



2nd International Conference on Higher Education Advances, HEAd'16, 21-23 June 2016,
València, Spain

L2 Collaborative E-writing

Cristina Pardo-Ballester^{a,*}, Adolfo Carrillo Cabello^b

^aDepartment of World Languages and Cultures, Iowa State University, United States

^bCollege of Liberal Arts Language Center, University of Minnesota, United States

Abstract

Writing as a process has been recognized as an important tenant to integrate in L1 and L2 language courses. Research in this area has shown that collaboration in the form of peer-review exercises can improve writing outcomes. Even though research in this area has identified benefits for conducting peer reviews online, these studies have focused on the analysis of improvements in writing skills from the collaboration process without full consideration of the medium used in the process of collaboration and how the perceptions of students evolve.

This mixed-methods longitudinal study was aimed at the examination of the change in perceptions of Spanish intermediate language learners in out-of-class writing tasks. The study considered the interactions of 201 students in peer review exercises using discussion forums and grading rubrics in Blackboard 9. Data was collected using a survey that contained 17 Likert-scale items and two open-ended questions. The survey was administered at the beginning, middle, and end of 16-week semesters for a year. Results of the study have pedagogical implications for the selection of the medium of interaction and the use of digital media in collaborative writing assignments for instructors as well as course and materials developers.

© 2016 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Peer-review under responsibility of the organizing committee of HEAd'16

Keywords: Writing; Design-based research; asynchronous peer-review; interactive rubrics.

1. Introduction

Language directors, coordinators, and supervisors have a variety of responsibilities that are an integral part of their supervisory role in their language programs. Examples of these duties include providing guidance on the use

* Corresponding author. Tel.: +1 319-335-3500
E-mail address: cpardo@iastate.edu

of class materials to new language instructors, enhancing the language program by using new technologies, developing courses for delivery in course management systems, training instructors on course-delivery-systems (e.g., Blackboard), and they might also have to address instructor and student concerns about the language program they oversee. This project arose from the need to provide intermediate Spanish language instructors with an effective system to grade compositions by implementing an interactive grading rubric that was developed in an effort to integrate new technology features in the course management system newly adopted at the university where this study took place. The main motive for the integration of this rubric was the need to reduce the time instructors spend grading compositions in Spanish taking into account that the workload of these instructors is heavy since they mostly teach lower-level courses that are traditionally highly enrolled with 30 students in each section. Although there are studies that have focused on the investigation of peer corrective feedback, these studies have focused on peer feedback in face-to-face classrooms. Nonetheless, more recently, the use of technology in peer feedback has changed the research focus to account for the effectiveness of different types of feedback and students' writing performance (AbuSeileek & Abualsha'r, 2014) in technology mediated environments. Collaborative writing studies have explored the improvements in writing skills by analyzing types of feedback and learners' opinions ensuing from the collaboration and cooperation process (Oskoz, 2009; Oskoz & Elona, 2011; Yen, 2014). There is a need, however, to research the medium used in the process of collaboration and how the perceptions of students evolve. Further investigation of the peer-review process should document students' perceptions for learning Spanish. This, in turn, can serve to illustrate the importance of the feedback received in the writing tasks, as well as of the medium used to facilitate feedback. Research in this area, for instance, could focus on the study of the perceptions students have in regard to the process and medium used for peer-review activities and whether or not these change over time.

In this study, Design-Based Research (DBR) was adopted to better understand the teaching and learning experience in the writing area because it allows instructors to refine the design of tasks and improve language pedagogy by helping them to identify potential constraints a priori.

2. Conceptual framework

Wang and Hannafin, citing multiple authors (2005, p.4), reveal that DBR has been described under various names such as "design experiments" by Brown (1992), "design research" by Cobb (2001), "development research" by Van den Akker (1999), "developmental research" by Richey, Klein and Nelson (2003), and "formative research" by Walker (1992). McKenney and Reeves (2012) add "educational design research" as another term to refer to DBR. Although there are various names to describe the DBR approach, researchers clearly agree when characterizing it "as an iterative cycle composed of multiple steps such as exploration of the design, enactment of interventions, evaluation and analysis of the outcomes, and redesign" (Pardo-Ballester & Rodríguez, 2009, p.87). DBR can be understood as the "synergies between theory (applied linguistics, SLA, sociocultural theory, etc.), pedagogy (language teaching methodologies), and design artifacts (CALL tools, environments, etc.)" (Rodríguez & Pardo-Ballester, 2013,p.3) that provide opportunities to develop contextualized theories of teaching and learning. We believe that a DBR approach functions well within our research project because it offers researchers the possibility to refine the design of tasks and pedagogy by considering unknown factors by the researchers a priori. In addition, DBR is a context-sensitive methodology and it looks into "influence of contexts, the emergent and complex nature of outcomes, and the incompleteness of knowledge about which factors are relevant for prediction" (The Design-Based Research Collective, 2003, p. 5). In our study for example, the unknown learners' perceptions and experiences prior to our research contribute to the implementation of pedagogical changes in the intermediate Spanish courses offered at a Midwest medium-sized research university. In our current writing study, we explore the medium of discussion forums with the idea of facilitating collaboration and communication among students and instructors.

3. Overview of the DBR writing study

3.1 *The Intermediate Spanish courses*

The Spanish courses presented in the two studies were delivered in two different formats: online-hybrid and face2face-blended. Each course was worth 4 credits. Some students were enrolled in the online-hybrid course, called Spanish 201 or 202 Hybrid. The hybrid courses met twice a week in the classroom for fifty minutes and one 25-minute synchronous on-line course with four or five classmates and the instructor. The face2face-blended course, called Spanish 201 or Spanish 202, met three days in a regular classroom and one day in a language computer lab. Each class time meeting lasted fifty minutes.

3.2 *The writing tasks and writing process*

In this study, we considered the perceptions students developed towards peer-editing tasks, which were called “*Un paso más*” (UPM - a step further). The content of these tasks pertained to the writing section included in the textbook used during the study. The writing tasks were in the form of discussion forums posted on Blackboard 9.1, and they were available all semester long for students to complete them before the deadlines marked on their course schedules. A grading rubric was embedded in each discussion forum. The grading rubric allowed learners to become aware of the grading criteria of their entries, which included categories on ideas and content, vocabulary, grammar, and peer review. When grading, instructors had access to an interactive rubric that afforded the option to quickly and effectively select points obtained for each category for each student, and also offered space for feedback for each category and general feedback on the assignment. The procedures for completing the UPM assignments were the following: The first step was for students to complete an online reading with multimedia glosses. Then, students would post their first version of the writing assignment in the form of a discussion forum. Each writing task was aligned with the online reading. The third step was the peer-review process where students needed to post comments on three classmates’ essays, paying close attention to the content in the peer-review rubric. The final step was to rewrite the essay and submit it as the final version.

4. Methodology and data collection

Data collection instruments consisted of: 1) notes from looking into instructor interaction using Blackboard; 2) students’ evaluations collected at the end of the semester; and 3) an online survey. The survey included eighteen items, of which three were open-ended questions, two were true/false statements, and thirteen 5-point Likert-scale items that asked students to rate their experiences working in peer-editing using a scales with ranges from “completely agree” to “completely disagree.” Due to limited space, we only report on the analysis of questions pertaining to the research questions of this article. The iterative cycles of data collected and analyzed emphasized the processes of designing, developing, and evaluating the instructors’ teaching practice in order to improve teaching in an asynchronous environment enhanced by discussion forums.

Study 1 and iteration 1: Because of in-class time limitations, the writing tasks were assigned for homework. Instructors were told to grade students’ final versions using the interactive rubric.

Study 2 and iteration 2: Some changes were added to Study 2 based on reflections and interpretations of the previous study. For example, the schedule for completing the writing task was updated and specific days for submitting the first draft, comments, and final version were marked in the course schedule. The writing tasks were reshaped for instructional clarity with reminders to focus on form.

4.1 Participants in the two studies

4.1.1 Study 1 and iteration 1

This study took place from the last week of August 2012 until the first week of December 2012. It included 133 students (40 males and 93 females) enrolled in different sections of an intermediate course titled “Spanish 201.” All participants reported English as their native language, except for three students who stated having Chinese, Portuguese, and Hindi as their native languages. Three instructors taught the existing course with different delivery formats (online-hybrid vs. face2face-blended). Instructor A was a teaching assistant in the department of world languages and cultures (WLC), but his home department was sociology. He did not have previous experience teaching the online-hybrid course, but he had four years’ experience teaching the face-2-face-blended course of Spanish as a foreign language. Instructor A was male native speaker from Colombia and during Study 1 taught two sections of the hybrid course and one section of the face-to-face course.

Instructor B was a female teaching assistant in the WLC department and her home department was English. She had eight years of language teaching experience. She was a native speaker of American English and had taught Spanish and English in the traditional format delivery. She taught two sections of the face-2-face-blended course of Spanish during study 1.

Instructor C was a female lecturer in the WLC department and originally was from Argentina. She had five years teaching experience teaching Spanish as a foreign language. During Study 1 she taught two sections of the face-2-face-blended course.

Since the material for the Spanish 201 was the same (based on writing skills), and data collected was the same as in the Spanish 201 course (the only difference being the format of the delivery), the data was analyzed together.

4.1.2 Study 2 and iteration 2

This study took place from the second week of January 2013 until the last week of April 2013. The study included 68 students (18 males and 50 females) enrolled in Spanish 202. All participants reported English as their native language, except for three students who were Spanish heritage learners, having been raised at home in Spanish. Instructors B and C from Study 1 taught Spanish 202 in Study 2. Instructor D was a female Spanish native speaker from Guatemala with three years of teaching experience as a teaching assistant in the WLC, but her home department was Human Development & Family Studies. A total of five sections were offered in the face-2face-blended format. Data from the online-hybrid course was not analyzed because participants did not complete the pre-survey and the data was incomplete.

5. Results

The results of this study provide insights for answering two research questions: 1) What perceptions do students have in regard to the process and medium used for peer-review activities (UPM)?, and 2) Do these perceptions change over time?

Quantitative results:

Students were asked to fill out a survey at the beginning of the project (prior to completing any peer-review exercises), at week seven in the middle of the project, and at week fourteen, the end of the project. In the first survey, administered at the beginning of the semester, students were asked if they had experience working with peer-editing. In answering this question, 2 students out of 201 indicated that they did not have any experience previous experience working in peer-editing. The remainder of participants, 199, indicated that they had experience working in peer-editing but only on paper format, No students reported having previous experience working in peer-editing electronically. Of those who had previous experience working in peer-editing, the majority (85%) had done peer-editing in English, while only 15% had experience doing peer-editing in Spanish.

In the survey, students were asked to rate their level of comfort towards their work in the peer-review assignments. Specifically, students indicated their level of agreement with the statement: “I like working in peer

review in writing activities.” Table 1 shows percentages of students’ responses to the statement about their perceptions of their experiences working in the peer-review assignments. All column values show percentages out of the total population for the iteration (Study 1, 133, and Study 2, 68). In response to RQ1, the majority of students reported a positive attitude towards the peer-editing assignments, with 44% stating agreement, while 26.7 indicated disagreement. Furthermore, a considerable percentage of students (30%) remained neutral about their experience.

Table 1. Overall students’ ratings for positive experiences working in peer-editing assignments.

	strongly agree	agree	neutral	disagree	strongly disagree	no response
Pre-Fall 2012	6.8	42.9	27.8	15.8	3.8	0
Pre-Spring 2013	5.9	38.2	32.4	14.7	4.4	2.9
Mid-Fall 2012	5.3	29.3	36.8	26.3	5.3	1.5
Mid-Spring 2013	4.4	45.6	29.4	26.5	8.8	0.0
End-Fall 2012	2.3	33.1	28.6	28.6	3.8	0.0
End-Spring 2013	2.9	47.1	25.0	23.5	0.0	0.0
Total	4.6	39.4	30.0	22.6	4.3	0.7

Although taken together the overall percentages show small differences in regards to the experiences students had with the peer-editing assignments, the perceptions students reported in Spring 2013 show an increase in their positive perceptions, which shows that they increased over time. The ratings for the scale of Agreement grew from 38.2 in the pre-survey, to 45.6 in the mid-survey, and 47.1 at the end of the project. The increase in positive perceptions can be observed in Figure 1.

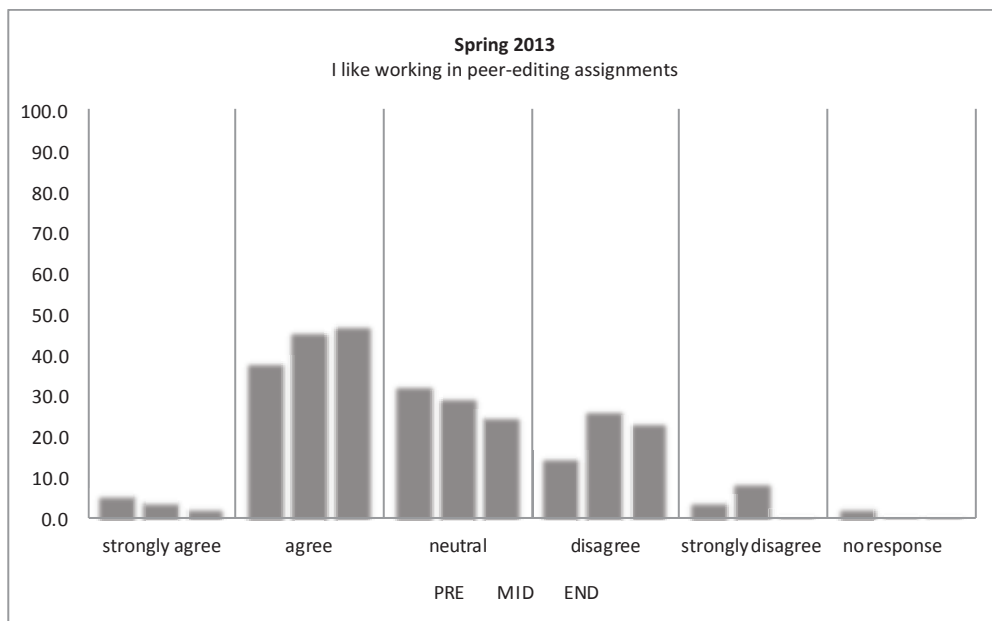


Fig. 1. Overall students’ ratings of peer-editing for Spring 2013

The data from Table 1 can be disheartening if we consider that 77.11% of students selected strongly agree, agree or are neutral at the beginning of the project (liking the work of peer editing). However, this figure is slightly lower in the middle of the semester with 74% of students selecting strongly agree, agree or neutral, and at the end of the semester it went down to 67%. Even though at the end of the semester only 29% of students (59 students out of 201) indicated not liking the peer-editing assignments (i.e., selected disagree or strongly disagree), this lower percentage can be further explained in the qualitative data. Specifically, the qualitative data shows a connection between the lower percentages and teaching practices.

5.1. Qualitative results

Analysis of the student survey for the first iteration indicated three main constraints. The most common constraint was the difficulty of remembering deadlines. Their day-by-day schedule marked the due dates for completing the first and final steps of the writing task, but the schedule did not indicate the due dates for the peer-editing. The second most common challenge was the consideration that peer-editing outside of the classroom was busy work that interfered with their need to study for their exams and be ready with other assignments. As one student stated, *“To be honest, I almost always forget to do the revisions. These things are not on the course calendar and I rely on that heavily when planning my schedule, and in turn completing my schoolwork.”* Finally, students felt they needed more assistance not only from other peers, but also from their instructor before submitting their final writing version.

For the second iteration, changes were made in the day-by-day schedule by adding a deadline to submit the peer-editing task. However, in general terms participants indicated three main challenges. First, they commented on the need for their instructor’s assistance before submitting the final version. As noted by one student, *“It would be nice to have the teacher reviews back before the next one is due as to learn from our mistakes.”* Secondly, some students’ overall linguistic proficiency was high while other students’ linguistic ability was poor. This linguistic difference was good for the students with insufficient linguistic proficiency, but it did not help more proficient students. Finally, students needed to give comments to three different students, and even if they recognized that it was a good practice to improve their writing, they thought that commenting on three writing pieces was too much because of the time it took.

As part of the DBR process, one of the researchers carefully analyzed the instructors’ interactions using Blackboard, as well as students’ evaluations at the end of the semester. In general terms, only instructor C was consistently using Blackboard to send reminders to their students about the deadlines. In addition, using the space in the grading rubric, she provided extended feedback for the Spanish errors that her students had made. That is, she was giving a grade not just using the interactive rubric, but also providing extended comments for each of the grading categories (i.e., content, vocabulary, grammar, and peer editing) with feedback for each student. Students indicated in the course evaluations that they appreciated the writing practice and were very positive about the discussion forums and editing process. The other instructors used Blackboard occasionally to announce scholarships or other events, but they only occasionally ever used it to send reminders about assignments. Students’ evaluations for instructors A, B and D were more negative about writing skills and they expressed dissatisfaction with the discussion forum grades.

6. Theoretical implications and conclusions

Our findings show that the percentage of students (77.11%, 74%, and 67%) who indicated positive experiences working in peer-review tasks outnumbered the percentage of students (19.4%, 32%, and 29%) who expressed dissatisfaction working in these tasks. This was true for all three intervals for the interventions at three different points of the semester. From a pedagogical perspective, the primary benefits of incorporating collaborative writing in an intermediate Spanish course involve the ability to establish a more ‘open’ learning community and allow students to provide feedback to their peers.

Given that one of the goals of this study is to use DBR to implement pedagogical changes in an intermediate Spanish course by considering unknown factors a priori, we now present four design principles that emerged from the data of the survey:

- When working in peer-review tasks, it is imperative that learners are provided guidelines that clearly indicate what and how to edit assignments completed outside of the classroom.
- Instructors might consider alternating in-class and out of class peer-review tasks.
- Instructors' teaching practices play an important role in improving students' writing abilities.
- Students' attitudes towards peer-review tasks may become more positive when changes are made to facilitate the review process with consideration to the medium used.

As Wang and Hannafin (2005) noted, DBR differs from other research methods in that it aims at the development of design principles and theory. Findings from this study suggest that further research is needed in the area of L2 collaborative e-writing to more comprehensively understand the effects of the medium used in the process of collaborative writing.

References

- AbuSeileek, A., & Abualsha'r, A. (2014). Using peer computing-mediated corrective feedback to support EFL learners' writing. *Language Learning & Technology* 18 (1), 76-95. Retrieved from <http://llt.msuedu/issues/february2014/abuseileekabualshar.pdf>
- Design-Based Research Collective. (2003). Design-based research: An emerging paradigm for educational inquiry. *Educational Researcher*, 32(1), 5-8.
- Foster, P. & Ohta, A. S. (2005). Negotiation for meaning and peer assistance in second language classrooms. *Applied Linguistics*, 26 (3). 402-430.
- McKenney, S., & Reeves, T. C. (2012). *Conducting educational design research*. New York: Routledge.
- Oskoz, A., & Elola, I. (2011). Meeting at the wiki: The new arena for collaborative writing in foreign language courses. In M. J.W. Lee & C. McLoughlin (Eds.), *Web 2.0-based E-learning: Applying social informatics for tertiary teaching* (pp.209-227). Hershey, PA: IGI Global.
- Oskoz, A. (2009). Learners' feedback in Online Chats: What does it reveal about students' learning? *CALICO Journal*, 27(1), 48-68.
- Pardo-Ballester, C., & Rodríguez, J. C. (2009). Using design-based research to guide the development of online instructional materials. In C.A. Chapelle, H. G. Jun, & I. Katz (Eds.), *Developing and evaluating language learning materials* (pp. 86-102). Ames, IA: Iowa State University.
- Rodríguez, J.C., & Pardo-Ballester, C. (2013). Design-based research in CALL. *CALICO Monograph Series*, 11, 1-233.
- Wang, F., & Hannafin, M. J. (2005). Design-based research and technology-enhanced learning environments, *Educational Technology Research and Development (ETR&D)*, 53(4), 5-23.