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Abstract: This study explored the emerging corrective feedback (CF) practices of a group of 18 pre-service English as a second language (ESL) teachers. Serving as tutors to a group of 61 high school ESL learners during a school semester, the pre-service teachers provided CF on texts written by the learners and exchanged via e-mail. The authors analyzed the types of CF they used and the types of errors they chose to focus on, along with the factors that explained their choices. Quantitative analyses of the frequency distribution of CF types relative to error types and qualitative analyses of data collected through journals and interviews confirmed that, similar to their in-service colleagues, pre-service teachers overused direct corrections at the expense of more indirect CF strategies. Drawing on the challenges faced by the pre-service teachers, the authors highlight the importance of implementing such opportunities for pre-service teachers to engage with and reflect on their emerging CF practices.

Keywords: L2 teacher training, teacher feedback practices, written corrective feedback

Résumé : Cette étude visait à documenter l'émergence des pratiques de rétroaction corrective (RC) de 18 futurs enseignants d'ALS. Ces derniers ont assumé le rôle de tuteurs auprès de 61 élèves du secondaire auxquels ils ont fourni de la RC sur des textes écrits par les élèves et échangés par la voie du courriel pendant un trimestre scolaire. Les stratégies de RC utilizées par les tuteurs, ainsi que les catégories d'erreurs auxquelles ils ont porté attention, ont été recensées, de même que les facteurs qui ont motivé leurs décisions. Des analyses quantitatives de la distribution de fréquence des stratégies de RC utilizées en lien avec les catégories d'erreurs, ainsi que des analyses qualitatives des données recueillies par le biais de journaux de bord et d'entrevues ont confirmé qu'à l'instar de leurs collègues en exercice, les tuteurs ont eu recours à des rectifications beaucoup plus fréquemment qu'à des stratégies de correction incitative. À la lumière des défis rencontrés par les tuteurs, la conclusion souligne l'importance d'engager les futurs enseignants dans des activités d'action et de réflexion sur leurs pratiques émergentes à l'égard de la RC.

Mots clés : formation des maîtres en langue seconde, pratiques des enseignants, rétroaction corrective à l'écrit

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Although researchers have been, and are still, debating the role of written corrective feedback (CF) in second language (L2) learning (e.g., see the "conversation" among Bitchener, 2008; Bruton, 2009; Chandler, 2004, 2009; Ferris, 1999, 2004; and Truscott, 1996, 2009) and its value for either short- or long-term improvement in learners' accuracy, teacher feedback studies have consistently shown that L2 teachers do provide written CF to their language learners. These studies have also indicated that, irrespective of research pointing to the positive effects of one CF type or another or the prescriptions of the curriculum, L2 teachers rely overwhelmingly on direct correction when providing CF on writing to their learners.

Written CF in L2 classrooms

In writing, *CF on form* is concerned with any incorrect grammatical or lexical use of the target language. It is distinguished from *feedback on content*, which refers to any comment, suggestion, question, or request for clarification, elaboration, or information provided by the teacher that pertains to the ideas, organization, style, and rhetorical structure of the text (Hyland & Hyland, 2006). The CF strategy whereby teachers actually provide the correct form or structure is referred to as the *direct correction* strategy; *indirect corrections*, however, are strategies that teachers use to indicate that an error has been made without providing the correct form (Ellis, 2009).

In the epilogue to a special issue of *Studies in Second Language Acquisition* edited by Sheen and Lyster (2010) on the role of oral and written CF in L2 acquisition, Ellis (2010) referred to the interest in CF as "intense" (p. 335), given the amount of descriptive and experimental research that has investigated and continues to investigate its effects on improving learners' accuracy in their L2. Much less research, however, has investigated how teachers respond to their students' writing and what justifies their pedagogical choices.

In addition, most of the research on CF, as well as studies of teacher feedback, has been conducted in tertiary education settings. Recently, however, some studies have extended the foci of teacher feedback research to examine L2 teachers' CF practices in the context of regular classroom settings at the high school level (e.g., Furneaux, Paran, & Fairfax, 2007; Lee, 2004, 2008b). Similar to research conducted in other contexts (e.g., Ferris, 2006; Montgomery & Baker, 2007), these studies found that L2 teachers rely overwhelmingly on direct corrections and that they are likely to correct errors comprehensively rather than selectively. Lee (2004) reported that more than half the errors identified by secondary school English as a foreign language (EFL) teachers were corrected directly, and the only other feedback strategy used was

location of errors with codes (indirect). In a subsequent study, Lee (2008b) investigated the error correction practices of Cantonese-speaking secondary school EFL teachers who were asked to submit five or six texts on which they had provided feedback that was consistent with their usual responding behaviour. Findings indicated again that direct correction techniques were used more than 70% of the time. Furneaux et al. (2007), who examined the feedback practices of English as a second language (ESL) teachers in secondary schools from five countries, also found that teachers responded to learner errors mostly through direct corrections. The teachers in that study corrected the same essay, and Furneaux et al. analyzed their comments in terms of the reader role they assumed as well as the target of their feedback. The role that occurred significantly more than others was that of provider (direct corrections), and the second role most often assumed by teachers was that of initiator, that is, providing information but withholding the correct form (i.e., indirect corrections). As to the focus of feedback, both Lee (2008b) and Furneaux et al. found that teachers responded mostly to grammar errors and lexical choices. However, because they did not examine the relationship between error type and feedback type, whether the teachers' feedback behavior might have been influenced by the type of error is not known. In a study with university instructors, Ferris (2006) looked at that interrelation and observed that what she termed "treatable" errors (verb tense, verb form, subject–verb agreement, articles, pronouns, spelling) received indirect corrections nearly 59% of the time, whereas the instructors responded to "untreatable" errors (word choice, idiom, sentence structure) with direct feedback in more than 65% of the cases.

Although the results have been conflicting, advice found in published research on CF has generally pointed to the use of strategies that involve learners in cognitive problem solving, an activity hypothesized to lead to acquisition (Aljaafreh & Lantolf, 1994, Gass & Selinker, 2001). However, as Ferris (2010) observed, much of this research on feedback has not taken into consideration the reality faced by many L2 teachers in terms of the demands on the time and energy they can devote to providing CF. Research on teacher cognition, however, has indicated that extrinsic factors such as the instructional structure prevalent in the school, the pressure of conforming to an imposed model, the learners' reaction to different approaches, and the complexities of classroom life determine the pedagogical practices that teachers adopt in the classroom (e.g., Burgess & Etherington, 2002; Fang, 1996; Farrell & Lim, 2005; Lee, 2008a).

We designed this study to explore what is at the root of L2 teachers' CF behaviour by investigating whether pre-service high school ESL

teachers, who do not yet face the same institutional constraints as their in-service peers, would also manifest a preference for direct corrections and, if they did, what factors would be invoked to explain their decisions. Furthermore, we extend the understanding of these issues through an examination of the CF practices of pre-service L2 teachers working with adolescent learners for whom ESL instruction is a required course, not a choice – an instructional context that has largely been ignored in previous studies. As noted by Furneaux et al. (2007), however, secondary school ESL teachers have other concerns than their counterparts in tertiary-level contexts, and their practices might be "quite strikingly different" (p. 91).

Our focus on pre-service teacher education stems from our experience as teacher educators and our mutual concern for maximizing opportunities for student teachers to develop practical pedagogical knowledge. We build on suggestions by Barkhuizen and Borg (2010), who identified the concept of space as a common thread running through language teacher education: "space to reflect, to practice, to confer and to exercise autonomy" and argued that such space entails "freedom from contextual constraints, which gives teachers the opportunity to develop their pedagogical knowledge" (p. 238). In this study, our aim was to create a space for pre-service teachers to exercise their autonomy as a means of developing practical pedagogical knowledge through problem solving and tutoring undertaken in connection with a pre-service course (see also Busch, 2010; Morton & Gray, 2010).

In a similar vein, Vásquez and Harvey (2010) recently investigated whether students enrolled in a university-level second language acquisition (SLA) course, using a combination of prospective and practicing teachers, would change their views concerning CF after participating in a partial replication of Lyster and Ranta's (1997) study. In small groups, they videotaped a group member who was an L2 teacher, transcribed and coded the interactional moves, and wrote reflective journal entries. Initially, teachers expressed concern that CF entailed very complicated decisions and raised many questions about its appropriateness, frequency, and effectiveness and how it might directly affect students' self-esteem and motivation in a negative manner. By the end of the study, however, "their preoccupation with learner affect appeared to decrease" (p. 437) as they became more aware of other variables associated with CF, which included the relationship between error type and CF type as well as the differences between CF moves that supply learners with correct responses versus those that do not. Although our concern in this study was with written rather than oral CF, similar to Vásquez and Harvey, we are interested in the emerging instructional practices of pre-service ESL teachers acting as tutors to

ESL learners (see Johnson, 1994), specifically with regard to types of written CF and the latter's relationship with error types. We believe that this study will provide teacher educators with valuable information and contribute to identifying new avenues for the training and development of future L2 teachers.

Method

The goal of this study, which was part of a larger investigation examining the corrective feedback beliefs and practices of future ESL teachers (Guénette, 2010), was to identify the different CF strategies used by pre-service L2 teachers in reaction to learners' errors in their written work and explore whether the type of error committed by learners would dictate, to a certain extent, the CF strategy, as shown in previous research (Ferris, 2006). We focus specifically on the results obtained from the analyses of the texts written by ESL learners and corrected by the pre-service teachers.

The three research questions that this article addresses were:

1. What types of CF do pre-service ESL teachers use to correct L2 learners' written errors?
2. Is there a relationship between the types of CF they use and the types of errors they believe they are correcting?
3. What factors influence pre-service ESL teachers' CF patterns?

Context

This study took place with pre-service ESL teachers and Grade 9 ESL students in Québec. In Québec, where the official language is French, ESL is often considered more similar to EFL than ESL contexts (Lightbown & Spada, 1994). Many ESL students do not have opportunities to actually use English outside of the ESL classroom because they have easy and direct access to the French language through family, friends, media, and other institutions that cross public, commercial, and cultural domains.

Participants

The participants for this study were one group (n = 18) of pre-service ESL teachers (the tutors) and two groups (n = 61) of ESL students (the tutees).

Tutors

The tutors were in their fifth semester (third year) of a four-year undergraduate program in TESL at a francophone university in Québec. The group consisted of 13 women and five men. The majority were

native French speakers with an excellent command of English and, in many cases, knowledge of a third language. All tutors, except one, had attended high school in Québec, and the majority reported that although the ESL program at the time was based on the communicative approach, their ESL class had a strong grammar focus. Most tutors also had some teaching experience (doing short-term replacement or supply teaching). The tutors had already taken several courses in ESL teaching methodology, and they were familiar with the curriculum and the different textbooks in use at the high school level, as well as what ESL learners at that level were expected to know. No courses in the TESL program deal specifically with CF, but that topic was addressed in a course called Teaching Grammar to ESL Learners in which most tutors were registered while this study was unfolding.

Tutees

The tutees were two groups of Grade 9 francophone ESL students registered in an International Education Program that covers the entire five years of the high school curriculum. Although the ESL program's main focus is the meaning of the message, teachers are reminded that learners should become aware of errors in form that impede the comprehension of their message and learn to gradually notice and correct their errors more autonomously (Gouvernement du Québec, 2007).

The target in the previous years had the development of oral communication skills; however, by the end of that year, learners were expected to show an advanced understanding of language conventions, and they were evaluated partly on their accurate use of vocabulary, grammar, and mechanics. Groups in Grade 9 were therefore chosen because they were at an intermediate level in terms of their proficiency in English but had not yet achieved the linguistic accuracy expected of them at the end of their secondary program.

The project

We conducted this collaboration project in the context of an undergraduate teacher preparation course for an internship at the secondary level. Because the objective of the course is to prepare future practitioners for the real world, requirements always include practical activities that can provide a bridge between theory and practice, such as monitoring or tutoring ESL learners in various aspects of their learning.

Before the project began, the tutors were told by their instructor that the objective was for them to help learners improve their L2 accuracy in writing. At the time, the program did not prescribe the language repertoire to be imparted in the ESL classroom but stated that

learners should "pay attention to the formulation of the message when writing" (Gouvernement du Québec, 2007, p. 33). In line with this perspective, the tutors were given no indication of which linguistic features to target or what types of CF to provide but were told to adapt their feedback to their tutees' proficiency level. They were provided with a list of different CF techniques and reminded of what they had learned about secondary language acquisition in previous courses. Although the focus was on accuracy, the tutors were encouraged to provide feedback on content and to include in their reply positive comments and questions to establish a relationship with their tutees and motivate them to keep on writing.

For the ESL teacher in the secondary school, participation in this project was a means of meeting one of the program's stated outcomes in regard to the development of writing competency and enhancement of learners' motivation by providing them with an opportunity to write for a real audience. Because the mentors and learners could not meet face-to-face as a result of distance and conflicting schedules, e-mail correspondence was chosen as the exchange mode. Some studies with L2 learners have shown that the use of e-mail can reduce anxiety and increase motivation (e.g., González-Bueno & Pérez, 2000). Even though the learners know that they are writing for academic purposes, they are strongly motivated by the novelty of using the computer to write to a real person and by the excitement of receiving quick replies (Kupelian, 2001). For practical and pedagogical reasons, the ESL teacher decided that the learners would use their class time to write to their mentor. The mentors, however, could reply to their learners' messages from home, on their own time and at their own pace.

In their first message to the tutees, the tutors introduced themselves, explained the objective of the project in their own words, and invited the tutees to reply. The following is an example of an introductory message:

> I am really excited to be working with you for the next few months. I want you to know that I'll be there to guide you with your English and help you improve your writing abilities. I will do my best to give you comments and suggestions in order to improve your texts. Don't hesitate to ask me questions concerning all of your English matters. I hope that we will enjoy working together and I also believe that we'll both learn a lot from this project. Please send me an e-mail (in English!!!) and tell me what are your interests, your goals and what you would like to improve during our project. (Victor)

After this initial introduction, tutors started providing CF on form and comments on content, as well as personal replies. As can be seen

from the following excerpt, tutors provided positive feedback and reacted personally to what their tutees were writing. In his previous text, the tutee had written about the possibility of going on a student exchange in France:

> Good work! I like the way you developed your text. It is well written and you even wrote a contraction form of "I would" with "I'd." . . . Be careful with enumerations. You should separate your ideas in order to fit them in smaller sentences. This way, you will make fewer mistakes.
>
> A student exchange in France would be awesome. I wish I could see the Champs-Elysées filled with strollers. I could play soccer every day since it's the French's favourite sport. I would certainly go there if my host family would accept that I play guitar in my room. (Étienne)

Data collection and coding

The main source of data was the correspondence exchanged between tutors and tutees, namely, the tutees' original texts and the tutors' corrections. Throughout the project, the tutors kept a journal documenting their reflections and the factors influencing their decisions in regard to CF and, at the beginning of the following semester, we conducted individual semi-structured interviews to clarify or elaborate on some of the issues addressed in the journals and to discuss the challenges associated with the provision of CF. We used data collected through the journals and interviews to substantiate and explain the quantitative outcomes.

Corrected texts

The tutees' texts, which were written in English and e-mailed to the tutors, and the tutors' replies – the original texts written by the tutees with corrections, comments, and suggestions – were collected every second week for the duration of a school term (approximately 12 weeks). The tutees went to the computer lab once every nine days, for a 75-minute period, to write a text on a topic either of their choice or suggested by their teacher or simply to continue the conversation with their tutor that was sparked in previous messages. Tutees e-mailed their text to the tutors, who then corrected and returned it with the corrections and comments before the tutees' next visit to the lab. Although the teacher did not collect the tutees' original texts, she ensured that they had been sent to the tutors. She also strongly encouraged the tutees to revise their texts according to the tutor's comments and produce a corrected version.

The tutor–tutee pairing was done alphabetically. Because there were 18 tutors and 61 students, seven tutors had four partners and 11 had three; the average number of texts corrected by each tutor was 15. The distribution between the tutors who corrected three texts (four tutors), four texts (six tutors), or five texts (four tutors) per tutee was almost equal, with one tutor who corrected six. The project took place in a real high school setting, so many environmental and human variables could not be controlled, such as absenteeism on the days the tutees were scheduled to write their text. Although the tutees were asked to write messages that contained at least 200 words, they did not all follow that suggestion. As a result, because the pairing between tutors and tutees was done randomly, some tutors corresponded with very verbose tutees, and others were paired with tutees of few words – strictly by chance. Therefore, neither the number of texts corrected nor the number of words was equivalent across tutors.

As a result of some technical problems with saving their tutees' texts, three tutors were excluded from the analysis. In the end, we coded and analyzed 238 texts written by 52 tutees and corrected by 15 tutors. All the errors identified and corrected by the tutors were coded twice: once for error type and once for CF type. The first step of this procedure was to categorize the sentence-level errors (errors of form) detected by the tutors. The second step was to identify the CF strategies and techniques used to flag those errors. We present the protocols established for that purpose next.

Error identification protocol

We developed a list of potential error types by drawing on existing taxonomies (e.g., Ferris; 2006, Kroll, 1990; Lee, 2004; Polio, 1997) and used it as a point of departure to categorize the errors flagged by the tutors.

All errors highlighted by the tutors were coded as the tutors had interpreted them. For example, infinitives (i.e., the base form of the verb, as in "It's hard for me for remember") were coded by different tutors as prepositional, lexical, or verb errors. Because one of the objectives of the study was to examine whether the tutors adapted their type of CF to the category of error they perceived, we categorized the errors identified by the tutors as they had interpreted them. After an initial review of the 2,506 errors flagged by the tutors, we integrated the error categories that contained fewer than 50 occurrences into other appropriate categories (e.g., the categories *L1 transfer* and *word translated from French* were collapsed under the heading *L1 use* because tutors invariably marked them as "French"). Box 1 illustrates the final list of error types used to code learner data in this study.

Box 1: Error types

1. Determiners
2. Mechanics (punctuation, capitalization)
3. Style
4. First language use
5. Noun endings (singular/plural)
6. Prepositions
7. Spelling
8. Sentence structure
9. Agreement (subject/verb, noun/adjective, determiner/noun)
10. Verbs (verb forms and auxiliaries)
11. Word choice
12. Word order
13. Missing word

CF identification protocol

The CF strategies used by the tutors were direct and indirect coded or uncoded corrections. Because the exchanges in this project took place through e-mail and the texts were computerized, not all uncoded CF techniques normally used in giving feedback on writing, such as circling an error, for example, were feasible. As a result, the tutors made use of other techniques, such as highlighting, strikethrough, double strikethrough, or different colours for different error categories. Tutors also used the Track Changes function available in Microsoft Word to provide comments, corrections, and suggestions to their tutees. Every time the tutors provided CF, the word or phrase highlighted through one of the various aforementioned techniques was used as the unit of analysis.

We coded all instances in which the correct form was provided, either by means of a reformulation or by being more explicitly accompanied by a signal that something was wrong (e.g., a word was crossed out or the correct word was inserted above the wrong word), but not accompanied by comments as *direct correction without comments.* When direct corrections were accompanied by comments or metalinguistic explanations (e.g., "You use *would* when [. . .] I think you wanted to use *will*"), we coded them as *direct correction with comments.* This category also included comments framed as questions that provided the correct form, as well as indications of which form to use without actually writing it, as in the following example cited by Hendrickson (1980, p. 218): "She finds her watch inside the drawer." In this case, the teacher had underlined "finds" and written "use past tense" just under it.

We coded indirect corrections according to the technique used by the tutors to attract the tutee's attention. When the tutor simply

Box 2: Corrective feedback types

- Clarification requests (CR)
- Indirect corrections:
  - ➢ Error identification uncoded (ICU)
  - ➢ Error identification coded (ICC)

  Error identification with comments (ICw/c)
- Direct corrections:
  - ➢ Error correction without comments (DC)
  - ➢ Error correction with comments (DCw/c)

flagged the error, without providing the correct form and without adding comments, we coded it as *indirect uncoded correction.* When the error flagged was accompanied by an error code or with the type of error clearly identified, we coded it as *indirect coded correction.* When the correct form was not given, but metalinguistic comments, suggestions, or questions were provided next to the error or at the bottom of the text, we coded these as *indirect correction with comments.* However, if the comment was explicit, as in the example mentioned earlier (i.e., "use past tense"), then we coded it as a direct correction. Clarification requests became a category of their own. When the tutors asked questions and it was evident from the context that they were genuinely puzzled by what the tutee meant, we coded those occurrences as *clarification requests.* The six different CF types used for coding data in this study are outlined in Box 2.

We established an inter-rater procedure to validate the list of error categories and to ensure consistency and reliability in coding the CF types. The second rater was a native speaker of English and a doctoral student in L2 education. The first author and the second rater coded 25% of the texts together (n = 60) and then coded an additional 30 texts separately, reaching a 93% level of agreement in coding the error category, as identified by the tutor and the CF strategy used. The first author then proceeded to code the remaining texts independently.

Journal and interviews

The tutors were required to write four journal entries and submit them at the end of the collaboration project. These entries addressed the following issues: communication with the tutees and their motivation, error analysis and identification, tutees' reaction to feedback, and general comments about their experience. Individual semi-structured interviews were conducted after the project had ended to elaborate on some of the comments made in the journal entries, as well as to discuss the tutors' CF practices and the factors that influenced their decisions in this regard. These interviews were audiotaped and conducted

in the tutors' language of choice (French or English). We then coded and analyzed data using ATLAS.ti (ATLAS.ti Scientific Software Development GmbH, Berlin, Germany), a software program designed for qualitative analysis. Analyses were first conducted for each tutor individually. Then, in an attempt to look for broader generalizations, we identified and categorized common themes according to their relevance to the major issues addressed in the study.

Results

Quantitative results

To answer our first research question, the percentage distribution of CF types used by the tutors to correct their tutees' written errors appears in Figure 1. Of 2,506 errors, 1,492 (60%) were flagged through direct corrections and 275 (11%) through direct corrections with comments; 426 (17%) were flagged through indirect coded correction and 179 (7%) through indirect corrections with comments. Only 74 (3%) were flagged through clarification requests and 60 (2%) through indirect uncoded comments. Thus, four CF types were used to flag 95% of all the errors addressed by the tutors, with a strong preference for direct corrections.

In response to our second research question, Table 1 displays the frequency distribution of errors flagged by the tutors across the 13 error types. Three types of error (spelling, verbs, and word choice) accounted for 53% of all errors flagged by the tutors. Other types of

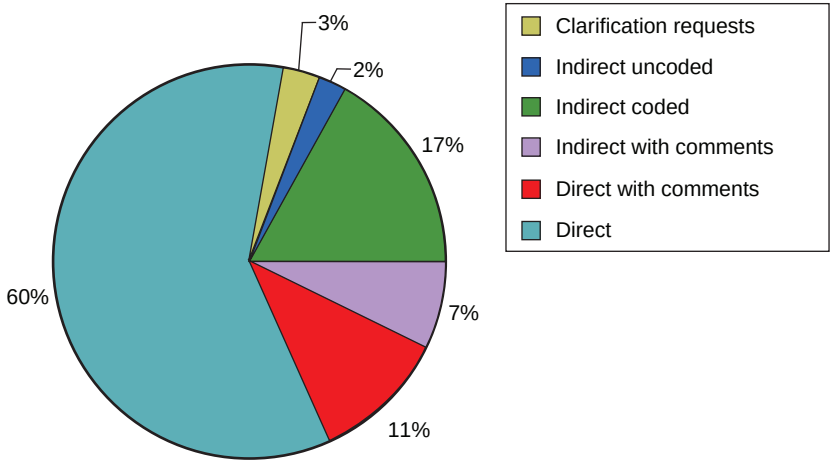

Figure 1: Percentage distribution of preferred CF types
CF = corrective feedback

Table 1: Frequency distribution of errors (N = 2,372) flagged by the tutors across error types

Error type	Number
Spelling	449
Verbs	440
Word choice	440
Prepositions	198
Sentence structure	180
Mechanics	173
Determiners	117
Agreement	117
Noun endings (singular/plural)	116
Missing words	94
Word order	64
Style	64
First language use	54

error that were often flagged by the tutors were prepositions, sentence structure, and mechanics (punctuation, capitalization, etc.), accounting for 22% of the errors detected. The remaining quarter (25%) were distributed among the other seven error types.

Owing to their low frequency relative to other CF types, we excluded clarification requests and indirect uncoded corrections, which accounted for only 5% of the CF used by the tutors, from the statistical analysis, which was done using SAS software, version 9.2 (SAS Institute, Cary, NC, USA). We used a chi-square test to investigate the association between CF types (n = 4) and error types (n = 13) using a 4 × 13 contingency table (see Table 2). Results revealed a significant association between CF types and error types, $\chi^2(36) = 327.7$, $p < .001$.

We conducted post-hoc analysis of residuals to determine which cells in the contingency table contributed the most to the significant association between CF type and error type. We computed standardized Pearson residuals, which are standardized to have asymptotic variance equal to 1, as recommended by Haberman (1973, as cited in Beasley & Schumacker, 1995). They are displayed in Table 3. We used the Sidak method, following Beasley and Schumacker, to control for Type I errors (viz., the family-wise error rate) to a level of $\alpha = .05$ in a contingency table with 52 cells. This led to an adjusted $\alpha = .001$, which, when converted to the unit normal table, gave a two-tailed critical value of $z = 3.29$. Therefore, we considered standardized Pearson residuals with absolute values larger than 3.29 significant at the family-wise error rate of $\alpha = .05$. Significant residuals indicate which combinations of CF types and error types tended to occur more or less than expected by chance.

Table 2: Contingency table of corrective feedback types and error types

Error type	Direct correction	Direct with comments	Indirect coded	Indirect with comments	Total
Spelling	198	36	180	15	429
Verbs	241	63	71	53	428
Word choice	267	64	52	22	405
Prepositions	138	13	35	7	193
Sentence structure	117	11	5	10	143
Mechanics	119	20	13	12	164
Determiners	83	12	4	18	117
Agreement	74	17	19	4	114
Singular/plural	74	14	9	16	113
Missing words	63	7	14	7	91
Style	53	5	0	6	64
Word order	45	7	8	4	64
First language use	20	6	16	5	47
Total	1,492	275	426	179	2,372

Table 3: Standardized residuals

Error type	Direct correction	Direct with comments	Indirectcoded	Indirect with comments
Spelling	−7.89*	−2.27	14.34*	−3.67*
Verbs	−3.13	2.23	−0.82	4.23*
Word choice	1.37	2.90	−2.95	−1.74
Prepositions	2.57	−2.20	0.06	−2.13
Sentence structure	4.82*	−1.50	−4.65*	−0.24
Mechanics	2.65	0.25	−3.47*	−0.10
Determiners	1.84	−0.46	−4.20*	3.32*
Agreement	0.45	1.13	−0.37	−1.66
Singular/plural	0.58	0.27	−2.84	2.75
Missing words	1.27	−1.19	−0.65	0.07
Style	3.34*	−0.96	−3.79*	0.57
Word order	1.24	−0.17	−1.16	−0.39
First language use	−2.92	0.25	2.90	0.82

* Statistically significant at the adjusted alpha level of .05

The analysis of discrepancies between observed and expected values revealed the following patterns. First, direct corrections were used significantly more to flag errors in sentence structure and style and significantly less to flag errors in spelling. Second, indirect coded corrections were used significantly more to flag spelling errors and significantly less to flag errors in sentence structure, mechanics, determiners, and style. Third, indirect corrections with comments were used significantly more to flag errors in verbs and determiners and significantly less to flag errors in spelling.

Qualitative results

Data collected through the journals and interviews enabled us to answer our third research question, which sought to identify the factors influencing the observed CF patterns. As reported in Guénette (2010), although the tutors' prior language learning experience was not homogeneous, they all reported that their high school teacher had indeed corrected their errors. In addition, even if they were not convinced that CF was efficient, they still believed that teachers should correct students' grammatical errors. We now report on the issues that affected (1) their choice of CF strategy, (2) the linguistic targets of their CF, and (3) the challenges they encountered in providing CF. These issues are outlined in Table 4 and elaborated on in the following subsections.

Choice of CF strategy

As we have shown, descriptive and inferential analyses of the group's CF behaviour revealed that 71% of the errors detected by the tutors were corrected through the use of direct correction strategies. Analysis of their individual profiles confirmed that most tutors favoured direct corrections, although they also used indirect corrections some of the time. Drawing on the aforementioned roles identified by Furneaux et al. (2007), six tutors reported using only (or mostly) direct corrections (i.e., providers), eight tutors recounted having used both strategies (i.e., provider-initiators), and one reported being an exclusive user of indirect corrections (i.e., initiator). One reason invoked by some tutors to explain their recourse to direct corrections was the

Table 4: Issues addressed by the tutors in their journals and interviews

Topic	Issues
Correction pattern: direct or indirect	Links between feedback and instruction
	Providing models
	Proficiency levels
	Category of error
	Providing suggestions when unsure of meaning
Focus of feedback	Recurrent errors
	Errors that led to a communication breakdown
	Basic errors
	Errors that resulted from a lack of attention
	Errors that annoyed the tutors
	First language transfer errors
Challenges	Perceived proficiency level
	Errors difficult to correct/explain
	Motivation of the learner
	Fear of making mistakes
	Time constraints

necessity to provide models that learners could reproduce in their subsequent writing. The tutors who accompanied their corrections with metalinguistic explanations reported that they did so in the hope that learners would understand their error and therefore not repeat it. The only tutor who used indirect corrections exclusively was convinced that the tutees would not take the time to read long explanations but that those who were really committed to improving their English would invest whatever time and effort was necessary to self-correct. As for the least used CF strategy, indirect uncoded corrections, most tutors did not consider it useful, believing that tutees could not be expected to repair their errors without guidance.

Linguistic targets of CF

Although determining the factors influencing pre-service ESL teachers' CF patterns was not specifically a research question, an interesting finding related to the tutors' choice of selective or comprehensive corrections. With the exception of four tutors who reported correcting comprehensively, all favoured a selective correction process, based either on their own judgment of the gravity or prevalence of the error (Chan, 2010) or on the tutees' perceived proficiency level. Most tutors (9 of 15) reported paying special attention to spelling errors. They also reported focusing on verb tenses, subject–verb agreement, errors pertaining to L1 use, word choice, and prepositions. Errors in mechanics (capitalization and punctuation), mentioned by only three tutors, were actually corrected much more frequently by all tutors except two. Tutors also mentioned flagging errors that were recurrent, that resulted in communication breakdown, or that annoyed them. They reacted to errors that they felt were common in the production of francophone learners of English or that they believed would be easy for the tutees to self-correct. Finally, tutors indicated that CF should be provided on linguistic features that had been the target of instruction, yet they also remarked that errors left unattended would send the wrong message to the tutees because they would think that what they had written was linguistically correct. In addition, although most tutors adopted a selective stance, they were nevertheless concerned about possible fossilization of non-corrected errors.

Challenges

As mentioned in the introduction, we were specifically interested in the emerging practices of pre-service teachers and the challenges they faced. As we show, however, some of these challenges are similar to what seasoned ESL teachers experience on a daily basis in their classrooms, a fact illustrating the inherent complexity of providing CF.

One of the greatest concerns expressed by the tutors was adapting their CF to different proficiency levels. In general, the tutors reported having difficulty with less proficient tutees, not only in terms of what to correct but also in terms of how to provide simple explanations for complex grammatical features. The tutors also considered it difficult to isolate exactly which feature to target to help the tutees improve. With more advanced tutees who made fewer mistakes, the tutors felt that they could correct more errors (if not all) through direct corrections. Another challenge faced by the tutors was their fear of making mistakes in diagnosing the error, of not understanding what the tutees meant, or of not providing accurate grammatical explanations.

Motivation was a factor of which the tutors were acutely aware, not only their tutees' but theirs as well. They feared that overwhelming their tutees with red ink would discourage them from even trying to improve their accuracy, and some tutors attributed that fear to their own experience as language learners; yet, they still felt that CF was essential. The following excerpt from the interviews illustrates this apparent contradiction:

> I remember my teachers were very, very strict with grammar and very strict with orthographical mistakes. It was "no spelling errors allowed," and in the end it helped us more than anything [. . .] And I didn't find that it allowed me room to breathe, I was just correcting because when I saw the red pen I knew I had to use my dictionary. I was panic struck every time [. . .], but in the end my dictations and my essays, my teachers were like Wow! So I find that feedback is a crucial element. (Odette)

Several tutors also mentioned time constraints as a determining factor in their choice of CF strategies. Providing direct corrections was considered less time consuming and easier than trying to adapt the CF to the tutees' perceived proficiency level. In addition, several tutors mentioned feeling frustrated by and powerless with tutees who continued making errors that had been previously flagged or explained.

Finally, tutors also commented on the challenge of corresponding with their tutees through e-mail. As some tutors reported, the challenge was to provide crystal clear corrections or explanations. The absence of face-to-face communication affected their correction pattern because they tended to provide more metalinguistic information to make sure tutees understood their corrections. However, some tutors saw the absence of face-to-face communication as an advantage. Charles stated that, thanks to the type of questions he was able to ask about the tutees' texts, he actually got to know them "better than students who have sat in my classroom."

Discussion

With the first two research questions, we sought to identify and quantify strategies used by pre-service ESL teachers to provide CF on writing to L2 learners and to determine the extent to which their CF strategies were associated with specific error types. We address each of these two questions in turn while integrating results from the qualitative analyses that sought to answer the third research question regarding the factors influencing the observed patterns.

Research question 1: choice of CF types

Results showed that more than 70% of all errors flagged by the tutors were treated through direct corrections. These findings corroborate the results of recent investigations into teacher feedback. For example, direct correction accounted for more than 70% of the CF used by the L2 teachers observed by Lee (2004), and more than half of the errors flagged by the teachers in Furneaux et al. (2007) were done so through direct correction. Ferris (2006) also found that teachers used direct correction frequently even though they had been specifically asked to use indirect correction.

One conclusion that can be drawn from the results of previous studies as well as this study is that, irrespective of the context (second or foreign language teaching, age and proficiency level of the learners, geographical location, programs and curricula), in-service and pre-service teachers alike adopt similar CF practices. Our results also suggest that, as previously shown by research on teacher cognition, teachers' prior learning experience and perceptions of the role of CF are instrumental in determining their pedagogical practices, irrespective of what is learned in teacher training courses (Borg, 2003). As previously mentioned, during the semester in which this study took place, most tutors were registered in a grammar class in which they were strongly encouraged to bring their learners to self-correct, to do selective corrections, and to avoid overcorrecting. Only one tutor, however, actually followed these recommendations and used indirect corrections only. Even faced with a lack of apparent improvement observed in their tutees, most tutors chose direct corrections rather than drawing on alternative CF strategies to encourage the tutees to self-correct.

The recourse to direct corrections can be seen as a way for teachers to ensure that their students benefit from the CF provided because it provides a model of what is accurate in the L2. With indirect coded corrections, for example, the teacher must be careful to identify exactly which type of error was made to use the proper error code. If the code

is inaccurate, it defeats the purpose of helping the learner to self-correct. Indirect uncoded corrections, however, demand that, over and above being able to self-correct, the learner must also be proficient enough to detect the nature of the error. In both cases (indirect coded and indirect uncoded corrections), the tutors in our study reported that if learners are unaware of their errors, or cannot detect them, precious learning time is wasted. Difficulty in diagnosing an error and, hence, explaining it in simple terms so that tutees can self-correct, also represented an obstacle for the tutors and led them to prefer direct corrections. As noted by Chan (2010), "ESL teachers need to have a good understanding of the cognitive and psycholinguistic mechanisms at work in learners' learning process in order to help them overcome their second language problems" (p. 296).

Research question 2: choice of CF types in relation to error types

With the second research question, we examined whether the choice of CF strategy depended on error type. Overall, across all error types, the tutors used direct corrections more than other CF types, either with (11%) or without (60%) comments.

As several tutors mentioned in their interviews and journals, their goal was to adapt their CF to the tutees' perceived proficiency level. They directly corrected what they felt was difficult for the tutees to self-correct or too challenging for them to explain, and they used indirect correction strategies for what they considered basic errors or errors that they perceived as resulting from a lack of attention.

Another factor, however, might explain the tutors' CF behaviour. Research on CF has suggested that some types of error may be more amenable to CF than others. Although Truscott (2001) did not espouse the view that CF is effective, he nevertheless proposed two criteria for evaluating the correctability of different error types. One is the criterion of simplicity, which implies classifying items into one of two categories. The other is the criterion of discreteness, whereby an item is not inherently attached to a system but can easily be identified and applied in other contexts, such as lexical items that refer to simple concepts. According to these principles, some article uses, such as the choice between *a* and *an*, prepositions that are always associated (or not) with other words, and simple lexical or spelling errors could theoretically be considered correctable items, whereas inflectional morphology, verb forms, and syntax would not. Ferris (1999), who maintained that error correction is effective if certain conditions are met, classified verb forms and tenses, spelling, and subject–verb agreement as treatable items and sentence structure, idioms, and lexical items as untreatable because there is no set rules for learners to

consult. Research so far has considered the distinction between treatable and untreatable errors mostly in terms of its usefulness for learners by helping teachers to establish which types of error would prove to be better candidates for CF treatment. Yet, our results suggest that this distinction could also be useful in understanding the CF practices of pre-service teachers and the challenges they face. Our post-hoc analysis of significant associations suggests that, in fact, the tutors' perceptions regarding the types of errors that they, as teachers, could treat effectively through corrections or explanations, were one of the underlying criteria for their choice of CF. Direct corrections were used to flag errors in sentence structure and style – both untreatable categories that were also found to lead to direct corrections by Ferris (2006). However, errors in spelling and determiners generated indirect corrections significantly more than expected. Arguably, in the case of determiners such as *a* or *an,* the tutors could explain the rule easily. As for spelling errors, which were the most frequently targeted error type, the tutors believed that they resulted from a lack of attention on the part of the tutees and, consequently, should have been relatively easy for them to self-correct.

In the case of verbs, because this error category was very broad (i.e., including every error related to verbs in either form or function), it was statistically impossible to tease apart which features were targeted by direct or indirect corrections. Further examination of the corpus, however, revealed that simple verb tense errors (i.e., those errors that could be easily coded or explained or that satisfied the criteria of simplicity, such as the use of the auxiliaries *be* or *have*) were often treated with indirect corrections, whereas errors with modal verbs and perfect or progressive forms were more often treated with direct corrections, without explanations.

Consistent with the findings of earlier research (Ferris, 2006), it appears that tutors gave explanations or used indirect corrections when the errors were relatively easy for them to explain and they could provide simple rules, that is, when the errors were treatable (Ferris, 1999) or met the criteria of simplicity or discreteness (Truscott, 2001). In contrast, when tutors were faced with more complex stylistic or structural features and felt unsure of their ability to provide adequate metalinguistic explanations, they opted for direct corrections even though they were aware that this might not have been the best option for their tutees.

Conclusion

This study revealed that a group of pre-service ESL teachers in the context of secondary education in Québec relied mostly on direct

correction strategies when providing CF on writing to L2 learners. Despite some limitations, namely the duration of the project (only one semester) and the fact that, although the tutors were familiar with the ESL curriculum, they were unaware of the specific instructional objectives of the tutees' L2 classes during the study, findings corroborate the results of teacher feedback research conducted in recent years with in-service teachers. Therefore, although the study was context specific in ways that need to be taken into account before generalizing its findings, it appears that providing CF is intrinsically challenging for L2 teachers, irrespective of their training, experience, geographical location, and classroom context. Arguably, for teachers to know how and when to provide CF appropriately is as complex as the many other variables that moderate the effects of CF on a learner's developing system. Although some L2 teacher education programs might portray CF as a pedagogical practice that does not require any special training,[1] the results of various teacher feedback studies, including this one, tell us otherwise.

As suggested in the preceding discussion, the distinction between treatable and untreatable errors that has always been considered from the learners' perspective may also provide a key to understanding both pre- and in-service L2 teachers' CF practices, suggesting that over and above exposing future teachers to the role of CF in L2 acquisition and to the various strategies that can be used to provide it, teacher education programs should also address the challenges teachers will eventually face. The focus should be on developing future teachers' metalinguistic awareness about complex linguistic notions so that they do not refrain from providing explanations for fear of making mistakes themselves or of not being understood by the learners, as was the case for several tutors in our study. Because our tutors did not have a full understanding of the tutees' proficiency levels, they found it difficult to gear their CF toward specific student needs, which suggests that future teachers should be exposed to the writings of learners of different proficiency levels so that they become adept at evaluating the specific needs of these learners and selecting the most adequate CF treatment. Also, teachers must develop a greater awareness of the different factors that influence their decision to provide one type of CF or another and reflect on apparent contradictions. In this respect, one of our goals in this study was to provide pre-service teachers with a space free of contextual constraints that enabled them to exercise their autonomy as they first engaged in providing CF and then reflected on the decisions that affected their choices. Prospective teachers often lament the fact that they feel ill prepared by their pre-service training for the reality of the classroom. Collaboration projects

such as the one reported in this study can provide pre-service teachers with the opportunity to bridge the gap between educational theory and practice. We hope that our study will inspire teacher educators to explore other such innovations to guide prospective L2 teachers in the development of their pedagogical practices.

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Note

1 L2 teacher education programs at the undergraduate level in Québec universities do not offer specific courses on the topic of corrective feedback.

References

Aljaafreh, A., & Lantolf, J. (1994). Negative feedback as regulation and second language learning in the zone of proximal development. *The Modern Language Journal*, *78*, 465–483. http://dx.doi.org/10.1111/j.1540-4781.1994.tb02064.x

Barkhuizen, G., & Borg, S. (2010). Editorial: Research language teacher education. *Language Teaching Research*, *14*, 237–240. http://dx.doi.org/10.1177/1362168810365234

Beasley, T.M., & Schumacker, R.E. (1995). Multiple regression approach to analyzing contingency tables: Post-hoc and planned comparisons procedures. *Journal of Experimental Education*, *64*, 79–93. http://dx.doi.org/10.1080/00220973.1995.9943797

Bitchener, J. (2008). Evidence in support of written corrective feedback. *Journal of Second Language Writing*, *17*, 102–118. http://dx.doi.org/10.1016/j.jslw.2007.11.004

Borg, S. (2003). Teacher cognition in language teaching: A review of research on what language teachers think, know, believe, and do. *Language Teaching*, *36*, 81–109. http://dx.doi.org/10.1017/S0261444803001903

Bruton, A. (2009). Improving accuracy is not the only reason for writing, and even if it were. . . . *System*, *37*, 600–613. http://dx.doi.org/10.1016/j.system.2009.09.005

Burgess, J., & Etherington, S. (2002). Focus on grammatical form: Explicit or implicit? *System*, *30*, 433–458. http://dx.doi.org/10.1016/S0346-251X(02)00048-9

Busch, D. (2010). Preservice teacher beliefs about language learning: The second language acquisition course as an agent for change. *Language Teaching Research*, *14*, 318–337. http://dx.doi.org/10.1177/1362168810365239

Chan, A. (2010). Toward a taxonomy of written errors: Investigation into the written errors of Hong Kong Cantonese ESL learners. *TESOL Quarterly*, *44*, 295–319. http://dx.doi.org/10.5054/tq.2010.219941

Chandler, J. (2004). A response to Truscott. *Journal of Second Language Writing*, *13*, 345–348. http://dx.doi.org/10.1016/j.jslw.2004.05.001

Chandler, J. (2009). Response to Truscott. *Journal of Second Language Writing*, *18*, 57–58. http://dx.doi.org/10.1016/j.jslw.2008.09.002

Ellis, R. (2009). Corrective feedback and teacher development. *L2 Journal*, *1*, 3–18.

Ellis, R. (2010). Epilogue: A framework for investigating oral and written corrective feedback. *Studies in Second Language Acquisition*, *32*, 335–349. http://dx.doi.org/10.1017/S0272263109990544

Fang, Z. (1996). A review of research on teacher beliefs and practices. *Educational Research*, *38*, 47–65. http://dx.doi.org/10.1080/0013188960380104

Farrell, T. S. C., & Lim, P. (2005). Conceptions of grammar teaching: A case study of teachers' beliefs and classroom practices. *TESL-EJ*, *9*(2), 1–3.

Ferris, D. (1999). The case for grammar correction L2 writing classes: A response to Truscott (1996). *Journal of Second Language Writing*, *8*, 1–11. http://dx.doi.org/10.1016/S1060-3743(99)80110-6

Ferris, D. (2004). The "grammar correction" debate in L2 writing: Where we are, and where do we go from here? (and what do we do in the meantime . . .?). *Journal of Second Language Writing*, *13*, 49–62. http://dx.doi.org/10.1016/j.jslw.2004.04.005

Ferris, D. (2006). Does error feedback help student writers? New evidence on the short- and long-term effects of written error correction. In K. Hyland & F. Hyland (Eds.), *Feedback in second language writing* (pp. 81–104). Cambridge, England: Cambridge University Press. http://dx.doi.org/10.1017/CBO9781139524742.007

Ferris, D. (2010). Second language writing research and written corrective feedback in SLA: Intersections and practical applications. *Studies in Second Language Acquisition*, *32*, 181–201. http://dx.doi.org/10.1017/S0272263109990490

Furneaux, C., Paran, A., & Fairfax, B. (2007). Teacher stance as reflected in feedback on student writing: An empirical study of secondary school teachers in five countries. *International Review of Applied Linguistics in Language Teaching*, *45*, 69–94. http://dx.doi.org/10.1515/IRAL.2007.003

Gass, S., & Selinker, L. (2001). *Second language acquisition*. Mahwah, NJ: Erlbaum.

González-Bueno, M., & Pérez, L.C. (2000). Electronic mail in foreign language writing: A study of grammatical and lexical accuracy, and quantity of language. *Foreign Language Annals*, *33*, 189–198. http://dx.doi.org/10.1111/j.1944-9720.2000.tb00911.x

Gouvernement du Québec (2007). *Programme de formation de l'école québécoise, premier cycle du secondaire.* Québec, QC: Ministère de l'éducation, du loisir et du sport.

Guénette, D. (2010). La rétroaction corrective à l'écrit: Pratiques et croyances, deux réalités parallèles ? *La Revue canadienne des langues vivantes*, *66*, 935–966.

Hendrickson, J. (1980). The treatment of error in written work. *The Modern Language Journal*, *64*, 216–221.

Hyland, K., & Hyland, F. (2006). Interpersonal aspects of response: Constructing and interpreting teacher written feedback. In K. Hyland & F. Hyland (Eds.), *Feedback in second language writing* (pp. 206–224). Cambridge, England: Cambridge University Press. http://dx.doi.org/10.1017/CBO9781139524742.013

Johnson, K. (1994). The emerging beliefs and instructional practices of pre-service English as a second language teachers. *Teaching and Teacher Education*, *10*, 439–452. http://dx.doi.org/10.1016/0742-051X(94)90024-8

Kroll, B. (1990). What does time buy? ESL student performance on home versus class composition. In B. Kroll (Ed.), *Second language writing: Research insights for the classroom* (pp. 140–154). Cambridge, England: Cambridge University Press. http://dx.doi.org/10.1017/CBO9781139524551.014

Kupelian, M. (2001). The use of e-mail in the L2 classroom: An overview. *Second Language Learning and Teaching*, *1*, Article 4. Retrieved March 2004 from http://www.usq.edu.au/users/sonjb/sllt/1/Kupelian01.htm

Lee, I. (2004). Error correction in L2 secondary writing classrooms: The case of Hong-Kong. *Journal of Second Language Writing*, *13*, 285–312. http://dx.doi.org/10.1016/j.jslw.2004.08.001

Lee, I. (2008a). Ten mismatches between teachers' beliefs and written feedback practice. *ELT Journal*, *63*(1), 13–22. http://dx.doi.org/10.1093/elt/ccn010

Lee, I. (2008b). Understanding teachers' written feedback practices in Hong Kong secondary classrooms. *Journal of Second Language Writing*, *17*, 69–85. http://dx.doi.org/10.1016/j.jslw.2007.10.001

Lightbown, P., & Spada, N. (1994). An innovative program for primary ESL students in Quebec. *TESOL Quarterly*, *28*, 563–579. http://dx.doi.org/10.2307/3587308

Lyster, R., & Ranta, L. (1997). Corrective feedback and learner uptake: Negotiation of form in communicative classrooms. *Studies in Second Language Acquisition*, *19*, 37–66.

Montgomery, J.L., & Baker, W. (2007). Teacher-written feedback: Student perceptions, teacher self-assessment, and actual teacher performance. *Journal of Second Language Writing*, *16*, 82–99. http://dx.doi.org/10.1016/j.jslw.2007.04.002

Morton, T., & Gray, J. (2010). Personal practical knowledge and identity in lesson planning conferences on a pre-service TESOL course. *Language Teaching Research*, *14*, 297–317. http://dx.doi.org/10.1177/1362168810365243

Polio, C. (1997). Measures of linguistic accuracy in second language writing research. *Language Learning*, *47*, 101–143. http://dx.doi.org/10.1111/0023-8333.31997003

Sheen, Y., & Lyster, R. (Eds.). (2010). The role of oral and written corrective feedback in second language acquisition [Special issue]. *Studies in Second Language Acquisition*, *32*(2).

Truscott, J. (1996). The case against grammar correction in L2 writing classes. *Language Learning*, *46*, 327–369. http://dx.doi.org/10.1111/j.1467-1770.1996.tb01238.x

Truscott, J. (2001). Selecting errors for selective error correction. *Concentric: Studies in English Literature and Linguistics*, *27*, 93–108.

Truscott, J. (2009). Arguments and appearances: A response to Chandler. *Journal of Second Language Writing*, *18*, 59–90. http://dx.doi.org/10.1016/j.jslw.2008.09.001

Vásquez, C., & Harvey, J. (2010). Raising teachers' awareness about corrective feedback through research replication. *Language Teaching Research*, *14*, 421–443. http://dx.doi.org/10.1177/1362168810375365