Paradoxical effects of feedback in international online reciprocal peer tutoring

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ARTICLE INFO

ABSTRACT

This paper reports an online reciprocal peer tutoring project for improving language competence in Spanish and English. Students aged 9–12 years from Scotland and Catalonia were matched to act as tutors in their own language and as tutees in a modern foreign language. Students were intended to improve both their first language (through helping the tutee) and a modern language (with their tutor's help). The methodology combined a quasi-experimental design and a qualitative analysis of texts. For Catalan students, pre-post test results indicated statistically significant improvements in reading comprehension (while acting as tutors) and writing (while acting as tutees). Scottish students improved only their writing (acting as tutees). Analysis of the texts showed that when more support was given, the tutor had more learning opportunities, but then there were fewer opportunities for the tutee, and vice versa. Thus the tutee learned more with less elaborated feedback, leading to fewer opportunities for tutor improvement. This paradox could be resolved by adjusting the scaffolding support given by tutors, to create a balanced interactive learning context for both members of the pair.

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1. Introduction

Constructivist teaching and learning perspectives (Wertsch, 1993) and communication approaches related to pragmatic language (Milian & Camps, 2006) both agree on the importance of building meaningful and authentic contexts for learning. In these, functional communication is required, with a real audience to give meaning to practices and enhance learning from reflection on them. However, traditionally schools have focused on somewhat detached exercises in spelling and syntax, rather than on using language as a practical communicative tool to achieve social purposes which can go beyond the classroom (Camps, 2003; Halliday, 1982). More recently, the progressive development and use of virtual environments (Mominó, Sigalés, & Meneses, 2008) have enabled the opening of communication between students from different countries, promoting foreign language use in authentic collaborative contexts and enhancing communication and learning by interaction among equals.

This paper provides data on reciprocal online peer tutoring which is intended to improve both Spanish and English languages through writing in a modern foreign language (L2) as tutees and correcting text in a first native language (L1) as tutors. In our multilingual contexts, for many Catalan students Spanish is not their first language, nor is English for some Scottish pupils. However, for practical purposes, we will consider Spanish and English as L1 and L2 for Catalan students; and vice versa for the Scottish. In this project, Catalan students had the role of Spanish language tutors for Scottish students, checking their text through a virtual platform and providing support for improvement. The Scottish pupils were English language tutors for the Catalan students.

In previous research, both quantitative analysis (Thurston, Duran, Cunningham, Blanch, & Topping, 2009) and qualitative analysis (Duran, Blanch, Thurston, & Topping, 2010) showed how students who participated improved in both languages (unlike the control groups).

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However, a deeper statistical analysis showed that the Spanish improved more. The substantial improvement of the Catalans as tutors showed the importance of the degree and type of assistance they offered, which was greater than that offered by the Scottish. Catalan tutors provided more scaffolded support requiring more active reflection and discussion from both the tutor and the tutee. However, further analysis was required. Thus we designed the present study, which introduced specific training for peer tutors. It has been frequently noted that initial training is linked to the quality of support tutors offer to their tutees (Cohen, Kulik, & Kulik, 1982). The objective of this research was to investigate the effects of these peer supports in improving language skills in both languages.

2. Background and brief theoretical foundation

Peer tutoring consists of people of similar social status helping others to learn and learning themselves by teaching (Topping, 2000). Online peer tutoring is peer interaction typically at a distance through Information and Communication Technology (ICT) which promotes mutual learning. In recent years, many investigations have concluded that exchanges between students from different countries can facilitate the learning of languages and knowledge building (e.g., Vinagre, 2010). The development of technological tools has been described by Godwin-Jones (2003). These include more traditional means of email, discussion forums and chat, but also more recent methods such as blogs, wikis, and RSS feeds. This has led to what has been called TPALL (Technology for Peer Assisted Language Learning), with rich and varied practices (Dehkinet & Topping, 2010).

Recent studies underscore the importance of the quality of interaction between students as one of the key issues for peer learning (Storch, 2002). It is important to organize student interactions to enhance real learning opportunities. Peer tutoring in this study is based on pairs of students playing a double asymmetrical role – both tutee and tutor, in a structured framework planned by teachers (Duran & Vidal, 2004). This way of learning is very suitable for the development of receptive and expressive language skills in both L1 and L2, the students learning through writing and revision of written texts (Duran et al., 2010). The current project is a variant of "email dialogue journaling" as described by Shang (2005), but in this case between students from different countries. It also has some similarity with "tandem learning" (Little et al., 1999; Vinagre, 2010). However, instead of using email, students used a virtual platform on which each pair exchanged their texts and their corrections.

Concerning writing in particular, several authors (Castelló, Iñesta, Pardo, Liesa, & Martínez-Fernández, 2010; Dysthe, Samar, & Westrheim, 2006; Storch, 2002) indicate that proofreading in pairs assists reflection on the writing process and improves the quality of texts, whether in first or foreign languages. This relates to, but is not part of, the current project. Collaborative review, as opposed to individual review, involves a greater degree of revision and changes in the text (Allal, 2000; Lindblom-Ylänne, Pihlajamäki, & Kotka, 2006) through viewing the text from another perspective (Yang, 2010). Again this relates to, but is not part of, the current project.

Turning to factors that are part of the current study, Cassany (2002) points out that correcting the text of other students promotes self-regulation, provides opportunities for linguistic reflection and allows the teacher to focus on the writing process. Also, writing to communicate with a partner is not the same as writing for the teacher. Several authors (Camps, 2003; Cassany, 2002; Milian, 2003) agree that the sense of audience is inherent in peer practices and that writing is a process of social interaction and negotiation of meaning between writer and reader (Nystrand, 1989; Prior, 2006). Both of these were incorporated in the training provided for participants in this study.

From a socio-cultural perspective, providing assistance within the zone of proximal development is a function of the collaboration (Wells, 1999) which underpins the effectiveness of peer review in the learning of L1, since the student who performs the tutor role (and is an expert in L1) should review the peer text and offer adjusted support including text correction to improve its quality. This process requires effort to clarify doubts and rework explanations, and is tailored by the tutor, requiring excellent tutor comprehension of the text. This supports the idea that in teaching their tutee, the tutor also learns (Cho & Cho, 2010; Cortese, 2005; Roscoe & Chi, 2007). On the other hand, the peer review also promotes L2 learning, because students acting as tutees rewrite the text based on the immediate feedback of the tutor, adapted to the tutee's needs (Min, 2006; Nelson & Schunn, 2009).

However, not all peer review is equally effective (Gibbs & Simpson, 2004; Gielen, Peeters, Dochy, Onghena, & Struyven, 2010; Nelson & Schunn, 2009). Research in this area warns of the difficulties of some students in making objective assessments of their peers (Lindblom-Ylänne et al., 2006). Social aspects between pairs, especially those related to cultural knowledge, can also impede communication (Vinagre, 2005). It is therefore necessary to take into account the quality of aid or feedback (Liang, 2010; Nelson & Schunn, 2009). A review of studies on the quality of feedback (Topping, 2010) concludes that non-directive feedback is more effective for students with high skills, whereas more elaborate feedback might be suited to students with low abilities. Consequently, it highlights the importance of prior training of the tutors (Min, 2006). In summary, there is a need on the one hand for greater effort in tutor training to provide support for linguistic reflection, and on the other to analyze the different types of feedback offered and their relation to the improvement of language competence in both languages.

In the present investigation tutors were trained to note errors and provide suggestive but not directive error correction for the tutee, who then thought about the issue, developed their own response to the problem and corrected the error themself – hopefully learning by succeeding. Peer tutors were to avoid giving the answer or solution directly. Instead they offered assistance requiring the active participation of the tutee, such as merely marking the error or more assertively marking the error and giving a clue (by reminding, questioning, explaining or modeling). Finally, it was considered important to give encouragement to the partner for their progress and efforts in the proper use of the second language.

3. Objectives and research questions

The objective of this research was to analyze whether reciprocal peer tutoring with students from the fifth and sixth grades in Scottish and Catalan schools produced improvements in languages L1 and L2. The questions guiding the research were:

1 What are the effects of reciprocal peer tutoring in improving first language competence?
2 Can reading the text critically and providing feedback improve the learning of the first language in the tutor? Language competence data were collected at pre- and post-test. It was expected to find statistically significant differences and understand the factors underpinning the analysis of texts and the quality of feedback offered by the tutor.