Computer-mediated corrective feedback in ESP courses: Reducing grammatical errors via Email

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Abstract

Corrective feedback is beneficial to L2 learning because it enables learners to acquire grammatical features that would otherwise be lost due to the fact they do not have continued access to learning principles (Ellis, 2008). This study aims to answer the research questions: (1) Is there any difference between the effect of electronic feedback as opposed to paper feedback on the grammatical accuracy of Iranian ESP students’ writings? (2) What are the attitudes of ESP students towards electronic feedback in their courses? To find the answers, this study was conducted with the ESP students majoring in Tourism at the University of Applied Science & Technology in Mashhad, Iran. There were 86 female and male students, ranging from 18-49. After administering a proficiency test, the participants were randomly assigned to experimental and control groups. In order to find the answer for the second question, an attitude questionnaire, consists of demographic and attitudes items, developed by researcher were distributed among participants.

The first group (experimental group) had the chance to receive the electronic feedback via email after submitting their assignments, but the second group (control group) did not have this opportunity and just had the traditional paper feedback. The researchers hypothesized that electronic feedback has positive effect on the grammatical accuracy of Iranian ESP students’ writings. Moreover, they have more positive attitudes towards e-feedback than paper feedback. The differences between these two classes were statistically different, meaning that the computer-mediated feedback process seemed to be more influential in enhancing the grammatical accuracy of the participants.

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1. Introduction

The bearings of corrective feedback on the development of second language writing skills have been the subject of debate in recent years, with some scholars arguing that error correction appears not only to be ineffective and vain, but also harmful to students’ fluency and their overall writing quality (Truscott, 2004). It is in fact asserted that research findings exhibit no positive effect for correction in L2 writing in such a way that impediments such as teacher limitations and student inattention make even the hypothetical benefits of grammar correction unlikely, since it takes time and energy away from other more important writing concerns (Truscott, 1996). Terrell (1982) draws attention to three reasons for not correcting students’ errors directly: (1) it does not lead to more correct language usage in the future, (2) it may result in negative affective feelings that interfere with learning, (3) it will probably cause students to focus their attention on language rather than meaning and communication. What confounds this issue even further is the fact that, in general, most classroom learners like to be corrected. Research on students’ preferences has reported that students expect teachers to comment on their written errors and are frustrated if this does not happen (Hedgcock & Lefkowitz, 1994; Ferris, 1995; Lee, 2004).

More recent empirical research on the effect of corrective feedback, nevertheless, puts forward that feedback does lead to writing improvements (Hyland and Hyland, 2006). There are various terms used in identifying errors and providing corrective feedback in the SLA literature—the most common being corrective feedback, negative evidence, and negative feedback. According to Schachter (1991), corrective feedback, negative evidence, and negative feedback are three terms used respectively in the fields of language teaching, language acquisition, and cognitive psychology.

One position is that corrective feedback is beneficial to L2 learning because it enables learners to acquire grammatical features that would otherwise be lost due to the fact they do not have continued access to learning principles (Ellis, 2008). In a research study, White (1991) provided evidence to show that adverbial placement rules in L2 English, which are not typically acquired by learners whose L1 lacks them, can be successfully learned through formal instruction. Acknowledging the role of corrective feedback, Ferris (2006) also demonstrated that students made statistically significant reductions in their total number of errors over a semester in five major grammar categories with a particular reduction in verb and lexical errors.

One variable, which is considerably important in the improvement of language accuracy of EFL learners, is the type of error feedback provided. Some researchers have made a distinction between explicit and implicit feedback. While explicit feedback includes grammatical explanation or overt error correction, implicit correction incorporates confirmation checks, repetitions, recasts, clarification requests, silence, and even facial expressions that express confusion (Long, 1996). Although indirect feedback may encourage learner reflection and self-editing (Lalande, 1982), the role of explicit feedback in students’ uptake is indispensable, since lower proficiency students may fail to identify and correct errors even when they have been marked for them (Ferris and Hedgcock, 2005).

Following the widespread use of computer technologies in language classrooms in recent years, a further distinction can be made between electronic feedback and conventional print feedback. Net-worked communication is said to provide non-threatening environment for students to practice their literacy skills and receive peer feedback on their work (Colomb & Simutis, 1996). Research also demonstrates that e-feedback can lead to better writing products (Sullivan & Pratt, 1996), focus on larger chunks of writing and work on macro-revisions (Tuzi, 2004). Examining different areas of research and instruction in which the concept of electronic feedback has been addressed, Ware and Warschauer (2006) outline three strands of research on e-feedback for second language writing. First, they delineate the potential usefulness and cost-effectiveness of software-generated feedback to replace or enhance direct human feedback. Second, they sketch out comparative studies evaluating the effect of computer-mediated human feedback on ESL writing when compared with more traditional face-to-face feedback. Finally, influenced by socio-cultural and socio-cognitive perspectives, they look into differentiation within electronic modes, ranging from a specific focus on academic modes of second language writing to a notion of feedback that incorporates other communicative modalities, such as on-line chat, email collaboration, and multimedia authoring. In line with the second strand of research on the effect of electronic feedback on ESL writing as mentioned by Ware and Warschauer (2006), this study aims at shedding some light on the differences between the impact of e-feedback versus conventional print feedback on the quality of the writing of EFL learners. More
specifically, this study seeks to answer the following questions: Is there any difference between the impact of electronic feedback as opposed to print feedback on the grammatical accuracy of Iranian ESP students’ writings? What are the attitudes of ESP students towards electronic feedback in their courses?

2. Methodology

2.1. Participants

Two intact classes of sophomore students majoring in Tourism at the University of Applied Science & Technology, Mashhad, Iran took part in the current study during the second semester of 2012-2013. During the whole semester, participants (N=86) were supposed to submit writing assignments on a regular basis as part of their class assignments on which they were given corrective feedback on the grammatical accuracy of the structures.

2.2. Procedure

The students of two intact courses took part in the current study to let the researchers to explore the potential differences between the effects of electronic feedback versus traditional print feedback on the accuracy of the ESP students’ writings. For this purpose, one of the classes, class A, was assigned on-line writing projects, whereas the other class, i.e., class B, was required to submit print writing tasks. Overall, 10 sessions were held during the second semester of the academic year of 2012-2013, during which students of each class were expected to submit about 7 writing assignments on topics such as the rituals of Nouruz Holiday, the characteristics of an ideal parent, the role of technology in today’s life, the best film they had ever seen, the pros and cons of their country’s educational system, reasons for which some people emigrate to other countries, and the difference between rural and urban lifestyle during the whole semester. On about 5 of these assignments, students were given feedback mostly on the grammatical mistakes/errors they had in their writings. The difference between classes A and B actually resided in the type of writing assignments students was assumed to deliver. In class A, students were required to use Microsoft Word Processor to complete their assignments and send them to their teachers through emails. In class B, on the other hand, students were assumed to give in paper-and-pen writing tasks in hand to their teachers. The type of feedback given in both print and on-line contexts included underlining erroneous words and phrases along with including the corrected forms. While in class A, corrected papers in the Microsoft Word environment itself, was returned to the students via email exchanges, in class B, the corrected print papers were handed to the students in person in the class.

It is worth mentioning that to establish the comparability of both classes at the beginning of the term a Grammar test, taken from a Michigan Test of English Language Proficiency, with 40 items on various grammatical points including various tenses, prepositions, pronouns, comparative and superlative adjectives, agreements, conjunctions, conditional sentences along with some other grammatical rules was administered.

In addition, the degree of computer familiarity of the participants was also determined based on their responses to a questionnaire that focused on individual access to, attitude toward, and experience with computers, as well as related technologies. This questionnaire was developed researchers. The questionnaire consisted of 20 items. The Cronbach alpha of this instrument at current study was 0.79.

3. Results and discussion

This study was aimed at investigating whether there was any difference between the impacts of electronic feedback as opposed to print feedback on the grammatical accuracy of ESP students’ writings. In order to establish the homogeneity of the groups, two independent sample t-tests were conducted to examine whether the students of the two classes of computer-assisted and conventional writing were significantly different in terms of computer familiarity and grammar knowledge. As presented in Table 1, no statistically significant difference was found between these two groups in terms of their computer familiarity and grammar knowledge; therefore, it could be concluded that these groups were comparable.

Consequently, in order to examine and compare the effects of the electronic versus print feedback on the accuracy of the writings of the participants, a writing post-test administered following about 7 sessions of
completing writing projects accompanied by teacher feedback was analysed. To do so, the writing post-tests which was part of the students' final exams were corrected, coded, categorized and analysed in terms of the number of erroneous noun phrase (NPs), verb phrases (VPs), prepositional phrase (PPs), adjective phrases (AdjPs), and adverbial phrases (AdvPs) taking place in the papers. No word limit was required of the students; therefore, they were free to write as much as they could during the allocated one-hour time. As a result, the overall number of words produced by each student was also calculated. In addition, to ensure the reliability of the coding procedure and error counting, a colleague who was expert in teaching English was invited to kindly re-examine the procedure. In cases of discrepancies, the papers were re-analysed to ensure the consistency of the correcting and coding procedure.

The overall number of words produced during the writing post-test of the conventional class (n=2878) was slightly larger than that of the computer-assisted class (n=2838) which could be attributed to the further familiarity of the participants to the print medium as compared to the electronic mode. Comparing the overall number of errors produced in each medium, it was noticed that in the print-based writing class, during the post-test an overall 308 (10.7 %) of grammatical mistakes/errors was produced with the subcategories of NPs, VPs, PPs, and Adj-AdvPs each with values of 176 (6.1%), 79 (2.7 %), 37 (1.2 %), and 16 (0.2 %) respectively. In the computer-assisted class, on the other hand, an overall of 210 (7.3 %) mistakes/errors was articulated with the subcomponents of NPs, VPs, PPs, and Adj-AdvPs each with values of 112 (3.9%), 68 (2.3 %), 24 (0.8 %), and 6 (0.2 %) correspondingly. It appeared that students in the computer-mediated class produced less mistakes/erors as compared to those in the conventional class.

In order to see whether the observed differences in the frequency of the grammatical mistakes/errors were statistically significant or not, the statistical procedure of the Chi-Square was run between these groups of the participants. The results ($X^2=3.955$, $df=1$, $P=0.47$) demonstrated that the difference between these two classes were statistically different, meaning that the computer-mediated feedback process seemed to be more influential in enhancing the writing ability of the participants.

This result could be ascribed to the inherent merits of the electronic writing environments. Electronic venues such as the Microsoft Word or emails provide features that inform the users about some of their writing mistakes/errors such as verb agreement or spelling mistakes. Or it can partly be viewed as a result of enhanced motivation due to great excitement some students might feel in working with technology; though this issue can be regarded as a double-edge sword, since working with technology can create considerable anxiety for those who are not familiar enough with effectively and extensively employing technology. Conducting follow-up interviews with the participants, however, could help the researcher more in profoundly explaining the differences observed in the impact of presenting different types of feedback; yet owing to some problems it was not possible in the present study. Though conducting follow-up interviews with the participants of similar future studies is highly recommended.

The finding of the current study, nevertheless, is in line with those of Schultz (2000) and Tuzi (2004) who found that the writing ability of their participants improved better in an on-line environment. Schultz (2000) compared face-to-face with computer-mediated feedback by examining the revisions that intermediate and upper-intermediate French students made across their writings, where she found that students made more specific, local changes in the on-line mode. Tuzi (2004), likewise, examined how electronic feedback impacted the revisions that first-year university second language writers made to their academic compositions, where he observed that more revisions were made in response to the electronic feedback.

However, two major differences exist between the current study and those of Schultz (2000) and Tuzi (2004). First, in those studies electronic feedback was opposed to oral feedback, whereas in this study, electronic feedback was juxtaposed with written feedback. Furthermore, while these studies focused on the effect of peer feedback, the current study was concerned with the impact of teacher feedback in two different modes of print and electronic. Therefore, the finding of this research compels a comparison with studies of more similar in nature in order to be confident enough in generalizing the results. Nevertheless, the current study along with those of Schultz (2000) and Tuzi (2004) concur to pinpoint the potential merits of offering electronic feedback in an EFL/ESL writing class.

The current study manifested a statistically significant difference in the number of errors produced between students who received electronic feedback as opposed to those who were exposed to conventional print feedback. Currently, feedback studies have steered away from a narrow concern for the effectiveness of error correction and the practice of peer feedback to incorporate a new range of issues such as the potential of oral conferencing and computer-mediated feedback (Hyland & Hyland, 2006). Nevertheless, confounding variables makes it difficult to
isolate the effects of feedback from other factors such as individual learner differences, classroom activities, and the proficiency level of the students, among many other variables (Guenette, 2007). More research, therefore, needs to be conducted to profoundly explore the compound effects of all due variables in an ESP/EFL/ESL writing environment including computer-mediated ones.

References


