Error Correction and Learner Perceptions in L2 Spanish Writing

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The skill of writing in a first (L1) or second language (L2) is a complex issue, as becoming a proficient writer entails mastering elements of content, style, and organization in addition to surface elements such as grammar, vocabulary, and the actual mechanics of writing. While surface errors are generally of secondary interest in L1 writing, they have been a focus of L2 writing research for some time. One important area of research in L2 writing is that of error/grammar correction, specifically, whether learners actually benefit from the feedback that they receive from instructors and which type of feedback is most effective. Despite the fact that research on this topic has been ongoing for many years, it appears that opinions on this question appear to be as polarized as ever (e.g., the debate between Ferris 1999, 2004 and Truscott 1996, 1999). In her recent article, Ferris (2004) articulates the issues that have contributed to this state of affairs. For example, the author reviews much of the literature on error correction in L2 and asserts that existing empirical studies are largely incomparable due to differences in subject characteristics (i.e., English as a Second Language [ESL] vs. English as a Foreign Language [EFL] vs. foreign language [FL] students in American colleges), size of samples and treatment groups, duration of studies, types of writing considered, and types of feedback provided to students, among other parameters. Despite these inconsistencies, Ferris highlights several error correction studies that are similar in design as well as other current trends in L2 acquisition which suggest that errors must be made salient for learners to continue developing their linguistic competence and she concludes that there is sufficient evidence to suggest positive effects for written error correction.

In the sections below an overview of previous empirical studies on error correction conducted in a FL context will be presented along with a review of one study with ESL students that helped shape the current investigation. This will be followed by the research questions that motivated the current study, a description of the experimental design, and the presentation of the data and statistical analysis. Finally, the results of the study and its limitations as well as implications for future research are discussed.

1. Review of previous literature

While there are a considerable number of studies that focus on the issue of error correction among ESL populations, relatively few studies have been carried out among FL learners. A comparison of seven studies, Ashwell (2000), Cardelle and Corno (1981), Frantzen (1995), Kepner (1991), Lalande (1982), Robb et al. (1986), and Semke (1984), shown in the following table, reveals some of the challenges pointed out by Ferris (2004) regarding the lack of comparability among error correction studies.

	Participants/ Length of Study	Type of Writing Evaluated	Treatment Groups
Ashwell (2000)	60 EFL – Japan/ one 3-draft essay	3-draft essay	1) control – no feedback 2) content then form 3) form then content 4) content + form together
Cardelle and Corno (1981)	68 beginning & intermediate SFL/ 6 weeks	Pretest 11 homework assignments 3 post-tests	1) praise 2) criticism 3) criticism + praise 4) no feedback
Frantzen (1995)	44 intermediate SFL/ one semester	Grammar pretest and posttest; essay pretest + posttest + essay	1) Grammar instruction + error correction 2) No grammar instruction + errors indicated only
Kepner (1991)	60 intermediate SFL/ one semester	1 journal entry (< 200 words)	1) surface-level error correction 2) message related comments only
Lalande (1982)	60 intermediate GFL/one semester	Pretest (essay) 2-draft essays	1) control – errors corrected + rewrites 2) correction codes + rewrites + error awareness sheet
Robb et al. (1986)	134 EFL – Japan/one year	Pretest + 4 narrative compositions	1) correction of all errors with explanations 2) coded 3) uncoded (highlighted) 4) marginal; # of errors/line
Semke (1984)	141 beginning GFL/ 10 weeks	Pretest/Post-test Timed free-writing sample + cloze test	1) comments only 2) correction of errors 3) corrections + comments 4) codes followed by learner corrections

Table 1: Summary of error correction studies

As can be observed in the chart above, these FL studies differ with respect to the size and characteristics of learner populations (e.g., EFL vs. American college students, proficiency levels), length of study, type of writing evaluated (e.g., essays vs. homework assignments vs. journal entries), feedback given to learners, as well as on other elements. It is not surprising, therefore, that the findings of these studies also differ, with the majority finding negligible effects for different types of feedback on the accuracy of subsequent production.

A closer examination of the studies carried out with American college students, Cardelle and Corno (1981), Frantzen (1995), Kepner (1991), Lalande (1982) and Semke (1984) reveals that none tested the effects of coded vs. uncoded feedback on the accuracy of a second version of a composition. Given the fact that two-draft compositions are commonly assigned in FL courses and that many instructors utilize correction codes in order to guide learners in improving accuracy on the second draft, it is necessary to determine whether this type of feedback is indeed effective. Also, as providing written feedback to learners is time-consuming for the instructor, especially in a multiple-draft context, it is important to determine how much feedback is necessary to enable learners to improve their writing skills.

One study conducted by Ferris and Roberts (2001) examined the effects of three different types of feedback on the ability to self-correct on a two-draft composition with 72 ESL learners. In this study the control group received no feedback, while the experimental groups received feedback after writing an in-class composition (a reaction to a reading) on five error types (verb errors, noun ending errors, article errors, word-choice errors, and errors of sentence structure) either directly (errors coded according to type) or indirectly (errors underlined). After a subsequent in-class correction session, the

corrections made by the learners were evaluated. The authors found that the subjects in the two feedback conditions showed significant improvement on a second draft as compared to the control group. The researchers, however, did not find differences in error correction between the experimental groups, and thus concluded that less-explicit feedback may be just as effective for self-correction. Nevertheless, the fact that the participants were drawn from two different populations (i.e., 44 students enrolled in a composition class and 28 students in a "Grammar for Writers" class which presumably had different goals and emphases) and the fact that participants did not perform the same tasks may have contributed to these results. Also, it is important to recognize that ESL and FL language environments are different with respect to the amount and type of exposure to the language that learners have access to. Hedgcock and Lefkowitz (1994) observed that L2 writing in these contexts serves very different purposes; in an ESL context, for example, learners must develop composition skills in order to pursue an education, whereas in the FL classroom writing largely serves as language practice. Similarly, as attested in their survey data, there are important differences between ESL and FL students with regard to the perceived benefit they receive from surface-error correction vs. comments on organization, idea development, and writing style, and consequently, on their preferences for feedback. For example, FL learners expressed a strong preference for feedback on formal features of their writing such as grammar, lexical, and mechanical errors while the responses of ESL students revealed that they were as interested in comments addressing idea development and writing style as they were in those on surface errors. Thus, given the differences between the SL and FL learning contexts, it is valuable to conduct a study on the effect of feedback type on surface-error correction in an FL context.

Since Ferris and Roberts' (2001) study showed that both underlining and correction codes were significantly more effective than no feedback in helping learners improve their writing on the second draft of a composition, the objective of the current study was to empirically test the effectiveness of these two types of feedback in an FL context. The following research questions guided the current study:

1) Does the type of feedback provided to learners affect their ability to self-correct on a two-draft composition? If so, is uncoded or coded feedback more effective in assisting learners in improving the second draft of a composition?

2) What are learners' perceptions regarding the effectiveness of uncoded vs. coded feedback in assisting them in error correction and in improving their L2 writing skills?

2. Methodology

This study utilized a repeated-measures design to examine the effects of uncoded vs. coded feedback on learners' ability to self-correct on a two-draft composition. This experimental design was selected because it has been observed that related samples allow the researcher to avoid problems that can result from subject-to-subject variability, and as a result it increases the likelihood of rejecting a false null hypothesis (Howell 1999).

2.1 Participants

One intact class of 21 students of Spanish as an FL of intermediate/advanced proficiency taught by one of the researchers at a public university was selected for the study. As two learners did not complete both writing samples, their data were eliminated from the study, bringing the final number of participants to 19 (4 males and 15 females). The participants had already completed the four-semester sequence of required classes in Spanish and were taking this course, Spanish Grammar and Composition, as an elective. The format of the course was an intensive review of specific points of Spanish grammar identified as difficult for learners whose native language is English using the textbook *Repase y Escriba* (Dominicis & Reynolds 2003). The grammar points covered in the course were featured in short literary readings in the text that also highlighted different aspects of Latin American and Spanish culture. In addition, the book contained sections promoting vocabulary development and tips for how to improve writing.

2.2 Procedures

The study was carried out in the second half of the semester and the experimental tasks described below were incorporated as a part of the curriculum after a review of the grammar points highlighted in the composition, specifically the preterit and imperfect verb tenses. The data were collected in two classroom sessions during which participants were asked to write two narrative compositions. For the first composition, participants received a sheet with six drawings illustrating the story of *Romeo and Juliet* (taken from the *Pasajes* workbook [Bretz et al. 2002]). They were instructed to follow the sequence of drawings to write a paragraph in Spanish narrating the events depicted in the drawings using the past tense (preterit and imperfect). In addition, in order to accurately measure participants' control of grammar and vocabulary, the use of a dictionary was not permitted. Learners were provided with four key vocabulary words in Spanish (*daga* 'dagger,' *fraile* 'monk,' *poción* 'potion,' and *veneno* 'poison') along with their translations in English that were important for writing the composition, but with which they may not have been familiar.

For the second composition, participants received a similar sheet with six drawings illustrating the story of a woman who was hit by a car (also taken from the *Pasajes* workbook); in this set of drawings, there was also a seventh square with a question mark. Thus, in addition to narrating the events depicted in the drawings using the past tense, participants were also asked to provide an original conclusion for the story. Once again, dictionary use was not permitted, but in this case learners were provided with eight important vocabulary words in Spanish (*atropellar* 'to run over,' *conductor* 'driver,' *peatones* 'pedestrians,' *paraguas* 'umbrella,' *huir* 'to flee,' *pasajero* 'passenger,' *semáforo* 'traffic light,' and *testigo* 'witness') along with their translations in English to facilitate their writing. In each session, participants were given 30 minutes to write their compositions.

After each classroom session, the compositions were evaluated by the researchers. On the first composition, syntactic, lexical, and mechanical errors were indicated by underlining, and on the second, errors were underlined and then coded (see Appendix A for error codes). In the classroom sessions immediately following the tasks, the compositions were returned to participants and they were given 20 minutes to correct their errors. In order to correct the second composition, participants received a list of the codes that explained the type of error indicated. Following the 20-minute correction sessions, subjects completed questionnaires regarding their original compositions and the corrections they had just completed (see Appendices B and C for actual questionnaires).

2.3 Data analysis

To evaluate the compositions and analyze the data, the number of errors on each composition and the number of words in each composition were calculated. Next, the average number of words on Compositions 1 and 2 was calculated for the entire sample. The descriptive statistics for each version of the compositions are presented in Table 2.

Task	Number of Words	Average Number of Words	Number of Errors
Composition #1: Version 1 (underlined) Version 2	89-204 90-207	147 149	10-50 4-42
Composition #2: Version 1 (coded) Version 2	100-189 99-196	149 151	15-63 0-35

Table 2: Descriptive statistics: Learner compositions

As can be seen in Table 2, there was a great deal of variation in the number of words produced and the number of errors committed. Thus, in order to make each version and the two compositions comparable, a normalized error score was calculated for each participant's composition following the procedures suggested in Biber et al. (1998). To calculate this score, the number of errors in each composition was divided by the number of words in the composition and then that number was divided

by the average number of words in the sample. Next, the normalized scores for each participant were used to analyze the data using the Statistical Package for the Social Sciences (version 12.0) and the alpha level was set at .05. Finally, in order to examine learner perceptions regarding error feedback, the answers to the written questionnaires were transcribed and evaluated.

3. Results

To answer the first research question as to whether the type of feedback provided to learners affects their ability to self-correct on a two-draft composition and to determine whether uncoded or coded feedback is more effective in assisting learners in improving the second draft of a composition, the means for each version of the composition were compared using paired-samples t-tests. The means and standard deviations of the normalized scores for each version of the composition are shown in Table 3.

	Mean	S.D.
Composition 1 – Version 1 (Underlined)	31.35	12.70
Composition 1 – Version 2	16.84	11.76
Composition 2 – Version 1 (Coded)	30.73	11.36
Composition 2 – Version 2	11.53	7.59

Table 3: Descriptive statistics: Compositions 1 and 2

To begin, the first and second drafts of each composition were compared to see whether there were significant differences between the versions. The results of the t-tests for the first and second versions of Compositions 1 and 2 were significant, $t(18) = 12.28$, p < .05, and $t(18) = 14.21$, p < .05, respectively, indicating that participants did benefit from having their errors indicated in some fashion by the instructor. In addition, to see if there were differences between Compositions 1 and 2, paired-samples t-tests were also conducted. While the tests revealed no significant differences between the first drafts of Compositions 1 and 2, $t(18) = .28$, p > .05, they did reveal significant differences between the second drafts of the coded and uncoded compositions, $t(18) = 8.71$, p < .05, suggesting that the type of feedback did indeed influence learners' ability to self-correct. For these participants, coded feedback enabled them to significantly improve the accuracy of their writing from the first to second version of the composition.

Next, in order to answer the second research question regarding learners' perceptions of the effectiveness of uncoded vs. coded feedback in correcting errors and improving their L2 writing skills, the questionnaire data were examined. The results of the questionnaires completed by the participants after correcting the compositions fully supported the quantitative results described above. In the uncoded feedback condition, only 2 students, or 11% of the group, reported being 'very satisfied' with their corrections, 16, or 84% were 'somewhat satisfied' and 1, or 5%, was 'not satisfied at all,' while in the coded feedback condition, 8 students, representing 42% of the group, reported being 'very satisfied' with their corrections, 11, or 58%, were 'somewhat satisfied' and none was 'not satisfied at all.' In addition, in several of the written comments that accompanied this question, in the underlining condition learners indicated that many times they were unsure as to what changes were required to correct their errors.

The answers that students provided in response to the question "Please compare the corrections you made today (with the coding sheet) with those you made on the last composition when your errors were underlined but not coded" are perhaps the most useful in revealing learner attitudes toward these two different error correction methods. These responses were overwhelmingly positive, with 15 students responding with statements such as: "I believe I understood what the professor wanted from me better," "I feel my corrections are more precise today," "Knowing exactly what was wrong made it much more clear than the first composition," "The corrections with the coding sheet were easier since I could see what was wrong," "It narrowed it down a lot instead of me trying to figure out what the problem was," "It was much easier to make the corrections, as I was clear on what mistakes I had

made," "This was much better and more efficient," "I believe today I corrected the errors more accurately than the last composition because I knew what was wrong and I was more aware of how to correct them," and finally, "I have more confidence in my corrections this time, the coding system really helped narrow down possibilities." Overall, it is clear that the participants in this study preferred correction codes to underlined errors in helping them to improve the second draft of their compositions.

4. Discussion and conclusions

In answer to the question of whether the type of feedback affected learners' ability to self-correct on a two-draft composition, this empirical study suggests that the type of feedback learners receive does indeed affect their ability to self-correct from the first to the final draft of a composition. It is important to note that these results differ from those obtained in the study conducted by Ferris and Roberts (2001), which found significant differences between the performance of both experimental groups (errors underlined and errors coded) as compared to the control group (with no feedback) but not between the experimental groups, leading them to conclude that the type of error feedback did not significantly aid participants in correcting their errors on the second draft of their compositions. The results of the current study revealed that while both types of feedback, underlining errors and correction codes, enabled learners to produce significantly more accurate compositions, the coded feedback was significantly more effective in helping them to self-correct on the second draft. As mentioned previously, the fact that the participants in Ferris and Roberts' study were drawn from two different populations and performed different tasks, while participants in the current study represented an intact class and performed the same composition may have contributed to the findings. It is also important to note that while Ferris and Roberts' study identified five specific grammar and syntactic errors, the current study included 19 error types, representing grammatical, lexical, and mechanical errors. Thus, it possible that in the present investigation, correcting mechanical errors, such as adding or eliminating accent marks or correcting misspellings, contributed to the significant results obtained here. In Ferris and Roberts' study, however, to improve their essays, learners were required to correct grammar and sentence structure errors that may have been less amenable to correction. Nevertheless, the overall results for the current study suggest that coded feedback does significantly enhance learners' ability to self-correct, at least in this context and among these learners, and that instructors' time is well-spent in providing feedback to learners using well-defined correction codes. It is also heartening to know that learners responded favorably to the coding of errors and felt that it did enable them to produce better compositions on the second draft.

With respect to learners' perceptions regarding the effectiveness of uncoded vs. coded feedback, the questionnaire data clearly revealed a preference for coded feedback. The results reported here are consistent with the observations of the FL students surveyed in Hedgcock and Lefkowitz's (1994) study who felt that they benefited most from feedback on formal features (i.e., grammatical, lexical and mechanical errors) as compared to feedback on content, organization, or style and indicated a similar preference for the use of correction symbols to identify errors. In general, survey research has reported that L2 students value the feedback they receive on their errors in writing (Cohen 1987, Ferris 1995, Leki 1991, Radecki & Swales 1988) and this study lends further support to this notion. Rather than having a detrimental effect on learners' attitudes, at least in this study, participants responded positively to the error correction methods examined.

At this time a few caveats should be made regarding the positive results of this study that may also suggest some directions for future investigations. For example, the population size of 19 learners is small and while the repeated-measures design does enhance statistical power, a larger sample should be employed to verify the results obtained here. In addition, it should be observed that the significant effects obtained in this study are only measured from first to final draft of two in-class narrative compositions. Ferris (2004) observes that longitudinal studies should be carried out to determine if the positive effects for error feedback are limited to a second draft or whether an improvement can be seen over time in learners' linguistic competence. While the results of the current project are encouraging, as there was no delayed measure, it is not possible to determine whether the linguistic competence of

these participants was enhanced by the error feedback they received; only a longitudinal design could answer that question. Similarly, without a longitudinal design, it cannot be determined whether correction codes or underlining is more valuable in effecting changes in the learners' interlanguage system with respect to the accuracy of the grammatical points targeted in this study. It is possible that because underlining requires learners to invest additional attentional resources in determining the type of error before correcting it, that this type of feedback would be more beneficial in the long-run, however this is beyond the scope of the current study. Also, the type of task that learners performed may have indirectly contributed to the positive results obtained here; were the task different or perhaps more difficult, participants may not have been as successful in correcting their errors on a second draft.

In addition, this study did not incorporate a control group who received no feedback. While the design of the current study was selected to address this limitation somewhat, only a control group who received no feedback at all would indicate definitively whether coding or underlining errors is effective for learners as opposed to improving with writing practice alone. With respect to additional directions for future research, it would be helpful to see whether learners' ability to self-correct could be further enhanced with specific training on the use of error codes and whether grammatical, lexical and mechanical error types are equally correctable using codes. In addition, further studies at different levels of proficiency as well as those that focus on different genres of writing would provide insight into the effectiveness of error correction in different contexts.

In conclusion, this study provides some encouragement to instructors who invest their time providing error feedback to their students, both from the perspective of effectiveness as well as from learner receptiveness. Although much work remains to be done in the area of error correction in L2 writing, it is hoped that this study will not only show that error correction in L2 writing is indeed a worthwhile endeavor, but will spur additional research in this important area.

Appendix A

<div align="center">Correction Codes</div>

AA   Adjective/noun agreement wrong (includes gender and number)

AC   Accent wrong or missing

AGR   Subject/verb agreement problem; make sure subject agrees with verb.

AP   Personal '*a*' required

ART   Article wrong or missing (includes definite [*el/la…*] vs. indefinite [*un/uno/una…*])

CC   Wrong copula choice; choose between *ser* and *estar*

GEN   Gender wrong; check whether noun is masculine or feminine and make it agree with article.

INF   Infinitive needed

OP   Object pronoun wrong or missing; may include direct/indirect object pronouns or masculine/feminine; make sure pronoun agrees with the noun it is replacing.

PART   Participle form of verb required; be sure the participle agrees with the noun if it is being used as an adjective or in the passive voice. Ex.: <u>Las composiciones fueron **revisadas** por el profesor</u>. If it is used in a perfect tense, use the masculine singular form. Ex: <u>Yo he **estudiado** para el examen</u>.

PREP   Preposition wrong or missing

REL   Relative pronoun wrong; frequently '*que*' is missing. Ex.: <u>La casa *(que)* yo compré.</u>

REF   Reflexive pronoun wrong or missing

SP   Spelling error

SPN   Subject pronoun problem; Ex: Yo, tú, él, ella, Ud., nosotros, ellos, ellas, Uds.

TNS   Tense incorrect (includes preterit/imperfect distinction)

VF   Verb improperly conjugated (includes wrong verb forms, e.g., stem-changing verbs)

WC   Word choice – more appropriate word required; vocabulary error; may be the result of a direct translation from English.

WO   Word order incorrect

Appendix B

Questionnaire – Composition #1

Please answer the following questions about your original composition and the corrections you have just completed.

1. Were you familiar with the story of Romeo and Juliet before writing the composition?
   _____ Very familiar   _____ Somewhat familiar   _____ Not familiar at all
   Comments:

2. Was the picture sequence helpful in structuring your original composition?
   _____ Very helpful   _____ Somewhat helpful   _____ Not helpful at all
   Comments:

3. How satisfied were you with the composition you wrote when you turned it in on Monday?
   _____ Very satisfied   _____ Somewhat satisfied   _____ Not satisfied at all
   Comments:

4. How did you feel when you received the composition back today and saw the errors that had been underlined? Please explain.

5. In your opinion, in what category were the majority of your errors?
   _____ Grammar   _____ Vocabulary   _____ Mechanics (e.g., accents,
                                                                  spelling, punctuation)
   _____ Other (please specify)
   Comments:

6. How do you feel about the corrections you made today?
   _____ Very satisfied   _____ Somewhat satisfied   _____ Not satisfied at all
   Comments:

7. Were there any items you could not/did not correct? _____ No _____ Yes (please explain)
   Comments:

8. How effective did you find this exercise in helping you improve your writing in Spanish?
   _____ Very effective   _____ Somewhat effective   _____ Not effective at all
   Comments:

9. How effective do you think <u>underlining your mistakes</u> is in helping you make corrections?
   _____ Very effective   _____ Somewhat effective   _____ Not effective at all

10. What could the instructor do to help you improve your writing?

Appendix C

Questionnaire – Composition #2

Please answer the following questions about your original composition and the corrections you have just completed.

1. How satisfied were you with the composition you wrote when you turned it in on Monday?
   _____ Very satisfied _____ Somewhat satisfied   _____ Not satisfied at all
   Comments:

2. How did you feel when you received the composition back today and saw the errors that had been coded? Please explain.

3. In your opinion, in what category were the majority of your errors?
   _____ Grammar   _____ Vocabulary   _____ Mechanics (e.g., accents, spelling, punctuation)
   _____ Other (please specify)
   Comments:

4. How do you feel about the corrections you made today?
   _____ Very satisfied _____ Somewhat satisfied   _____ Not satisfied at all
   Comments:

5. How effective was the <u>coding sheet</u> in helping you correct your errors?
   _____ Very effective _____ Somewhat effective   _____ Not effective at all
   Comments:

6. Were there any items you could not/did not correct? _____ No _____ Yes (please explain)
   Comments:

7. How effective did you find this exercise in helping you improve your writing in Spanish?
   _____ Very effective   _____ Somewhat effective   _____ Not effective at all
   Comments:

8. How effective do you think <u>having your mistakes identified with codes</u> is in helping you make corrections?
   _____ Very effective   _____ Somewhat effective   _____ Not effective at all

9. Please compare the corrections you made today (with the coding sheet) with those you made on the last composition when your errors were underlined but not coded.

10. What could the instructor do to help you improve your writing?

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