide for the sake of communication. So how do teachers reconcile this desire on the part of learners to be corrected with their own pedagogical intuition that learners *don’t know what they are asking for?*

The findings from Olejedo's study speak to this issue. Overcorrection of errors, "especially at the early stage of learning, may be unproductive, if not also confusing and misleading to the learner" (p. 72). Other students can benefit from error correction, especially if they are proactive in the process. Lyster and Ranta (1997) conclude that corrective feedback which requires a "negotiation of form, that is, when the correct form is not provided to the students ... and when signals are provided to the learner that assist in the reformulation of the erroneous utterance" is more effective in leading learners to correct certain errors immediately than other more explicit forms of feedback (p. 58). Indeed, learners in Olejedo's study indicated that they want teachers to "provide relevant comments and cues which enable [them] to self-correct" (p. 80). In this way, the sense of defeat associated with error correction is mitigated.

As well as being concerned about the negative affective impact of error correction, instructors have to deal with the fact that correcting in real time during discourse is decidedly intrusive. Schachter (1981) devised a less-intrusive, non-verbal technique for effecting error correction. Her *Hand Signal System* is used to provide immediate, specific feedback to learners testing hypotheses. These silent cues minimize the distraction of traditional interventions, but they still affect oral fluency as learners' attention is drawn externally to problem areas. *Error replay* imposes no external constraints on learners' attention; there is no intrusion in communication in real time. Speakers produce streams of unhindered discourse, knowing that the errors will be dealt with at some later date. They will not miss the opportunity to fine-tune areas that they are not sure of. But that fine-tuning is delayed. I rarely interrupt a speaker in real time, but I correct errors at a very high rate. If I understand the message, it is only when the

speaker him or herself solicits my help or when raising an eyebrow or tilting my head is sufficient to prompt a self-correction that I intervene during learner discourse. Later, during *error replay*, the learner relives that communicative experience as we discuss vigorously what was said, what was meant, correct structures, more precise lexical items, pronunciation problems, etc. It is a cooperative effort; learners are proactive in this effort. One thing is certain, though. They become fully aware of their errors.

The unequivocal awareness of errors seems important to error eradication. Roberts (1995, pp. 163-164) maintains that learners should “recognize that they are being corrected” and understand the nature of the correction. If not, this “erratic, ambiguous” error correction is ineffective. The ambiguity, inconsistency and imprecision of error correction by teachers is well-documented (Allwright, 1975; Cohen, 1976; Fanselow, 1977; Chaudron, 1988). This is understandable, given the affective concerns of teachers discussed earlier. Again, *error replay* recommends itself as a blatantly unambiguous approach to dealing with errors. This approach leaves no question marks in the learner’s mind.

Doughty and Williams (1998) describe two approaches that teachers may take concerning error correction, or more generally, form-focused instruction. The *proactive* stance involves selecting in advance a TL aspect to focus on. In the *reactive* stance, teachers deal with problems as they arise. In *error replay*, it is the latter approach that is used. The burden of choosing a form to focus on is lifted; it is generally the PPP errors that come into play. In Doughty and Williams’ terms, “the choice is restricted to classroom learner errors that are ‘pervasive,’ ‘systematic’ and known to be ‘remediable’” (p. 206). They go on to conjecture that the reactive stance is most appropriate when the

learners have the same first language and the teacher is experienced enough to have some idea of what to expect.

In *error replay*, teachers gain experience quickly, and they can choose to include or ignore errors, based on their relative pertinence, universality and remediability. One would not want to use this technique with beginning students who were producing myriad random errors, nor would it be as helpful in classrooms full of one-learner, one-language students. Even in homogeneous classrooms, it would be less effective if the instructor had no working knowledge of the first language of his or her students. I have found, though, that teachers who work with certain language groups over a period of time get to know the characteristic repertoires of PPP errors quite well. These caveats notwithstanding, the merits of error replay are worth considering.

My experience using this method over a decade has provided me with much anecdotal evidence for its effectiveness. I worked with the same intact groups of high school students over the course of four to five years, and I saw a diminishment in PPP error production in both oral and written speech samples, though the latter was more observable. In many of my senior students' later submissions, I was hard-pressed to find more than a handful of minor errors. Among my students in the business world, I have taught at least three for which, after about a year, I stopped taping discourse. That was because the frequency of errors decreased to the point that it was possible to jot down the errors these students were making in real time. I often heard them correct themselves as they spoke, a sign that I took as an indication that they had advanced along the continuum of automaticity. It is debatable to what these signs of improvement are attributable—exposure to comprehensible input, communicative teaching, outside contacts with the

target language—but my intuition tells me that my students stood a better chance of improvement than do those of teachers who take what Doughty & Williams describe as a "laissez faire attitude toward the development of learner accuracy" (p. 203). The value of error replay and techniques like it lies in their role of promoting noticing enough times to effect automaticity, and by extension, fluency in learners' speech. Fotos (1993) surmises that "there may be some sort of threshold effect operating for noticing levels, whereby a certain frequency of noticings<sup>12</sup> must occur before consolidation of explicit knowledge takes place" (p. 400).

According to the model described earlier in this paper, this consolidation of explicit knowledge leads to automaticity. But it is more than automaticity that is the desired goal; it is error-free automaticity. Brown points out that "the internalization of incorrect forms takes place by means of the same learning processes as the internalization of correct forms" (1987, p. 187). One way or another, learners generally develop automaticity in speech patterns; why settle for the flawed variety?

The quest for spontaneous, error-free discourse is a bit like that of any prized treasure. There are perils along the way, but it is the quest as much as the object of the quest that brings reward to the seeker. I would like to specify the object of error correction: the elimination of PPP errors. I will use the term *outtake* to refer to the elimination of a single error from the PPP repertoire. A learner accomplishes *outtake* when he or she can reliably and automatically use a correct form in an obligatory context

---

<sup>12</sup> We sometimes underestimate the number of times a particular error must be pointed out before students click in and self-correct. I often use the example of advertisers with my business students. It is said that consumers must see or hear about a product seven times in different contexts before they are aware of it enough to consider buying it. Having said this to my students, it softens the blow when I point out the same error, often in different contexts, to the same students again and again. Some of them have jokingly kept count of the reminders about certain structures. Amazingly, none have gone over seven.

in which he or she once automatically used an incorrect form. I will adapt some ideas from Chaudron (1985, pp.1- 2) in explaining *outtake*. He defines intake as “the learner’s perception and processing of target language input.” He further claims that “intake is not a single event or product”; rather, there is “ a continuum from preliminary intake to final intake.” I will define *outtake* as the process by which learners remove from their speech flawed linguistic patterns. It involves noticing, understanding and finally producing target-language output. It is not a single event, but a *continuum from preliminary outtake to final outtake*. By this definition, outtake is a *process* and a *product*, the quest and the object of the quest. I would like to demonstrate the *outtake* process by describing a case study of an adult learner. I will examine the process and document any specific *outtakes* that occurred during the study.

## Chapter 4: Description of a Case Study

### *Procedure*

In order to determine to some extent the net effect of *error replay*, I documented the progress in language learning of one of my private students over the course of nine months. We met for approximately two hours, three to four times per month. Part of the time was devoted to *error replay* from previous sessions. Part was devoted to free discourse. During the discourse sessions, my input was minimal. I generally interviewed the participant about his job, about his interpretation of current events, and about his philosophical inclinations.<sup>13</sup> The documents that I have are transcripts of tape recordings of free discourse. I transcribed utterances containing instances of flawed structures as well as correct forms in obligatory contexts where errors had occurred previously. There are also instances when the learner was self-correcting in mid-discourse. These transcriptions were dated over the course of the study. At the end of the study, they were reviewed for evidence of *outtake*.

I also transcribed the reflections that the learner recorded during the study. Sometimes these reflections were in tape-recorded diary entries. Sometimes they were spontaneous reflections that were caught on the audio-tape of free discourse. Sometimes they were answers to questions posed by me. The reflections of the learner were also dated, and the transcripts of learner speech were compared to those of learner reflections. These reflections were reviewed for instances of noticing of structures previously pointed

---

<sup>13</sup> On occasion, we would stray from these more elevated domains to ordinary topics. It was always interesting to note the decrease in linguistic ability that accompanied these journeys into the everyday world of hearth and home.



out and for insights from the participant concerning his own learning. This study was designed for three purposes:

- To provide anecdotal evidence for the effectiveness of *error replay*
- To provide useful insights from a learner about his own learning process
- To generate hypotheses concerning L2 acquisition

### ***Defining Outcome as Outtake***

In this study, evidence for language learning consists of evidence of *outtake*, either the process or the product. *Outtake* includes instances of noticing, of self-correction and of target-language output in environments where formerly there was flawed performance. Virtually all errors (especially from the PPP repertoire), instances of self-correction and instances of corrected forms were transcribed from the recordings of free discourse.<sup>14</sup> These transcriptions were provided to the learner each week, along with feedback concerning vocabulary items, pronunciation peculiarities and notes on usage. No specific structures were targeted for this study since it was assumed that learners do not always focus on what researchers do. *Outtakes* observed toward the end of the study were traced back to origin, that is, back to the point when the teacher originally pointed out and corrected an error. Six weeks after the conclusion of the study, one more interchange with the participant was recorded. Certain observed ‘outtaken’ structures were elicited in conversation to test for IL stability.

---

<sup>14</sup> I do not claim that this process of transcription was 100% exhaustive. There are no less than 20 hours of recorded free discourse involved in this study. I was a teacher/action researcher. That is, I had an obligation to teach the participant as well as a desire to observe him. As a teacher, I followed my accustomed approach of recording interviews and transcribing errors in class notes. Also included in those class notes were sections on vocabulary, usage and pronunciation. The error replay section was only one part of what was happening in the class. I probably did not transcribe all the instances of correct usage for research purposes.

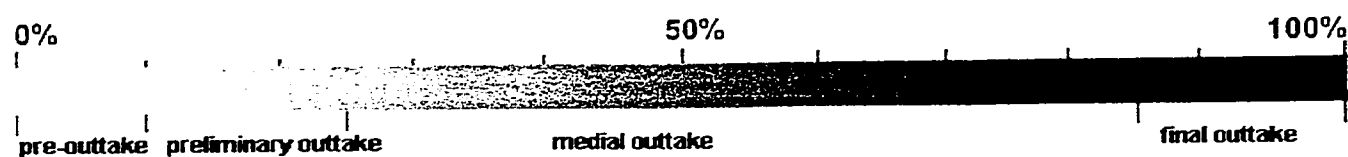
### *Description of participant*

M. is a French-Canadian executive, a high-intermediate speaker of English as a second language. He was a student of mine for nine months. His work was very demanding; he worked almost exclusively in French during the course of the study. His only regular exposure to English, apart from our sessions together, was listening to English radio to and from work, a fifteen-minute commute. He had virtually no opportunity to speak English outside of class during the period of the study.

### *Results of the Study*

For the purpose of recording results, I will define four broad segments on the *outtake* continuum.

**Figure 3**



- **pre-outtake**=minimal presence of correct form in output; little indication that the learner is aware of an error, correct form may appear by chance (1-10% correct usage in obligatory contexts).
- **preliminary outtake**=initial emergence of corrected form in output; learner has noticed a gap in his or her IL, but is quite unclear about the rule for a certain structure (11-25% correct usage in obligatory contexts).
- **medial outtake**=variable presence of corrected form in output; learner has basic understanding of the structural rule but is uncertain to what extent the rule applies; does a lot of hypothesis-testing and makes mistakes (26-85% correct usage in obligatory contexts).

- **final outtake**=presence of corrected form in approximately 86-100% of time; learner has gained relative automaticity in producing correct structure.<sup>15</sup>

The following examples from M.'s speech samples illustrate the outtake process in action. Each outtake documented in later samples is traced to origin. Any interventions or learner reflections are included in the chronology of the outtake. Researcher/teacher's words are shown in brackets. Editorial comments are shown in parentheses.

### *Outtakes for M.:*

1. Pronunciation of the word *probably* has reached final outtake stage: /prɔ̃bæbli/ became /prɔ̃bɔ̃bli/.
  - February 17, 2000—Pre-outtake stage--First citing of incorrect form in class notes from previous lesson; teacher mentions errant stress pattern.
  - March 30, 2000—Preliminary outtake stage--Cited again in class notes; teacher uses pronunciation trick: *think bubbly, as in champagne, probbubbly*
  - August 3, 2000—Medial outtake stage--Citing of variable usage is recorded in class notes; learner corrects himself 3 times in mid-speech, uses a hybrid form 4 times and pronounces it with correct stress 4 times.
  - August 9, 2000—Final outtake stage—Citing of 3 correctly-spoken forms; no incorrect forms.
  - August 9, 2000 Excerpt from interview.  
[Why did you pick that particular thing to correct (probably)?] Probably, because I use it very often. That's the only reasonable explanation I have. It's very frequent.
  - September 14, 2000—Final outtake stage—Citing of 4 correct forms; 1 incorrect form.
2. Overuse of *do/does/did* in simple past form of affirmative statements reached the medial-outtake stage. Example: *They did go* instead of *they went*

---

<sup>15</sup> These stages correlate closely to the levels described by Aljaafreh & Lantolf (1994): level 1/pre-outtake, level 2/preliminary outtake, levels 3 & 4/medial outtake, and level 5/final outtake.

- February 17, 2000—Pre-outtake stage—First citing of misuse in class notes; teacher gives brief explanation.

They *did never admit* that they play a key role in the Holocaust.<sup>16</sup>
- April 6, 2000—Preliminary outtake stage—Learner is aware of something precarious about the structure, but does not know what the correct form is.

You *proposed* me, you *did propose* me to buy new P.C.
- July 19, 2000—Preliminary outtake stage—Learner is aware of something wrong, but still cannot quite put a finger on what the correct form is.

And I *did give*, I *gave* the posters to all the young, small boys and girl.  
I always *switched*, I *did always switch* to *his* because...I don't know why.
- July 26, 2000--The following are learner reflections upon correcting the forms above. The learner seems to be trying to construct a reliable rule for this form.

*And I did give/I gave*

I would say *did you give* but when it's affirmative, it's easier to say and the right way to say it is *I gave*. [So you know that rule from somewhere? Who taught you that?]

I think that if I pay attention, I already knew that...

*I always switched/I did always switch*

I really have to correct that because I often use *did* at the affirmative. (*Teacher gives an explanation of emphatic do as possible reason for incorrect usage.*) So if you want to give some emphasis to the fact that you did it. I mean that...you want to underline, to insist, to give some emphasis that I **did** give water to your dog. Don't ask me four times a day.

[Why do you go back and forth on some of these forms? I *switched*/I *did switch*.]

The reason is that it's just that I want to be sure that I use at least one time the right way. [Do you speak like that when you're speaking to people not like me?] ProBA...**PROBABly**. When I'm not sure of myself, I will repeat and will use both ways of trying to say the same thing.
- August 3, 2000—Medial outtake stage—Learner is correcting himself, but not reliably.

Finally, I *did agree* with his choice.

François *did use*...he *used* her car.

She doesn't understand why young boys *do like* cars so much.

Finally, we reached the decision

Finally, I decided to buy that one.<sup>17</sup>

<sup>16</sup> This example is complicated by the use of the negative form *never*.

<sup>17</sup> Positive evidence for this error is speculative because it is simply the unremarkable use of the simple past. I chose these latter two examples because the use of the simple past was in a context in which I had previously heard the overuse of the emphatic do/does/did, that is, after the word *finally*.

- August 16, 2000—Medial outtake stage—Learner has variable performance, coupling overuse of *do/does/did* with a double past (marked in boldfaced type), possibly indicating a developmental move toward a target-like structure.  
He **did** came from Victoriaville like I did.  
They saw...  
They decided...
  - September 14, 2000—Medial outtake stage—Same indications as August 16  
The premiers of Quebec **did** accepted 30 years ago to share the power with the trade unions.  
I gave a homework to...  
Do you know what Socrates told to his pupils?
  - September 21, 2000—Medial outtake stage—Learner is correcting himself more reliably; only one incident of flawed form in 30 minutes of recorded free speech.  
At the very beginning they *told*...  
We *paid* too more attention to critics.  
They *appreciated*...they *did appreciate*...they *appreciated* one or two ideas.  
They never *accepted* to have only one association for boys and girls.  
The company *accepted* to pay the \$50,000.
  - October 4, November 7, 2000—Medial outtake stage—No evidence of flawed form in 70 minutes of recorded free speech.<sup>18</sup>
3. Redundancy of past form with *did* reached the medial-outtake stage. This error is closely related to error 2. Example: *Did* you *saw* the Prince?
- March 2, 2000—Pre-outtake stage—First citing of incorrect usage; some discussion about the past being carried by *did*.  
When *did* I *met* him last time?
  - July 19, 2000—Pre-outtake stage—No evidence of self-correction.  
Did you *saw* the Prince?
  - August 9, 2000—Preliminary-outtake stage—Learner is starting to correct himself.  
Maybe she *did not understood*...maybe she *did not understand*...
  - August 16, 2000—Preliminary-outtake stage—Correct and incorrect forms are used variably.  
He *did came*...

---

<sup>18</sup> Though this last sample is impressive, I'm hesitant to assign a final outtake level to this error since the corrected form is relatively unremarkable.

When I *did sign* that letter... (*emphatic do is appropriate in context*)

- September 14, 2000—Medial-outtake stage—Learner is self-correcting; there seems to be an awareness of the problem and the correct form.

*Did you read* (past /rɛd/) . . . *did you read* (present /rɪd/) La Presse...

- September 21, 2000—Medial-outtake stage—Evidence of correct usage.  
As a whole, they *did present*, very factually, these forums. (*Emphatic do is correct in context.*)  
I *did not do* so much thing.
- November 7, 2000--Learner reflections on correction of *Did you saw the leaves this fall?* Did you see the leaves? Oh, it's so easy...I think it is easy, yes. And let me tell you that I think that I'm...*que je gagne le bataille* [that you're winning the battle?] that I'm winning the battle against myself. More and more I say the right thing. I say *Did you accept, Did you show him, did you anything*. It was an automatism: *Did you saw, Did you learnt, did you uh...*not completely an automatism, but nearly an automatism. And I think that I'm shifting now. Most of the time, I will say naturally *Did you see the leaves this fall?*
- No further evidence of this form in 40 minutes of recorded speech samples.

4. Overuse of present perfect form in contexts that require the simple past. This form reached the medial-outtake stage. Example: *I have seen a good movie last night.*

- February 10, 2000—Pre-outtake stage—Learner demonstrates no awareness of incorrect usage of form.

I've been expelled of the school. (Narration of past events; obligatory context for simple past.)

- February 24, 2000—Pre-outtake stage—Learner continues to overuse incorrect form.

His (Henry VIII's) successor *has been* Elizabeth.

She *has been* CEO of TW and after that vice president for WW Inc.

- March 16, 2000—Preliminary-outtake stage—Evidence of some awareness of problem, but self-correction is unreliable.

Finally, I *fell*, I *have fallen*...

- April 6, 2000—Preliminary outtake stage—Instances of misuse persist. (Citing correct usage is difficult since it is simply the unremarkable simple past.)

The planning of Mirabel *has been* really made to deserve Ottawa area and Montreal area.

The decision *has been taken* only by the federal cabinet. (speaking historically; obligatory context for simple past.)

Jean Drapeau *has been*...

- April 20, 2000—Same as above  
The integration fares *have been introduced* only three years ago.
- July 18, 2000—Medial-outtake stage—Learner is aware of problem and is starting to correct himself, looking for verification of hypotheses.  
I mean, even in the mind of our parents, because when Jean Lesage has been elected... was elected?... was elected in 1960, on the twenty-two of June...
- July 18, 2000—Learner reflections while looking at notes from previous lesson.  
...So that's why I *was expelled* out of school. [You seem to be correcting yourself.] Yes, I'm correcting myself. [Why? Why do you correct yourself?] Naturally, I would say in *English I have been expelled of the school*. I don't know why. And *of*, I would write *of* with two *f*. I don't know why. [From is probably better.] *From* school. So *I've been expelled...j'ai été expulsé...I was expelled*. I have to correct myself. [Do you ever use it without correcting yourself? Do you ever just use it?] Oh, I think that since we had, since we worked together, I think that, more and more, I use it in the right way on the first shot.
- July 26, 2000—Medial outtake stage—Learner is uncertain about extent of usage; still testing hypotheses.  
What they did in Quebec is really remarkable all over the world. That's true. But it *has been*...they just *did* the right thing at the right place at the right moment.
- July 26, 2000—excerpt from a discussion about this form.  
Should I say he *was elected* in, I don't know, in 1998, or since he is still in function, can I say Jean Chretien has been elected? (Explanation of difference *between he has been elected* and he *has been Prime Minister*.) [If you want to say he *has been elected* two times, then you're talking about a repetition, something that has repeated itself. Has he been elected twice?] He *has been elected* twice as Prime Minister, but bad news for Canada is that he *has been elected* seven times as Member of Parliament.
- August 16, 2000—Medial-outtake stage—Variable performance persists.  
I *worked* during one week as a bartender. It *has been* my first failure.  
When the PM *was elected* in 1976.  
*I've been* minister in the 80s.  
Her father *has been* fired. (narration; obligatory context for simple past.)
- September 14/21, 2000—Medial outtake stage—Learner has only one instance of self-correction of present perfect in 70 minutes of recorded speech.  
It *has been*...it *was* a big discussion.

- September 14, 2000—Learner reflection upon reviewing notes from former lesson. He comes up with an interesting hypothesis concerning his use of *has been* when referring to people.

*I've been* MNA in the 80s. *I was MNA* in the 80s. Do you know why I think...do you know why I do that mistake so often? It's just because of the expression: *les has been*. Why don't we say *les was*. *Les has been* [And you think that's the only reason why you do that?] Yes, I think so. [All francophones do that and some of them don't know that expression.] *Les has been?* [Everybody knows that?] I think that it's really popular. I think so. [So that's a French expression? Quebecois?] It's *an expression Québécoise*. *Les has been* is uh...(in French) One can use it interchangeably with *les mon oncles*...oldtimers.

5. Substitution of infinitive for gerund after *before* and *after* reached the final-outtake stage. Example: *before to go*

- February 24, 2000—Preliminary-outtake stage—First instance of misuse. Learner is directed to an exercise in a text.
- March 2, 2000—Learner reflections on reviewing class notes from the previous week.

...before to receive

Before receiving. [Why do you say that so fast?] Before receiving. Because now I know that receiving...after receiving, before receiving, we went walking around the street..uh. I'm more familiar with the fact that after the *before*, the *after* the...are those conjunctives? [Uh, prepositions.] After the preposition, you use the present time, *receiving*. [Have you heard that?] Yes, I remember. I think that when Prime Minister Jean Chretien went in uh...in Europe and that he, we see the Prime Minister depositing flowers to the Unknown Soldier monument, in uh...Paris, or I don't remember where. We see the Prime Minister depositing, and after, I don't know the rest of the news but I remember that once I remarked that they were using, several times in the same sentence *before going* to uh...the Nato meeting in Brussels, the Prime Minister Jean Chretien stopped in Paris. We see him now depositing, I don't know, a tribute to the Unknown Soldier. [And you can remember specifically hearing that?] Uh, but I remember that it was in the news concerning Jean Chretien at that time. I didn't pay attention to...there was several uh -ing in the same news...-ing, -ing, -ing.

- No further instances of misuse in 10½ hours of recorded free speech.



### ***Results of Post-test for M.***

Approximately six weeks after the final session with M., I administered a post-test. The test took the form of a directed conversation, which was recorded. There was approximately one hour and fifteen minutes of recorded discourse. Among other topics of discussion, used as distracters, I asked M. to do certain tasks. These tasks were designed to elicit the five structures that were recorded as outtakes during the study. I have transcribed every positive and negative example of outtake in obligatory contexts from that conversation. Though certain structures were prompted by precise elicitation questions, these forms also appeared spontaneously in the speech of M. during the course of the test. All instances of outtake are recorded below. The following data demonstrate that the results of the outtake process were retained, if not improved upon, during the six-week time lapse between the last lesson and the post-test.

1. Pronunciation of the word probably. (PROBably, not proBABly)

Elicitation question: No specific question

Positive examples: -I don't know why. PROBably it's because...

-PROBably that Nicole had some influence...

Negative examples: No negative examples were recorded.

2. Overuse of do/does/did in simple past form of affirmative statements. (Example: *They did go* instead of *they went*.)

Elicitation questions: How did you first learn English?

How much opportunity did you have to use it in times past?

Tell me about your years in secondary school.

Positive examples: (Due to volume, most examples using the verbs *to be* and *to have* are not recorded below.)

-I learned it mainly by myself.

-I had to improve by myself.

- Finally, we stayed there only three weeks.
- I read (past form) with a dictionary.
- After that, when I went to ...
- Finally, when I went to Sherbrooke University.
- In 1973, I went to ...
- The Loyalists...were not rich people.
- I also accepted a few times...
- Nobody wanted to be a representative of Quebec there.
- I always grabbed any opportunity that I could find.
- My mother always used a few English words.
- Some of her friends came at our place.
- I offered her a small bouquet of flowers.
- I tried to offer her the flowers in English.
- Even if I knew that my English was not very good, I knew  
that there was only one way to develop it.
- I learned a lot with you.
- Your approach was convenient for me.
- Since I was stimulated to do so, it was like ...
- I listened to radio every morning...
- I paid more attention and I had more interest than I ever  
had in my life ...
- I developed some interest to know more, to understand... .
- I began to have some more interest ...
- I came from a rural family and I was used to being with  
my cows, horses, dogs and cats.
- I disliked the food; I disliked the discipline ...
- I said many, many times to my father and mother ...
- Most of the time, I just ate ...
- I knew that I had very good results ...
- All of them thought that I was a very smart young boy.
- I participated many, many groups.

- Finally, I got caught.
- After a while, I understood that ...
- All the other boys...*allaient*...went to the *dépanneur* (the canteen).
- I began to sell my notes.
- We began to *tricher* (to cheat).
- I never had more than two dollars in my pocket.
- Everybody wanted to have as good results ...
- Finally, one of the teachers just looked at the translation ...
- Finally, he just saw that the mistakes were the same ...
- He knew that Yvon and I were good students.
- It created, that kind of delinquency, created a very close relationship between the 30 boys in the class.
- When we were discovered ...
- Yvon and I told the guys ...
- They understood that they were going to flush their exams.
- When the guys understood in the class that we refused to do so, they said we decided ...
- You do not accept that we cheat? Fine. We'll cheat another way. We will steal the exams. So everybody will have the opportunity to cheat again.*
- And we did steal 23 out of 24 exams. (Acceptable use of *emphatic do* in this context.)
- The tactic we used in many cases was the following.
- We decided, all of us, we had a large problem.
- His name was Boisvert; we called him Greenwood.
- I received a call of my girlfriend...
- The director of the college entered the room and told us ...
- I was out of the college and I never came back
- They just tried to break us.
- They really wanted to break us.

- We decided not to accept to be broken.
- We decided to organize a trip to Expo '67.
- They threatened to be put out of the college.
- He lost part of his time during those years.
- ...what I wanted to do at that time was very naive and didn't really make sense.

Negative examples: No negative examples were recorded in this sample.

### 3. Redundancy of past form with *did*. (Example: Did you saw the prince?)

Elicitation question: Tell me about your years in secondary school and find out as much as you can about my years in American high school by asking yes or no questions.

- Positive examples:
- I didn't have great self-confidence.
  - I didn't learn English when I was at the ...
  - My parents did not force me to go to that *seminaire* (religious boarding school)...
  - During many, many weeks, I did not eat at all.
  - I didn't have a penny in my pocket.
  - I didn't do only that ...
  - I didn't have the ten cents I needed.
  - They didn't study at all for many weeks.
  - The guys didn't accept that ...
  - We didn't rob the exam or the thing ...
  - Did you ever cheat?
  - Did you have good results?
  - Did you have boys with you from the first degree up to the twelfth degree?
  - Did you have a lot of hispanophones with you?
  - Did you have many friends?
  - Did you like football?
  - When did you go to university?

-Did your parents have much or little influence on you?

-...and I didn't know who should be the first one to kiss the other.

-I didn't really know what to do, how to begin, how to stop.

Negative examples: -How did you decided not to pursue, not to continue?

-I was very ashamed that I didn't decided to kiss her before.

4. Overuse of present perfect form in contexts that require the simple past. (Example: I have seen a good movie last night.)

Elicitation question: Discuss events in the life of one of your favorite historical figures.

Tell me what you did on your very first date.

Positive examples: *See #1 for the comprehensive list of examples of the correct usage of the unremarkable simple past. Examples below are included here because they most closely resemble contexts in which M. overused the present perfect form during the study.*

-He was born in France.

-He founded Quebec City in 1608, four years after Pierre

-Des Monts founded Acadia in Nova Scotia.

-He had very tough times in the beginning.

-The first contacts between Champlain and the Indians were positive ones.

-He died in Quebec City.

-... to find the place where Champlain was buried.

-Jacques Cartier came many times before.

-He was looking for the route to India.

-He entered in the St. Lawrence River and he came up to Montreal.

-He could not go further.

-He got back to Quebec City.

-He understood very rapidly, very easily ...

- One day, I had some trouble with other pupils
- She told me ...
- She lived in the village and I lived in the country.
- There were ten children in her family.
- Her father...was the guy who invited me to go to the very first meeting of the ...
- One afternoon, I was preparing myself to milk the cows...
- He arrived at home ...
- We went on the border of...
- My brother was walking along the lake...
- She invited me to sit down on the ground.
- I decided to sit down on the ground.
- She kissed me and I kissed her ...

Negative examples: -We have stolen 24 of the final exams. We...uh...we...nous avons volé...we uh.. Have stolen? stealed? [we stole] we stole 23 of the 24 exams ...<sup>19</sup>

5. Substitution of infinitive for gerund after *before* and *after*. (Example: before going, not before to go)

Elicitation question: Describe the process of making your favorite recipe backwards. Start with the last step in the process and then tell me each step you take before it.

Positive examples: -Before putting the eggs in the water, dropping the eggs in the water...  
-Before having, before boiling the water, you ...

Negative examples: No negative examples in this sample.

---

<sup>19</sup> His difficulty here seems to be related to the fact that he has forgotten the form of the simple past of *steal*.

## Chapter 5: Findings

### *Global Assessment*

Despite the decided lack of English input and opportunity for output during the course of this study, there is evidence of *outtake* in M.'s speech. His correction of the pronunciation of the word *probably*, no small feat for Quebec francophones, is one apparent instance of *final-outtake*. He no longer hesitates or stumbles over this word; he seems to use the correct stress pattern automatically. His use of the gerund after *before* and *after* also seems solidly integrated. Evidence from the post-test was overwhelmingly positive for the other three outtakes. Rather than regressing, M. seems to have made progress in the outtake process during the six-week interim between treatment and post-test.

As well as these documented changes in behavior, there is also evidence of *noticing*. In several instances, one of which is recorded above, he remembered the exact news broadcast in which a particular structure that we had discussed was evident to him. Details of the content of the broadcast recorded above were eclipsed by the “-ing, -ing, -ing” thing. Evidence of *self-correction* is also present; the reliability of that self-correction generally increases over time. His reflections portray a learner continually seeking to bring order out of the cacophony that he faces in processing L2 input. He does some *error detection* and some *error etymology*; in short, he is, to an extent, a linguist.

### *Learner as Linguist*

The contribution of insights from learners to L2 acquisition research is not to be underestimated. In discussing the contribution of language learners as linguists, Seliger (1983) concludes that “learners’ verbal reports about acquisition processing ... [o]r comprehension or production processing ... taken at face value” can be “useful for hypothesis generating” (p. 184). Schmidt (1990) boldly states that “we [L2 researchers] have simply not done much research to assess sensitively what learners notice and what they think as they learn second languages. Like behaviorists who assumed that their subjects left their mental faculties outside the laboratory door, we have assumed learner ignorance more often than we have attempted to investigate learner awareness” (p. 150). He further asserts that “it is misleading to assume ignorance when ignorance has not been demonstrated” (1995, p. 40). I would go on to say that, far from learner ignorance in matters of linguistic queries, learner perspicacity of L2 acquisition processes is astonishing. Responding to Schmidt’s observation that there is a paucity of sensitive research on what learners themselves understand of their own learning process, I have included some quotations harvested in the last year from the recordings of spontaneous comments and diary entries of M. and two other learners, G. and R.<sup>20</sup> These quotations are organized under certain assumptions that are based on research discussed earlier in this paper and on my own intuitions as an experienced teacher. The purpose of this section is to proffer hypotheses that can be tested later to affirm their generalizability in L2 learning. Again, researcher comments will be bracketed, and editorial comments will be in parentheses.

---

<sup>20</sup> G. and R. are also adult professionals whom I teach privately. Since recording my students is a regular practice for me, I have documented many learner reflections. I have included some relevant ones here.



**Assumption—Learners do not readily notice linguistic elements that are not crucial to understanding meaning unless those elements are pointed out.**

(In discussing his omission of the particle *to* after *explain*) Oh, yes. I remember very well *explain* because now when I listen to radio...lately, I listen to radio during when I go to work in the car and I hear it (the *to* after *explain*). (M. explains that the word *explain* is very easy to understand. Once he had heard it in discourse, he had no need to focus on the particle *to* which followed. He was more interested in **what** was being explained to whom or by whom.) So if you don't need to understand a word—*to* or *from* or *with*—when you really don't need it to understand the meaning of the subject, you don't pay attention. [Once it's pointed out, why does it become more obvious? So, we talked about it] Now I *hear* it. Now I'm able to...it becomes natural that I introduce the *to* in my ear and in my mouth. You see what I mean? So you remember how difficult it was for me just to pay attention to *her* name and to *her* car. (Previously, the learner overused the masculine pronouns.) I always switched...I did always switch to *his* because, I don't know why. I didn't pay attention. I just wanted to understand the most important message in a sentence, and that's the difference. —M.

I was watching (television) when you called me and there was a person on a soap...in a soap? [either] that was speaking...and for the first time yesterday, I noticed what kind of...what was the tenses of verb that have been used there. I mean that before, before now, I would have listen, I would have watch this program without going as far, I mean, (farther than) my understanding of the sentence. I would more be on the top, on the surface. I would not have time probably because intellectually I don't have time to go as far, if I can say, as what is he saying (beyond what he is saying). —G.

**Assumption—Learners' attention—a somewhat limited commodity--is often taken up with what instructors might, in light of serious IL deficiencies, consider to be linguistic minutiae.**

What's the difference between *toward* and *towards*? [Not much. We just put an *-s* on sometimes to confuse francophones.] I **knew** English people were mad. [We're just seeking revenge for all the *-s*'s you leave off. He go...] He **goes**. [She do...] She **does**. *-M.*

[In the course of the time that you listened to the radio, was there anything that jumped out, anything that crossed your mind, anything that you thought about apart from the content?] Oh, yes. When do we use *nowadays* and *today*? *-M.*

In a restaurant once in New York, the server said, "Are you still working on this?" What kind of level of English is this?...*working*? I would think that *working* on a meal would be more like cooking the meal...so in that person's mind, it means that eating is something difficult? *-G.*

**Assumption—Learners see their own self-correction in a positive light.**

[Do you find yourself correcting yourself while you speak?] Yes, I do it frequently. [Does it frustrate you?] No. No it gives me some satisfaction because I know that I am improving, that I am in an evolving process that improving my English week after week, and I improve or I am improving...Sometimes it frustrates me because I would like to learn faster. But most of the time I see it as a positive sign. I'm in an evolving process. *-M.*

**Assumption—Learners do not consider certain types of error correction to be disruptive.**

It's very comforting for me that you say, that you send me a positive or a negative...[Signal?] Signal? [Or response] response, yeah, 'cause it's quick, so it doesn't take uh it doesn't take, it does not take a lot of time. So I can continue on the same, *sur la même voie* [the same train of thought.] Yes. It doesn't interrupt; the correction is made, whshsh, I continue. *-G.*

**Assumption—Learners are encouraged when they notice structures in authentic speech that were pointed out to them previously.**

I was watching TV and there was a kind of automatic association I was making with the course when I realized...when I noticed that the person who was speaking on TV was saying *has* or *had*. I recognized, listening to her, the lesson you give me, you see. That's what happened yesterday night for me. When she said it, it was *pshew*, it make like that (dramatic hand gesture). –G.

I listen to CBC 88.5 and they said, the guy, the speaker said, "I used to giving my clothes to the Salvation Army...I used...I am [I used to give?] No, no, I am used to giving. I'm used to giving my old clothes. [And you heard it?] I heard it and *ohhh* (exagerrated), I heard something. –M.

**Assumption—Learners profit from the transformation of knowledge between the oral and written modes.**

I feel that this idea of correcting and looking on a paper the errors that I make—naturally, there are a lot—it help me in...because I'm visual. I check on the paper and when I'm speaking—actually, what I'm doing right now with this tape (diary) remembers me (reminds me of) the paper we worked on together. –G.

**Assumption—An aggressive strategy is necessary to remove certain errors from learners' speech.**

But for a person of forty-four years old like I am, having repeat those way of talking, the mistake are there and they are deep and the only way to get rid of them is to work very hard and to repeat a lot the correct way. It's a *mitraille* *tchtchtchtch* [Oh, machine gun.] It's a machine-gun work. [I won't be that militant with you.] –G.

I'm saying it just to *marteler*, to hammer it in my mind. –G.

In some ways you are shaping my English and you are shaping me as an English speaker. All the places where I feel fragile, tenses of verbs and thing like that, it's easier to shape me because I'm more virgin. My mind is more virgin because it doesn't have any automatism and printed security I would say. But when I constantly do the same mistake, I have to fight against that automatism which is based on two things: a very long misuse and a kind of self-sufficiency which is just un... which lies just under the automatism. So you have to destroy me, destroy my self-confidence. *-M.*

I need a density (of practice). Take five or ten minutes to go over something again and again so that it goes in. It's like using 1000 cc's of vitamin C. It's an aggressive strategy. *-M.*

**Assumptions—It is very difficult to attend to content and structure simultaneously.**

**This is often due to the rapidity of authentic first-language discourse.**

I was watching ... when I noticed that the person who was speaking on TV was saying *has* or *had*.... I forgot the... what she was saying and I focused only on *had*. *-G.*

Ah, when I watch TV as example, it's curious that at some moments, there's like a flash in my mind. I think what I'm hearing is not what I'm saying when I make mistake, but it goes so quick that I don't remember the mistake I'm doing. The person who speaks on TV goes on. The subject is different and I have to hear to understand what the person is saying, so it goes very, very quick. But there is like a flash in my mind.<sup>21</sup> And oh, there is something there that I don't say that way and this person say it correctly. *-G.*

Logically, at every moment of your life, you are thinking of one thing, one single thing. As you're saying, you can pass quickly from one single thing, another thing, and come back to the first one, but at each moment, you are just thinking of one thing. It's not like eating a dish in which there are a combination of ingredients. The tongue takes all that together. But intellectually, you are all the time theoretically concentrating on one thing. *-G.*

**Assumption—There is interplay between conscious and subconscious processes in language learning. Both forms of learning contribute to efficient language learning.**

When I see it on the paper it attracts more my intelligence than my...this idea of knowledge. What is the verb? Is this good or not? I know that *do* is *faire* and it's more intellectual on the paper. But when I speak, it's not intellectual. When I hear neither, because I am busy, my mind is busy thinking of what I have to say, uh, and trying to understand what somebody's saying. Somebody's saying or telling? [Saying] It's right. The paper would be intellectual. The voice, the hearing would be more instinctive? [Yes, instinctive.] Instinctive.... Just repeating, without a certain knowledge of comprehension of the errors, would be uh very uncomplete, and maybe one day after 50 years, I would have an English that would become better just practicing, just hearing, just reading that I always did. But if there's not somebody close to me saying, "Hey, my friend, there is something here. You have to see that you used the word *do* when the word you wanted effectively to use was *is*." So those two things, the instinctive area of speaking, listening on one part and the second area that would be more intellectual goes together. The intellectual area, work, uh would be the thing that start or blocks the process of repeating a mistake. To put a brake. To say, "Watch it! You did this mistake here, so you can do some others. Be careful!" [Interesting.] But I don't know what would be the activity of knowledge of another language. What would be though, generally speaking, the comparative importance of the knowledge process, intellectual, and the instinctive process? [Well, let me tell you that linguists are fighting about that at the moment.] –G.

**Assumption—Automaticity and fluency in certain structures are achieved by means of a conscious process. Noticing is an important catalyst in the process. Hypothesis-testing and repetition are procedural steps.**

I notice that they say it the correct way and so the feeling I have is that it would lower the difficulty when will arrive the moment for me to doubt which word should I try, should I use. It lowered, it made smaller

---

<sup>21</sup> I'm tempted to rename *noticing the gap* to *having a flashgap*. The latter term better portrays the lightning quality of these instances of noticing. *Flashgaps* are sudden and momentary. They often occur in the midst of a linguistic storm. They are easily missed.

the range of choice. You understand? And (the) more I will hear, (the) more narrower the choice will be. It will be automatic. –G.

I remember I had a hard time to choose the correct verb, the correct tense after, for instance, *before: before speaking, before eating*. I was using all the time, most of the time, *before to use, before to do this*. And uh I remember that I watched T.V. and I started to realize that they were saying exactly what you were trying to teach me for weeks, and uh, I got used to it. And now, after *before*, that's one of the things at least I remember, that you put an *-ing*, an *-ing* form. So this is an example of what happened. –R.

One of the tricks you need is to speak slowly at first. Between us, I can start to speak slowly. And after, I'll be able to speak faster and then I won't do the mistake. –G.

And the best way to record it forever is to hear it the day, during the following days that I hear it and use it. [And then you don't have to think? How quickly does it become automatic?] It depends. I mean uh, I would say if I use it, hear it or use it four or five times...but it has to be done in the short period of time. Two years later it doesn't mean anything. But if I had the opportunity to hear it or to use it a few days after the lesson... That's what I can describe as the automatization process in my personal mind. –M.

**Assumption—Certain errors are compound errors and therefore are particularly difficult for learners.**

(looking at his mistake *It have happened a few times.*) *It happened* or *it has happened*. And will you repeat again what I have said? [It have happened a few times.] There are two things: the *-s* and *have something*. Two difficult things that I have to conciliate. [They converge in that particular mistake.] Yes, so the difficulty is twice big. It's double. –G.

(explaining why the distinction between *used to do* and *to be used to doing* is so difficult)

When I use *to... to love, to see, to think, to...* I mean, when I use the prefix *to* before a verb, my automatic reflex is to think to the infinitive time of the verb because I do not react to the possibility that uh *smoking* or

*thinking* or *loving* or anything is a noun. I think to the infinitive time (tense) of the verb....I do a translation *mot-à-mot* (word for word): *je suis habitué d'aimer*. (I am used to loving.) *Aimer* is a.i.m..e.r (*Aimer*, to love, is in the infinitive form in French.) So you see that *to* is normally related to an infinitive, *to love*, *to kiss* or, I don't know, *to walk*. I think first. Second, in French, the easy automatic translation is *that je suis habitué à fumer*. (I'm used to smoking.) *Fumer* is f.u.m..e.r. (*Fumer*, to smoke, is in the infinitive form in French.) So you have two reflex that are...You have to go through two automatisms. I'm just trying to explain you to be useful probably where this error comes from. –*M*.

**Assumption—Learners profit more from reviewing their own errors than from studying grammar in general.**

I mean, you correct. I see my errors and, as you told me, that's for sure that those are not the errors of somebody else. Those are mine and I can remember the context where I used it. –*M*.

I feel that you're offering a very personalized service and the way you do that is important...I think that for me it wasn't tedious at all. It was very easy, very useful because I think that you, because you listen to the recordings and you find my, my personal errors, so I think that you are really paying attention at me, paying attention at my difficulties, not the difficulties of others. –*M*.

Because you're not talking in general terms. You're referring to mistakes that I have made and I, most of the time, continue to make week after week. So it helps and I think it facilitates the learning experience, and it tells me at least to remind me (to remember) what mistake I've made...I prefer to do it like this than learn general principles, let's say. –*R*.

**Assumption—Learners have an acute memory of instances of noticing.**

I know that when I listen to the news that uh *during* is not so much used. They said, for example, uh, "The war is...the crisis in the Middle East until now...it has gone on *for* a month and a half. Arafat, Barak and Clinton are in, have been in meeting at White Plains, were in meetings *for* three days." [So you heard that?]

Yes, like that. –*M*.

**Assumption—The negative affective impact of error correction on learners is real but manageable.**

[How much are you discouraged by the fact that I'm correcting you and correcting you and correcting you? Are you discouraged at times?] No. The main effect is that...really my opinion is that ... it's very useful because it focus you on your error. –*M*.

...I have to feel comfortable with you. Otherwise, I will feel to be judged and I'm an adult and I don't want to be judged, you see. –*M*.

I'm disturbed by the fact that you're recording right now. It's curious. [Oh, I wonder why.] It's like when I was in the United States. Uh, you will see on this recording before. I tell you about it. When I feel that somebody really listen and that they're ...they will find errors that they will find—naturally there are some and a lot—that I block, I block. –*G*.

I'm like a child. I'm afraid to make once again mistakes for which I've been already corrected.....I'd like that I catch the first time. [Yeah, well, so would everyone else, but you're not a computer.] –*G*.

***Conclusions***

The quotes from the preceding section are the raw reflections of learners struggling to make sense out of the chaos that surrounds them in the world of their second language. Unlike others, these particular learners were all analytical about their own learning process and well able to express their ideas in English, often using metalinguistic terms. I realize that this is the exception rather than the rule, but I believe that most



learners are somewhat aware of their personal learning process and welcome the opportunity to speak of it to those from whom they can receive informed feedback. In our effort as educators to make communicative aspects of instruction paramount, choosing various relevant, age-related, high-interest topics to engage our students, we may have forgotten that one topic that is very interesting to them is their own language learning? Language learning should not be the *hidden agenda* of TESL instructors; rather, learners should know that teachers are acutely interested in every little language-learning step along the way. To this end, perhaps more tasks inviting learner reflection and eliciting ‘metatalk’ would be appropriate in classrooms.

Error-correction as a technique certainly promotes metatalk, but its value is a function of the manner in which it is done. The *how* and *when* of error-correction are crucial. If it is too subtle or too inconsistent, it is ineffective; if it is blatant and repetitive, it is tedious. If it is not immediate, it loses its contextual relevance; if it is done in real time, it is disruptive. How then should the practitioner proceed?

*Error replay* recommends itself as one effective technique in error correction. Errors are corrected pointedly and consistently. The contextual relevance of the errors is preserved with no interruption of fluency. It provides a context in which questions and comments related to language learning are appropriate. It seems to promote noticing and, in turn, IL development, uptake and automatism.

Error correction, specifically that of PPP errors, can become somewhat of a crusade. Teachers who take up this mission, so to speak, must match the PPP errors in tenacity, prompting students along the continuum of automaticity. Chaudron (1988) advises that teachers “be as consistent and thorough as possible, [following] through with

a correction until the learner evidences understanding of the error problem” (p. 150). They must look for the moment when learners self-correct. Though it appears as a moment of disfluency, it is a sign of progress and the point from which an error can safely be viewed as a mistake. The converse is not true; that is, “the fact that the learner does not make an immediate behavior change cannot be taken as evidence that there is no effect of the form-focused instruction” (Lightbown, 1998, p. 193). There are steps along the continuum that are not readily observable, and teachers must help learners understand this.

Teachers should also be as pervasive as the errors themselves, drawing examples for error replay from oral and written language samples. Spoken errors can be transcribed in writing<sup>22</sup> to add a visual component to the correction process. Written errors can be discussed orally. Lastly, in trying to avoid the petrification of errors, it’s important that teachers not become ‘fossils’ themselves, with only one modus operandi. Error correction should in no way dominate form-focused instruction in L2 classrooms. Neither should form-focused instruction subsume instruction, which in turn should not displace communicative activities. Nevertheless, there is a time and place for error correction.

The necessity of error correction and the merits of *error replay* as a technique notwithstanding, there is the question of feasibility to consider. One limitation of *error replay* is that it is most appropriately used with intermediate to advanced students. Another obvious drawback is that it is labor-intensive for the teacher. I have spent hours upon hours during the last decade reviewing recordings of learner speech, transcribing

---

<sup>22</sup> My suggestion is that learners never really write down or copy errors off a blackboard or acetate themselves; rather, examples of flawed performance should be given them with space to make corrections.

errors and typing feedback sheets for students. In certain teaching environments this effort is feasible; in most it is not.

It was with this practical concern in mind that the idea of computerizing this technique was born. Nagata's study (1995) of consciousness-raising by computers supports the metalinguistic value of computer-assisted language learning (CALL). The "virtue of the computer as a resource for supporting language learning," Nagata maintains, "is its potential for giving students immediate feedback...in written form" that can be reviewed by learners at their own pace (p. 338). The computer is also indefatigable and unaffected by tedium and repetition; it can remove some of the burden of grammar instruction from classroom teachers, freeing them to explore the more engaging elements of teaching.

In the next section, I will describe the program I have created in collaboration with a computer programmer. Our relative roles were clear and distinct. I provided the ideas and content for the program; he provided the technical expertise to bring my ideas to *virtuality*, that is, to reality in cyberspace. The program is called **ErrorBuster**, a name that reflects the aforementioned assumption that without an aggressive strategy for eradication, certain errors will persist ad infinitum.

## Chapter 6: Description of ErrorBuster

### Components

ErrorBuster is an interactive, web-based program. There are three major components: *the database, the teacher program and the student server program.*

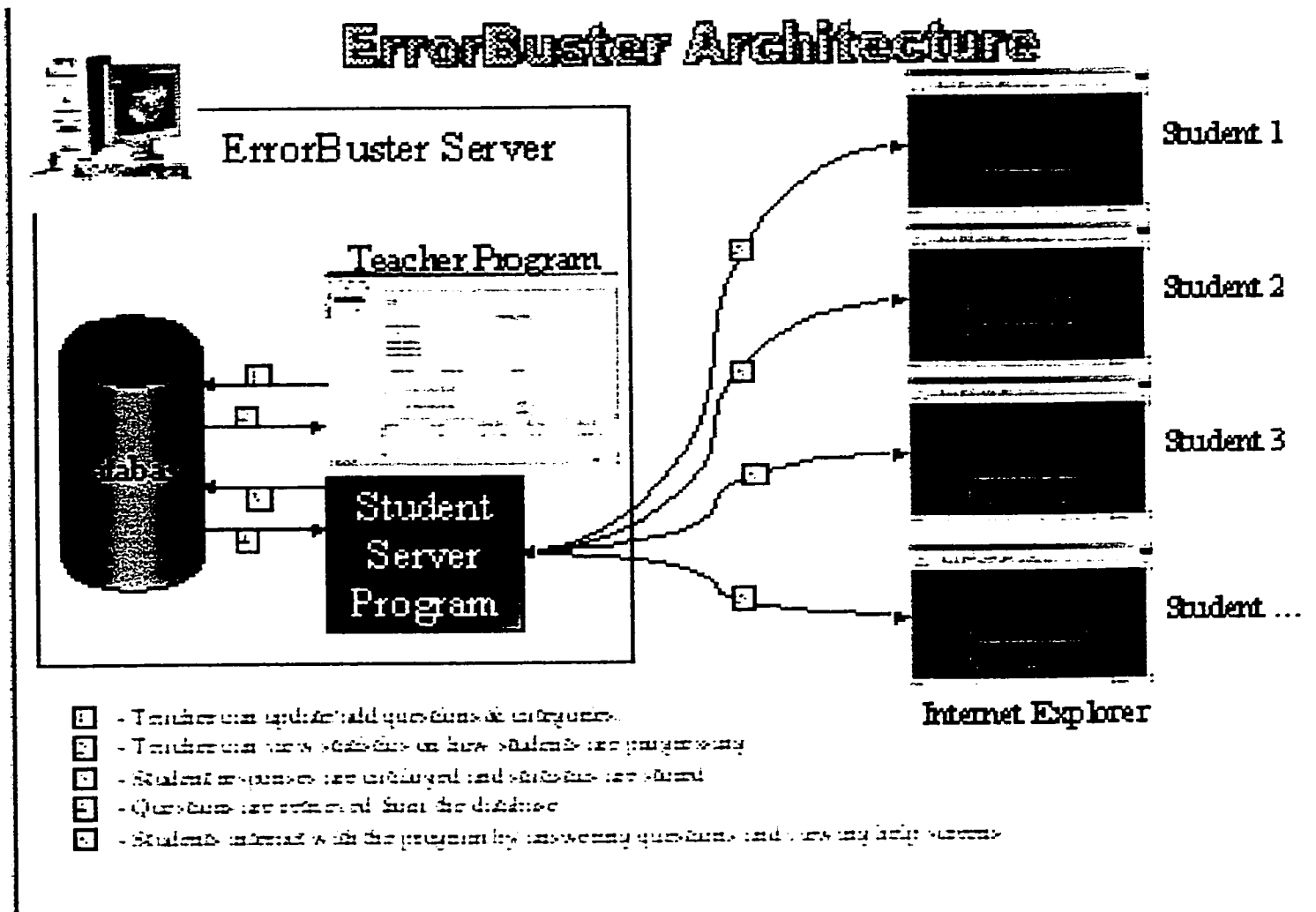


Figure 4 ErrorBuster Architecture

The *database* contains a bank of pre-programmed examples of sentences containing one or two errors.<sup>23</sup> These errors are authentic, typical errors of Quebec francophone speakers of L2 English. They are adapted from an extensive collection of PPP errors that I have amassed through the years. The database also contains various help sites (to be discussed later). It has the capacity to catalogue student responses and store statistics on student progress, statistics that are available to the teacher and individual student alike.

The *teacher component* is an authoring device that can be used by individual instructors to customize lessons for their students. Teachers can add questions and examples drawn from the current work of students, link them to relevant help sites, and create what is called a Key Lesson. Instructors can also review statistics on individual students and on classes. The information available in these statistics includes:

- The number of examples done by each student
- The type of help requested by students
- The errors that were busted (remediated) during the current session and cumulatively
- The length of time students spend correcting each error type

The *student server program* functions in the following manner. Registered users log in to the system (Figure 5) and then choose between two options on the menu: ErrorBuster or Key Lesson (Figure 6).

---

<sup>23</sup> It presents some technological difficulties to have more than one error per example, but I have included two errors in sentences for which the errors are closely linked and in which it would be unnatural to separate them. (Example: I live in Montreal since a long time—both the *present/past perfect* and the *for/since* distinctions are not made. But these two errors are often made in tandem.)

**Figure 5 Login Screen**



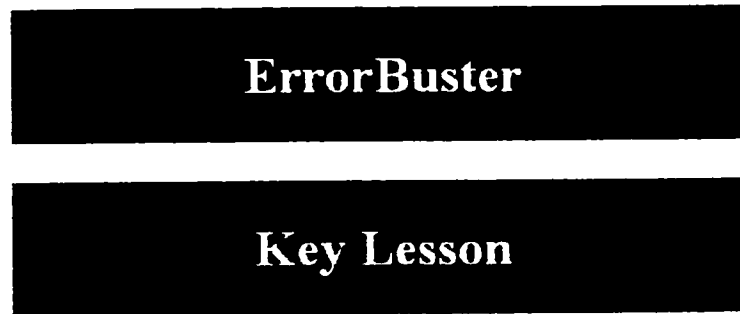
**Login**

User Name:

Password:



Main Menu



**Figure 6 Main Menu Screen**

The ErrorBuster option provides a pre-programmed set of sentences, one at a time, to be corrected. If the user is unable to identify and correct a flawed sentence without aid, he or she has a choice of links to different types of help.

- **Where is the error?** Identifies the location of the error by highlighting the word or words that should be changed
- **What is the error?** Identifies the grammatical type of error
- **Why do I make it?** Provides a brief explanation of the origin of the error
- **How can I fix it?** Refers students to a didactic help site
- **Other examples?** Shows users a concordance of similar examples in correct form
- **Answer please?** Makes the correction for the student

Figure 7 includes screen shots showing a typical example with relevant help sites.

## His negative attitude aggravated the situation.

His negative attitude aggravated the situation.

Submit

<u>WHERE</u> is the error?	<u>WHAT</u> is the error?	<u>WHY</u> do I make it?	<u>HOW</u> can I fix it?	<u>OTHER</u> examples.	<u>ANSWER</u> please?
-------------------------------	------------------------------	-----------------------------	-----------------------------	---------------------------	--------------------------

Figure 7a: A flawed sentence

## His negative attitude aggraved the situation.

His negative attitude aggravated the situation.

Submit

<u>WHERE</u> is the error?	<u>WHAT</u> is the error?	<u>WHY</u> do I make it?	<u>HOW</u> can I fix it?	<u>OTHER</u> examples.	<u>ANSWER</u> please?
-------------------------------	------------------------------	-----------------------------	-----------------------------	---------------------------	--------------------------

Figure 7b: "Where is the error?"



## His negative attitude aggravated the situation.

-ate endings

His negative attitude aggravated the situation.

Submit

<u>WHERE</u> is the error?	<u>WHAT</u> is the error?	<u>WHY</u> do I make it?	<u>HOW</u> can I fix it?	<u>OTHER</u> examples.	<u>ANSWER</u> please?
----------------------------	---------------------------	--------------------------	--------------------------	------------------------	-----------------------

Figure 7c: "What is the error?"

## His negative attitude aggravated the situation.

French verbs ending in -er don't always take -ate in the English form, but this one does.

His negative attitude aggravated the situation.

Submit

<u>WHERE</u> is the error?	<u>WHAT</u> is the error?	<u>WHY</u> do I make it?	<u>HOW</u> can I fix it?	<u>OTHER</u> examples.	<u>ANSWER</u> please?
----------------------------	---------------------------	--------------------------	--------------------------	------------------------	-----------------------

Figure 7d: "Why do I make it?"

## *-ATE Endings*

### [Return to Question]

*In English, there are lots of verbs that end with -ate.  
Most of them are similar to verbs in French that end in -er.  
These verbs usually come to English and French from the same Latin roots.*

*Some don't follow the pattern you are expecting, though, so take a look at the way these verbs end:*

*aggravate(d)  
(NOT \*\*aggrave(d)\*\*)  
as in Her bad attitude*

Figure 7e: "How can I fix it?"

## Concordance of Similar Questions

[Return to Question]

**On New Year's Eve, I was the designated driver.**

**We all need to evolve as individuals.**

**His handicap does not limit his participation in sports.**

**Many people lost their jobs when the company was restructured.**

**Restructuring in companies often causes downsizing.**

**He's determined not to make the same mistake twice.**

Figure 7f: "Other examples?"

## His negative attitude aggravated the situation.

His negative attitude aggravated the situation.

Submit

<u>WHERE</u> is the error?	<u>WHAT</u> is the error?	<u>WHY</u> do I make it?	<u>HOW</u> can I fix it?	<u>OTHER</u> examples.	<u>ANSWER</u> please?
-------------------------------	------------------------------	-----------------------------	-----------------------------	---------------------------	--------------------------

Figure 7g: "Answer please?"

The user, with or without help, tries to correct the sentence by overwriting the flawed portion. The attempt is submitted and is judged correct or incorrect. If correct, the user is given another sentence drawn at random from the databank. If incorrect, the student is returned to the question to try again.

There are several features in the student server program that customize it to the individual student. Firstly, the program adapts to the needs of individual learners by reducing the density of examples of error types that the user demonstrates mastery over. In other words, if a student can correct a certain type of error without referring to any of the help sites three times in a row,<sup>24</sup> then that particular error is considered to be ~~Busted~~—that is, to be at the final outtake stage. Thus, it will appear very infrequently in the random selection of examples. Secondly, the student may start out with a ~~Key Lesson~~. These *Key Lessons* are designed specifically by individual instructors to meet the needs of particular students. Once a *Key Lesson* is complete, the user may quit the program or return to the regular ~~ErrorBuster~~ program.

In either of the two menu options, **ErrorBuster** or **Hey Lesson**, users have the opportunity to identify areas for which they need specific help. If a student believes that a correction he or she makes that is disallowed by the program is correct, or wishes to discuss a certain example with an instructor, he or she may tag it for conferencing later. Finally, at any point in the session, the user may ask to view a personal progress report on that particular session. This report can be printed and contains the following information:

- The number of examples done
- The help sites visited
- The errors that were busted
- Tagged sentences to be discussed in a student-instructor conference

### ***Rationale for the tool***

In exploring each of the three components of **ErrorBuster**, it may be enlightening to understand the rationale behind its conception. Consider this quote of W. J. McBriarty, who in 1935 authored *The French-Canadian's Guide in English Grammar*. In the preface of the text, he writes of himself:

...During the past ten years, he has had exceptional opportunities for observing and correcting hundreds of errors commonly made by French-speaking students, both in composition and in conversation...Remarking that all the students made approximately the same mistakes in compositions on the same subject, he was lead [sic] to use the method of

---

<sup>24</sup> It should be noted, that these three occasions never come up consecutively in the random selection process of the program. This reduces the chance that the user has only a short-term quasi-understanding of the particular form.

collective correction, in addition to a detailed revision of each copy. He made a list of the mistakes, wrote them on the blackboard, explained the error, and then wrote the correct form in the opposite column. In this way, he accumulated, in a few years, several thousands of mistakes common to French-Canadians. (p. vi.)

How well I identify with this educator of 66 years ago. I too have several thousand authentic student errors collected over the course of a decade. The content of the bank of pre-programmed examples in the database is drawn from this collection just as the content of McBriarty's book was drawn from his. He claims that after "putting his plan [of error correction] into execution...he soon remarked considerable progress, both in composition and in conversation." I have noted progress among my students also, and it is in the same spirit that McBriarty penned his guide that I prepare **ErrorBuster**. It is a pedagogical tool with practical benefits.

### ***Description and rationale of Help sites***

Along with the practical aspects of the program, there are theoretical and methodological considerations that underlie the rationale for the types of help sites that I have included in the program. As discussed earlier, Olejedo (1993) notes that learners prefer to have clues and do their own self-correction. As there are many different types of learners, I have cast a wide net in terms of help options. It is my guess that learners, who are generally task-oriented, will opt for a minimum of help, only using the type of

help absolutely necessary to get the job done, that is, to correct the error and go on to the next.

The link **Where is the error?** uses input enhancement, changing font color, to show the location of the error. Jordanais (1995), Leeman (1995) and Long (1998) all discuss the value of input enhancement through textual modifications such as underlining, highlighting, boldfacing and changing the font, color or size of typeface. These techniques, so simple in the computer world, increase the saliency of certain trouble spots, stimulating the learner's visual memory.

**What is the error?** is a link that appeals to the learner who is familiar with grammatical terminology. It identifies the error using terms such as verb, preposition and countable noun. Many learners have a grammatical schema in which they organize language learning. These are the types of clues that Smith (1981) describes as "brief" and "indirect." They give learners a "greater feeling of self-discovery" (p. 160).

On the other hand, **How can I fix it?** provides direct and sometimes lengthy explanations of the errors in question. Again, Smith (1981) echoes my own conviction that "it is notoriously difficult to deny adult learners explicit information about the target language since their intellectual maturity as well as their previous teaching/learning experience makes them cry out for explanations" (p. 159). This type of help site is there for those who want to delve deeper and to be able to make generalizations about certain grammatical points.

**Why do I make it?** appeals to learners who want to understand the origin of an error. I believe that *error etymology* has both an affective impact and an intellectual one on learners. I often tell speakers that they are making a perfectly logical mistake

when they say, “*When I will graduate, I will get a good job.*” It makes perfect sense to use the future tense marker after *when* since they are speaking of the future. This is the way it is done in French and, linguistically speaking, it would probably make more sense to do it that way in English. But sometimes we must suspend our logic to learn another language. This is one case. This error etymology removes some of the self-imposed feelings of defeat that learners have when they make a mistake. “Oh, this is not a function of my incompetence, but of my competence,” they may say. They are free to take up the challenge of being flexible enough to see things differently. Once they are shown why they make certain errors, they often respond in kind, on an intellectual basis, seeking and finding their own examples of error etymology. These insights could prove to be very useful to researchers and teachers.

**Other examples?** links the user to a concordance<sup>25</sup> of correct forms. This helps to meet the learner’s need, as expressed earlier in this paper by one of my students, for a *density* of usage directly following an explanation. It shows the learner the extent to which the rule is generalizable to other contexts. It is also, in a sense, a capsule of concentrated comprehensible input—something like a 1000 cc of Vitamin C.<sup>26</sup>

The last help site option is **Answer please?** This, of course, is the last resort for learners who are utterly perplexed. It is there to keep the user moving along in the program. It is at this point when a learner may tag a particular item to discuss with the instructor. Until such time as a teacher/student conference is possible, the student can proceed to other questions, knowing that this particular item will be dealt with eventually.

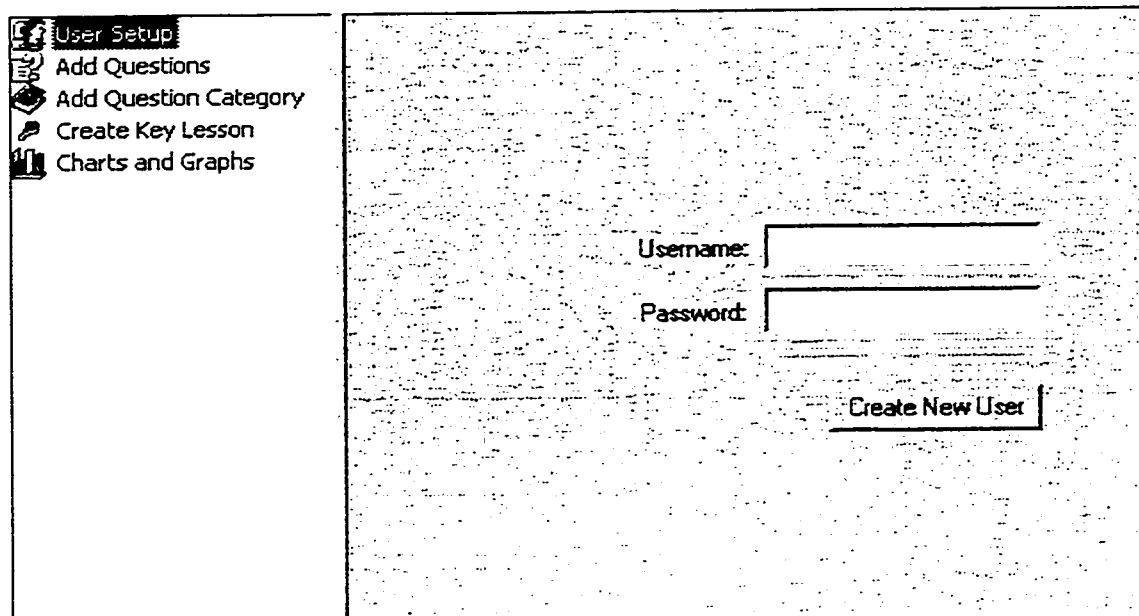
---

<sup>25</sup> The idea for the concordance component is attributable solely to Tom Cobb from the University of Quebec at Montreal. He has done much work in CALL, and it was in consultation with him that I realized the value of this type of help.

This idea of a platform for an ongoing exchange between students and teachers is the rationale behind the *teacher component* of the program. Teachers will have access to records of student progress. They will be able to have the following information on any given student:

- How many examples were looked at during a given session
- What questions were tagged for consultation
- The time taken to correct a given error.
- What errors have been *busted*.<sup>27</sup>

As well as the student-statistics feature, the *teacher component* (Figure 8) has an authoring device. With this device, the program provides the opportunity for teachers to create their own *error replay* sessions.



The screenshot displays the 'Teacher Program' interface. On the left is a vertical sidebar menu with the following items: 'User Setup' (highlighted), 'Add Questions', 'Add Question Category', 'Create Key Lesson', and 'Charts and Graphs'. The main area on the right contains a form for creating a new user, with fields for 'Username:' and 'Password:', and a 'Create New User' button below them.

**Figure 8 Teacher Program**

<sup>26</sup> As described by M.

<sup>27</sup> This would be particularly helpful for testing purposes. Theoretically, any error type that has been *busted* would be fair game for summative testing.



I have found that learners respond more readily to exercises based on their individual problems. Tasks from grammar books are often considered non-integral learning by the student, some form of busywork that has little or no value in the learner's real world. No matter how typical a certain error type is of a learner's speech, if it is not his or her own error, it loses contextual relevance and, concomitantly, significance. When exercises are based on authentic, recent utterances, however, these tasks take on a whole new meaning. How often have I heard students remark, "Oh, I can't say *that*? I say that all the time." I'm almost certain that they have heard the rule before, but they never really apply it until they are correcting themselves. The teacher component gives instructors the opportunity to demonstrate to students that grammatical accuracy is important and that individuals' errors are not being neglected.

The last rationale that is important in this project is the reasoning behind integrating the statistics-gathering component into the program. Data for research purposes in the present study were gathered painstakingly. They are not generalizable. They pose far more questions than they answer. I anticipate that data gathered from users of ~~ErrorBuster~~ will be far more comprehensive and helpful. This program has the potential to provide the following types of information:

- The errors that are the most likely candidates for outtake
- The average number of examples necessary for outtake of a given error type
- The types of help sites preferred by users
- The amount of time spent at each help site
- The overall effectiveness of error correction exercises

## *The State of the Artwork*

The features described in the previous section have all been programmed into **ErrorBuster**, at least in their seed forms; however, the project is far from complete. For the purposes of this thesis, I will present a working prototype. At the time of this writing, there are approximately 175 sentences in the bank of errors, along with the accompanying help sites. The completed program should contain at least fifteen times that number. The rapidity of data entry will increase proportionally with the number of items entered into the databank. This is due to the fact that, at the outset, each entry requires the construction of relevant help sites. As the redundancy of error type increases, the necessity to create help sites will decrease.

The help sites themselves, which are web-based, are also not in their final state. (See Figure 9 for several examples of the thirty-seven web-based help sites constructed so far for the **"How can I fix it?"** option.) I have used a reasonable amount of color, animation and artistry in designing the webpages, but there are many bells and whistles, so to speak, that could be incorporated in the final version. These aesthetic trappings can be added at a later time, perhaps by someone more gifted than I. Another feature on which I will need to collaborate is the translation into French of certain portions of the help sites. There is a language option included in the program whereby users could access the French version of a help site.<sup>28</sup> Again, this feature can be developed at any time.

---

<sup>28</sup> The reasoning behind this feature is to provide a shortcut for learners. Often explanations about linguistic structures become laborious to understand, given the metalinguistic jargon involved. A French translation of explanation would be available for those students who do not have the lexicon to meta-talk in English or for those who do but want to *cut to the chase*, so to speak.

## Present Perfect vs. Simple Past

[Return to Question](#)

Speakers of French, beware!

*I have seen*

does NOT mean the same thing as

*I saw.*

*I have seen* = present perfect verb tense.

*I saw* = simple past tense.

Just a quick explanation of the *present perfect tense*:

**Structure:** It's just like the *passé composé*. Use the verb *to have* + *participle*.

(*I have seen, you have seen, he/she/it has seen, we have seen, they have seen*)

**Note:** *seen* is an irregular participle. Most verbs have regular participles that look the same as the past tense form. (I have loved, he/she/it has loved, etc.)

**Meaning:** It is not at all the same as the *passé composé* in most cases. There are four uses of the present perfect tense.

main

- 1. An action that started in the past and continues to date:**  
She has always worked as an accountant. (*She's still an accountant.*)  
They have used that format since 1972. (*They still use it. It must be good.*)
- 2. An action started in the past but you don't know when:**  
I've seen that sales rep somewhere before. (*He has a face you can't forget.*)  
Through the years, she's hired many grads from Western. (*It's time for a change.*)
- 3. An action that has taken place very recently (*venir de*):**  
The photocopier has broken down again. (*I feel like kicking it.*)  
We have just been awarded the overseas contract. (*Open the champagne!*)
- 4. An action that occurs repeatedly.**  
It's broken down six times in the last four months. (*This is getting on my nerves.*)  
We've used their printing services for three brochures. (*We keep going back.*)

Here are a couple of warnings.

1. Once you situate an event at a precise time in the past (5 years ago, last summer, yesterday, one nano-second ago) **DO NOT USE THE PRESENT PERFECT TENSE!**

~~They~~ <sup>They</sup> have been many good movies lately. (Lately is not precise.)  
(I think here to have)

Figure 9a Present Perfect versus Simple Past (Top only)

# Spelling Demons

[\[Return to Question\]](#)

Be careful of certain words that are not spelled the way you THINK they should be. Here are a few:

apartment (NOT "appartement")

company (NOT "compagny")

committee (NOT "comitee")

community (NOT "communaufy")

customers (NOT "costumers")

damage (NOT "dammage")

department (NOT "departement")

example (NOT "exemple")

guarantee (NOT "garantee")

jurisdiction (NOT "juridiction")

happened (NOT "happenned")

mentioned (NOT "mentionned")

ministry (NOT "ministry")

nevertheless (NOT "never the less")

object (NOT "objet")

professional (NOT "professionnel")

project (NOT "projet")

**Figure 9b Spelling Demons (Top only)**

## When + present

[\[Return to Question\]](#)

We say:           **If I graduate from university, I will get a good job.**

*(This structure is similar in French.)*

We ALSO say:   **When I graduate from university, I will get a good job.**

*(This structure is NOT the same in French.)*

**In the second example, WHEN is used to introduce a less important part of the sentence.  
In sentences like that, do NOT use the word WILL in the part of the sentence starting with WHEN  
EVEN THOUGH THE ACTION IS IN THE FUTURE!**

**Incorrect:           \*\*\*When I will graduate from university, I will get a good job.\*\*\***

**Incorrect:           \*\*\*When I will retire, I'll buy a motorhome and travel.\*\*\***

**Correct:             "When I retire, I'll buy a motorhome and travel.  
Will you come with me when I go?"**

**"When you have a motorhome, give me a call.  
I'll answer your question when I hear from you."**

**Figure 9c When + Present**

***"To Be or Not to be:***

***That is the question?"***

*Shakespeare's Hamlet*

***We can all learn a little English from Shakespeare.***

**NOT and NEVER  
are placed before the infinitive:  
not to be, never to be**

***"Mommy, mommy, tell him **not to hit** me."***

***"But Mommy, I told her **never to touch** my  
stuff."***

***"Children, you know that you are **not to  
fight**."***

***Luc, you are **never to hit** your sister.***

***Annie, you are **not to go** in Luc's room."***

***(to husband)***

***"Dear, remind me **not to have** any more  
children."***

Figure 9d Not to, Never to

watch out

*-er   -est   er   est   er   est*

*the   most*

*more   easier   the most   confident   best*

*the most NOT the more   the most*

**Figure 9e Comparative forms**

DON'T FORGET THE -S

DON'T FORGET THE -S

DON'T FORGET THE -S

**Figure 9f Plurals**



Figure 9g False Friends (Top only)

## False Friends

also known as

*les faux amis*

[\[Return to Question\]](#)

English and *French* share many words.  
Usually, if you don't know the English word you want,  
you can try the *French word* using an English accent, and

*voilà, ça marche.*

The problem is that some words don't mean the same thing in both languages.  
Here's an alphabetical list of some of the false friends that might trick you.  
English/*French* (n=noun; v=verb; adj=adjective)

### **actual/vrai**

**actually/vraiment, en fait**  
**present, current/actuel**  
**presently/actuellement**

actual=real, existing in fact

present=now, current

The actual amount you pay for a rented car is higher than the quoted price.

They say \$23/day; you actually pay \$37/day.

I used to live Laval, but my current home is in Longueuil.

### **advice(n, non-countable)/conseil**

**a piece of advice/un conseil**  
**advise(v)/conseiller**  
**opinion/avis**

advice=counsel, suggestion

She gave me a lot of advice when I was buying my first house.

advise=to counsel, to suggest

Her first piece of advice was to get a pre-approved mortgage.

### **ancient/très vieux très âgé**

**former, old/ancien**

ancient=very old

former=previous

We went to see the ancient ruins in Greece.

As a teacher, I often meet my former students at the mall.

### **arrive(v)/arriver/quelque chose**

**happen(v)/arriver**

**manage to do(v)/arriver à faire**

arrive=to get somewhere

happen=to occur

Too bad that you arrived late for the first act of the play.

What happened to you? Why did you arrive late?

## Simple Present (*I hear*)

OR

## Present Perfect (*I have heard*)

[\[Return to Question\]](#)

Which of the following forms is correct?

1 It's the first time I hear this.

2 It's the first time I have heard this.

Option 2 is correct.

There are some contexts in which the **present perfect tense** (*I have heard*) is used in English while the **simple present tense** (*I hear*) is used in French.

Here are some examples:

When talking about something that one has experienced:

This is the first time I **have (ever) been** to Vancouver.

It's the second opportunity I've **had** to visit their firm.

It **has been** a big success for the last 5 years.

When comparing experiences.

That was the best sushi I've **eaten** in North America.

His most recent book is the worst one **he's written**.

This is the biggest success we've **had** since we opened our doors.

**Hint:** *When you're not sure of a structure,*

1) *think about the mistakes that an anglophone makes when using the same structure in French.*

2) *Translate that mistake word for word into English.*

3) *Usually, you will have perfect English.*

**Example:**

Incorrect French construction: \*\*\**C'est la première fois que j'ai entendu ça.*\*\*\*

Translation: **This is the first time (that) I have heard that.**

yea! perfect English!

### Figure 9h Simple Present or Present Perfect

## VERB + PREPOSITION + GERUND

[Return to Question]

Some verbs in English have a certain way of doing things.

*They are followed by certain prepositions and then by nouns or other verb-like words (gerunds), which end in -ing.*

There is no particular logic to these verbs.  
You just have to learn them.

Here's a list to help you.

**be fond of \_\_\_\_\_ing:** He's fond of eating nuts.  
(also) He's fond of nuts.

**decide on \_\_\_\_\_ing:** We finally decided on going to the theatre.  
(also) We finally decided to go to the theatre.

**insist on \_\_\_\_\_ing:** The little guy insisted on tying his own shoe laces.

**persist in \_\_\_\_\_ing:** If you persist in crying, you'll have to go to your room.

**prevent from \_\_\_\_\_ing:** We hope to prevent this from happening again.

Figure 9i Verbs + Prepositions + Gerund

## Verbs + Prepositions

[\[Return to Question\]](#)

There are many verbs in English that go together with little words like *in, to, on* and *of*. It's almost impossible to guess which little word goes with a certain verb because they are often different from those used in French.

*This is a small gift from the language gods  
to teach you tolerance for other ways of thinking.*

Meanwhile, here's a list to help you remember what goes with what.

account for.....They can't account for \$250. It's gone!  
agree to/with.....I can't agree with you more! I agree to your proposal.  
allow for.....We must allow time for preparation.  
amount to.....How much does the bill amount to?  
apply for.....I'm thinking of applying for a job in the government.  
ask for/about.....I'm going to ask for a raise in salary.  
ask of someone something.....She asked her boss for a raise.  
apologize for.....There's no need to apologize for someone else's actions.  
approve of.....I do not approve of his actions.  
believe in.....Do you believe in love after love?  
concentrate on.....I find it hard to concentrate on my studies when it's sunny.  
conform to.....The building does not conform to industry standards.  
consent to.....I will never consent to a merger.

Figure 9j Verbs + Prepositions

## ***Recommendations***

A project such as this, like most work, expands to the time allotted. Given more time, much more could be done with it. The most compelling task at hand is to enter the volumes of raw data currently available into the ~~ErrorBuster~~ program. After that, the program needs to be tested on real learners. Surely, there will be technological bugs to work out. There will also be content-based modifications to make. This fine-tuning is time-consuming but doable.

Beyond perfecting the program for TESL classroom use, there are other possibilities. One would be to duplicate the program in French, creating the flip-side tool for anglophones learning French. Another would be to use the tool for research purposes. As an instructor, I would love to know what faulty structures I can most easily correct, what form of instruction is preferred by learners, what error etymology insights my learners have, and to what extent written error correction is effective in changing oral interaction behavior. The use of data gathered from ~~ErrorBuster~~ could shed light on these issues.

More important than these issues, however, is my underlying conviction that part of the mission statement of language teachers must be to GIVE ATTENTION TO ATTENTION. That is, instructors should dedicate some teaching energy and time to the cognitive/conscious/explicit/attentive learning of their students. They should endeavor to satisfy the desire on the part of students for error correction. Those teachers who sow seeds of accuracy will surely reap a harvest of increased accuracy among their students. If deliberate attention to accuracy teaching is not given by teachers, students are left to the caprices of linguistic birds carrying seeds from distant linguistic parts, i.e., students

are left to discover errant utterances by chance. Though this method is natural, it is certainly not efficient. In the words of G.,

*Just repeating, without a certain knowledge of comprehension of the errors, would be uh very uncomplete, and maybe one day after 50 years, I would have an English that would become better just practicing, just hearing, just reading that I always did.*

It is true that not all seeds will fall on fertile soil. When I speak of error correction, I am targeting certain errors (PPP errors) with students at certain levels (intermediate to advanced). Even then, some learners will continue to err in some structures in some contexts. But how much greater will their chance for improvement be if they are regularly challenged to correct their errors.

I would like to close with a personal anecdote that has driven me along this path. As an undergraduate, I did a teaching internship in a large French comprehensive high school in the Montreal area. Upon receiving a set of short compositions written by the students in the grade nine level, I was told by my co-operating teacher to mark them. “Don’t mark all the errors, just make short comments about the content.” Something compelled me at that time to go beyond those directives. I did indeed mark flagrant errors and give short explanations on each submission. When I gave them back to the students, one girl remarked in French, “Wow, you’ve marked my mistakes. Thanks. I like English class; we talk a lot, but we never know what we’re doing wrong. I don’t know if I’m saying things right or not.”

This student’s sentiment of being unsure about correctness has been echoed countless times in countless ways by my students through the years. It would be great if I could tell them with assurance, “Don’t worry; your instincts will guide you to the correct

form. Just continue to listen to and speak English.” But I’m not convinced; neither, I suggest, would they be. To return to Sophocles:

The ideal condition would be, I admit,  
That men should be right by instinct;  
But since we are all likely to go astray,  
The reasonable thing is to learn  
From those who can teach.

## References

- Aljaafreh, A., & Lantolf, J.P. (1994). Negative feedback as regulation and second language learning in the zone of proximal development. *The Modern Language Journal*, 78, 465-483.
- Allwright, R. (1975). Problems in the study of teacher's treatment of learner error. In M. Burt & H. Dulay (Eds.), *New directions in second language learning, teaching, and bilingual education* (pp.96-109). Washington, DC: TESOL.
- Brown, H.C. (1987). *Principles of language learning and teaching*. Englewood Cliffs, New Jersey: Prentice-Hall.
- Caroll, S., Swain, M., & Roberge, Y. (1992). The role of feedback in adult second language acquisition: Error correction and morphological generalizations. *Applied Psycholinguistics*, 13, 173-198.
- Chaudron, C. (1985). Intake: On models and methods for discovering learners' processing of input. *Studies in Second Language Acquisition*, 7, 1-14.
- Chaudron, C. (1988). *Second language classrooms: Research on teaching and learning*. Cambridge: Cambridge University Press.
- Chenoweth, N.A., Day, R.R., Chun, A.E. & Luppescu, S. (1983). Attitudes and preferences of ESL students to error correction. *Studies in Second Language Acquisition*, 6 (1), 79-87.
- Chun, A.E., Day, R.R., Chenoweth, N.A. & Luppescu, S. (1982). Errors, interaction, and correction: A study of native-nonnative conversations. *TESOL Quarterly*, 16, 537-547.
- Cohen, A.D., & Robbins, M. (1976). Toward assessing interlanguage performance: The relationship between selected errors, learner' characteristics, and learners' explanations. *Language Learning*, 26, 45-67.
- Dekeyser, R.M. (1993). The effect of error correction on L2 grammar knowledge and oral proficiency. *The Modern Language Journal*, 77, 501-14.
- Dekeyser, R. M. (1998). Beyond focus on form: Cognitive perspectives on learning and practicing second language grammar. In C. Doughty & J. Williams (Eds.), *Focus on form in classroom second language acquisition* (pp. 501-513). Cambridge: Cambridge University Press.



- Doughty, C., & Varela, E. (1998). Communicative focus on form. In C. Doughty & J. Williams (Eds.), *Focus on form in classroom second language acquisition*. Cambridge: Cambridge University Press.
- Doughty, C., & Williams, J. (Eds.) (1998). *Focus on form in classroom second language acquisition*. Cambridge: Cambridge University Press.
- Ellis, R. (1997). *Second language acquisition research and language teaching*. Oxford: Oxford University Press.
- Fanselow, J.F. (1977). The treatment of error in oral work. *Foreign Language Annals*, 10, 583-93.
- Fotos, S. (1993). Consciousness raising and noticing through focus on form: Grammar task performance versus formal instruction. *Applied Linguistics*, 14 (4), 385-407.
- Gatbonton, E., & Segalowitz, N. (1988). Creative automatization: Principles for promoting fluency within a communicative framework. *TESOL Quarterly*, 22, 473-491.
- George, H.V. (1969). *Common errors in language learning: Insights from English*. Rowley, MA: Newbury House Publishers.
- Harley, B. (1994). Appealing to consciousness in the L2 classroom. In J.H. Hulstijn & R. Schmidt (Eds.), *Consciousness in second language learning*. *AILA Review*, 11, 57-68.
- Hendrickson, J.M. (1978). Error correction in foreign language teaching: Recent theory, research, and practice. *Modern Language Journal*, 62, 387-397.
- Hulstijn, J.H. (1995). Not all grammar rules are equal: Giving grammar instruction its proper place in foreign language teaching. In R. Schmidt (Ed.), *Attention and awareness in foreign language learning*. Technical Report #9, 359-386. Honolulu, Hawai'i: University of Hawai'i, Second Language Teaching & Curriculum Center.
- Huot, D. (1995). Observer l'attention: Quelques résultats d'une étude de cas. In R. Schmidt (Ed.), *Attention and awareness in foreign language learning*. Technical Report #9, 85-126. Honolulu, Hawai'i: University of Hawai'i, Second Language Teaching & Curriculum Center.
- Izumi, S., Bigelow, M., Fujiwara, M., & Fearnow, S. (1999). Testing the output hypothesis: Effects of output on noticing and second language acquisition. *Studies in Second Language Acquisition*, 21, 421-452.
- Johnson, K. (1988). Mistake correction. *ELT Journal*, 42, 89-96.

- Jordens, P. (1996). Input and instruction in second language acquisition. In M. de Gruyter (Ed.), *Investigating second language acquisition* (pp. 425-449). Berlin: SOLA.
- Jourdenais, R., Mitsuhiro, O., Stauffer, S., Boyson, B. & Doughty, C. (1995). Does textual enhancement promote noticing? A think-aloud protocol analysis. In R. Schmidt (Ed.), *Attention and awareness in foreign language learning*. Technical Report #9, 183-216. Honolulu, Hawai'i: University of Hawai'i, Second Language Teaching & Curriculum Center.
- Kidd, R. (1992). Teaching ESL grammar through dictation. *TESL Canada Journal* 10, 49-61.
- Larsen-Freeman, D. (1985). State of the art on input in second language acquisition. In M. Gass & C. Madden (Eds.), *Input in second language acquisition*. Rowley, MA: Newbury House Publishers.
- Larsen-Freeman, D. & Long, M.H. (1991). *An introduction to second language acquisition research*. London: Longman.
- Leeman, J., Arteagoitia, I., Fridman, B., & Doughty, C. (1995). Integrating attention to form with meaning: Focus on form in content-based Spanish instruction. In R. Schmidt (Ed.), *Attention and awareness in foreign language learning*. Technical Report #9, 217-258. Honolulu, Hawai'i: University of Hawai'i, Second Language Teaching & Curriculum Center.
- Lennon, P. (1991). Error elimination and error fossilisation: A study of an advanced learner in the L2 community. *I.T.L.* 93-94, 129-151.
- Leow, R.P. (1997). Attention, awareness, and foreign language behavior. *Language Learning* 47, 467-505.
- Lightbown, P.M. (1985). Great expectations: Second-language acquisition research and classroom teaching. *Applied Linguistics*, 6, 173-186.
- Lightbown, P.M. (1998). The importance of timing in focus on form. In C. Doughty & J. Williams (Eds.), *Focus on form in classroom second language acquisition*. Cambridge: Cambridge University Press.
- Lightbown, P.M., & d'Anglejan, A. (1985). Some input considerations for word order in French L1 and L2 acquisition. In M. Gass & C. Madden (Eds.), *Input in second language acquisition*. Rowley, Massachusetts: Newbury House Publishers, Inc.

- Lightbown, P.M., & Spada, N. (1990). Focus-on-form and corrective feedback in communicative language teaching. *Studies in Second Language Acquisition*, 12, 429-448.
- Littlewood, W. (1984). *Foreign and second language learning: Language acquisition and its implications for the classroom*. Cambridge: Cambridge University Press.
- Long, M. (1991). Focus on form: A design feature in language teaching methodology. In K. De Bot, R. Ginsberg & C. Kramsch (Eds.), *Foreign language research in cross-cultural perspective*. Philadelphia, PA: J. Benjamin.
- Long, M., & Robinson, P. (1998). Focus on form: Theory, research, and practice. In C. Doughty & J. Williams (Eds.), *Focus on form in classroom second language acquisition*. Cambridge: Cambridge University Press.
- Lyster, R., & Ranta, L. (1997). Corrective feedback and learner uptake: Negotiation of form in communicative classrooms. *Studies in Second Language Acquisition*, 19, 37-66.
- McBriarty, W.J. (1935). *The French-Canadian's guide in English grammar*. Québec, QC: Éditions Pedagogia.
- McLaughlin, B. (1990). Restructuring. *Applied Linguistics*, 11, 113-127.
- McLaughlin, B., Rossman, T., & McLeod, B. (1984). Second language learning: An information-processing perspective. *Language Learning*, 33, 135-158.
- Nagata, N. (1995). A study of consciousness-raising by computer: The effect of metalinguistic feedback on second language learning. *Foreign Language Annals*, 28, 337-347.
- Nunan, D. (1995). Closing the gap between learning and instruction. *TESOL Quarterly*, 29, 133-158.
- Olejedo, J.A. (1993). Error correction in ESL: Learners' preferences. *TESL Canada Journal*, 10, 71-89.
- Palmeira, W.K. (1995). A study of uptake by learners of Hawaiian. In R. Schmidt (Ed.), *Attention and awareness in foreign language learning*. Technical Report #9, 127-161. Honolulu, Hawai'i: University of Hawai'i, Second Language Teaching & Curriculum Center.
- Pica, T. (1994). Questions from the language classroom: Research perspectives. *TESOL Quarterly*, 28, 49-79.

- Roberts, M.A. (1995). Awareness and the efficacy of error correction. In R. Schmidt (Ed.), *Attention and awareness in foreign language learning*. Technical Report #9, 163-180. Honolulu, Hawai'i: University of Hawai'i, Second Language Teaching & Curriculum Center.
- Rogers, M. (1981). A reappraisal of the notion of carelessness in L2 production. *British Journal of Language Teaching*, 19, 73-77.
- Rutherford, W., & Sharwood Smith, M. (1985). Consciousness-raising and universal grammar. *Applied Linguistics* 6, 275-82.
- Schachter, J. (1991). Corrective feedback in historical perspective. *Second Language Research*, 7, 89-102.
- Schmidt, R.W. (1990). The role of consciousness in second language learning. *Applied Linguistics*, 11, 129-158.
- Schmidt, R.W. (1993). Awareness and second language acquisition. *Annual Review of Applied Linguistics*, 13, 206-226.
- Schmidt, R.W. (Ed.). (1995). *Attention and awareness in foreign language learning* (Technical Report No. 9, 217-258). Honolulu, Hawai'i: University of Hawai'i, Second Language Teaching & Curriculum Center.
- Schmidt, R., & Frota, S. (1986). Developing basic conversational ability in a second language: A case study of an adult learner of Portuguese. In R. R. Day (Ed.), *Talking to learn: Conversation in second language acquisition* (pp.237-322). Rowley, MA: Newbury House.
- Seliger, H.W. (1983). The language learner as linguist: Of metaphors and realities. *Applied Linguistics*, 4, 179-181.
- Selinker, L. (1972). Interlanguage. *International Review of Applied Linguistics*, 10, 209-231.
- Sharwood Smith, M. (1981). Consciousness-raising and the second language learner. *Applied Linguistics*, 11, 159-168.
- Sharwood Smith, M. (1985). From input to intake: On argumentation in second language acquisition. In M. Gass & C. Madden (Eds.), *Input in second language acquisition*. Rowley, MA: Newbury House .
- Sharwood Smith, M. (1991). Speaking to many minds: On the relevance of different types of language information for the L2 learner. *Second Language Research*, 7, 118-132.

- Swain, M. (1985). Communicative competence: Some roles of comprehensible input and comprehensible output in its development. In M. Gass & C. Madden (Eds.), *Input in second language acquisition*. Rowley, MA: Newbury House .
- Swain, M. (1998). Focus on form through conscious reflection. In C. Doughty & J. Williams (Eds.), *Focus on form in classroom second language acquisition*. Cambridge: Cambridge University Press.
- Tomasello, M. & Herron, C. (1989). Feedback for language transfer errors: The garden path technique. *Studies in Second Language Acquisition*, 11, 385-395.
- Van Lier, L. (1996). *Interaction in the language curriculum: Awareness, autonomy and authenticity*. London: Longman.
- VanPatten, B. (1990). Attending to form and content in the input: An experiment in consciousness. *Studies in Second Language Acquisition*, 12, 287-301.
- White, J. (1998). Getting the learners' attention: A typographical input enhancement study. In C. Doughty & J. Williams (Eds.), *Focus on form in classroom second language acquisition*. Cambridge: Cambridge University Press.