B-learning in an EFL college class: Creativity, critical thinking and collaboration

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1. Introduction

The current interest in pedagogical applications of digital technologies for language learning is mainly due to an increased awareness of their potential for language learning coupled with the growing number of computers and easier Internet access in many educational contexts worldwide. This is also accompanied by a general increase in computer literacy among teachers and learners. Since the 1980s, issues related to the use of information and communication technology (ICT) in the field of second language acquisition (SLA) have moved from the margins to the mainstream and at present they are a central concern in SLA research, theory and practice (Chappelle, 2005). This is reflected in the varied body of literature dealing with the potential relationship between ICT and language learning pedagogy.

It is increasingly recognised among researchers and practitioners in Applied Linguistics and SLA that the changes brought about by the introduction of ICT in traditional, face-to-face classroom practices and distance learning programmes should be accompanied by a systematic revaluation of the conception of learning and teaching processes. These transformations call for a more flexible curriculum and a new understanding of how knowledge is constructed, as well as an increased focus on autonomous and collaborative learning. Changes need to be made in areas such as curriculum design, communication modes, class management, teachers' and students' roles, and task design (Chappelle, 2005; Gitsaki, Ya'akub & Honan, 2010). An appropriate use of networked computers and the World Wide

Web can bring about dramatic changes in pedagogical practices and help to improve the quality of higher education (Bender, 2003; Bruffee, 1999; Fitch 2004). Nonetheless, in spite of the alleged benefits of computer-mediated education, there is a need for more in-depth empirical research on the processes of ICT applications for language learning in particular contexts (Beatty, 2003; Chappelle, 2005; Gitsaki et al., 2010). This research should seek to yield insights into how best to use new technologies in different language learning settings in an integral way. As regards university settings, Web-based learning is still not a common practice in higher education around the world, and Argentinean universities are no exception (Lion, 2006; Salbusky, 2007). The pedagogical use of digital technologies in university contexts deserves further attention and it is the focus of the study reported here.

The challenge for researchers and educators alike is to apply, analyse and assess Web-based language learning (WBLL) in an integral manner and with a strong theoretical foundation focusing on particular educational settings (Egbert, 2005). The main issue to be studied is *how* variables such as *context, task, tool, language* and *people* influence learners' achievement in CALL. Egbert (2005) considers these variables to be the key components of the CALL equation in learners' achievement. She also warns against the tendency to evaluate technologies rather than language learning and stresses the importance of examining our research and pedagogical perspectives because the outlook of the researcher will determine the outcome, the implications and the conclusions he or she arrives at. In this respect, Egbert argues that "a strong foundation in SLA research and theory will help us to explain our findings in terms of language gains, even when the measure of such gains is complicated" (p. 7). The need for research studies to adopt a holistic perspective of L2 learning and to be framed along sound theories of SLA and methodological approaches is thus clear. The present study was in part meant to satisfy this need. It is grounded in communicative and socio-constructivist approaches to L2 learning and focuses on *how* the introduction of Internet-based activities into traditional face-to-face classroom work supports collaboration among college

learners and contributes to the application of higher order thinking skills in the completion of a b-learning project.

2. Context and participants of the study

This study formed part of a larger research project (Gava, 2012) which was conducted at the Faculty of Languages of the National University of Córdoba (UNC), Argentina, over a period of ten weeks. Twenty-four students participated in this study. These students belonged to an intact English Language II class, which is a compulsory course of the undergraduate study programmes in EFL Teacher Training, Translation and Research at the Faculty of Languages. The students had access to a multimedia classroom with networked computers.

3. Research questions and objectives

The purpose of the present study is to explore specific ways in which the use of blogs may contribute to the development of two skills of critical importance to L2 undergraduate learners: collaborative language learning and the use of higher order thinking (i.e. creativity and critical thinking skills). To this end, it sought to answer two main questions: (a) Can group blogging foster students' creativity, critical thinking and the collaborative construction of knowledge in an EFL undergraduate class? (b) If so, how does group blogging contribute to the development of students' creativity, critical thinking and the collaborative construction of knowledge in that EFL class? In order to explore possible answers to these questions, we set the following main objectives:

- To analyse the participants' application of critical thinking skills, creativity and collaboration in the construction of knowledge of the target language in the group blogs.
- To develop a classification of instances knowledge development in an EFL online learning task, based on the analysis of the blog entries.

4. Research design

The design of this study is based on a socio-constructivist and communicative approach to L2 learning and it takes into account the variables included in the CALL equation proposed by Egbert (2005): *context, task, tool, language* and *people*. Thus, the WBLL *task* was integrated in the language activities of a traditional, face-to-face class *context*. These tasks consisted in an online collaborative project carried out with the help of an online communication *tool*: blogs. This tool was chosen for its pedagogical potential (Campbell, 2003). The free online publishing software chosen was Blogger, which allows users to customise the layout of entries, insert written texts, pictures and hyperlinks, upload videos and interact with readers through a comments section. Thus, this tool facilitated the development of the language task and the collaborative participation of learners.

The activities were planned to suit the L2 *language* level of the *students* in the course. The participants formed six groups of four students to create blogs on topics related to natural and man-made disasters and their impact on the environment. These topics formed part of one of the content units in the course syllabus. The focus of analysis was the participants' language output in the blog entries. A qualitative research approach (Hatch, 2002), which allowed for an inductive analysis and a detailed description of the findings, was followed for the analysis of the data.

5. Research findings

As a result of the analysis of the blog entries, a threefold classification was developed. The classification includes patterns which indicate the participants' application of critical thinking skills and collaborative interventions in the group blogs. It seemed appropriate to frame this classification following the description of intellectual activity in Bloom's Taxonomy (1956/1971) because this taxonomy captures different levels of cognitive ability, including *knowledge* at the lowest level of mental activity, *comprehension, application, analysis* and

synthesis as representing increasingly more complex levels of intellectual activity, and *evaluation* as the highest level of critical thinking skills. The three main patterns found in the data were *creativity in the use of resources, L2 learning awareness,* and *collaboration through reflection and evaluation.* These types of patterns include several sub-patterns that describe the various manners in which critical thinking skills and collaborative knowledge were manifested in the students' group blogs. Frequency counts are not included in this report since the focus here is only the identification and description of each pattern of students' L2 online output.

As regards the first pattern of this classification, i.e. *creativity in the use of resources*, the findings reveal the learners' creativity in the presentation and arrangement of information and multimedia resources used in the blog entries. Twelve sub-patterns of learners' creativity emerged from the analysis of the blog entries (see Table 1). Creativity is an indication of the learners' application of critical thinking skills, mainly because it is based on *knowledge* —the foundational level of all intellectual activity in Bloom's Taxonomy— and also because it reflects two other levels of intellectual activity: *comprehension* and *application.* The learners' *knowledge* of the topic is reflected in the information included in the entries. In other words, what was included and what was left out show both the participants' understanding of the topic and their recognition of relevant ideas. Moreover, the creativity in the use of resources, through the definitions, summaries and related illustrations chosen, shows the students' *comprehension.* Instances of *application* were identified in the data selection made by the learners in order to complete the language task with minimum direction on the part of the instructor. All in all, the frequent use of multimedia resources to develop the topics of the blogs as well as the selection and creative arrangement of information shows the learners' application of critical thinking skills.

Table 1: Sub-patterns of learners' creativity in the use of resources

I. Picture + definition (natural phenomena or environmental problems)

II. Picture + definition (natural phenomena or environmental problems) + focus on content-specific vocabulary (highlighted terms or hyperlinks to dictionary definitions)

III. Video + definition (natural phenomena or environmental problems) + focus on content-specific vocabulary (highlighted terms or hyperlinks to dictionary definitions)

IV. Video related to the content of an entry + comment or question to peers

V. Picture + summary of course reading materials

VI. Picture + summary of course reading materials + focus on content-specific vocabulary (highlighted terms or hyperlinks to dictionary definitions)

VII. Picture + summary of online materials

VIII. Picture + summary of online materials + focus on content-specific vocabulary (highlighted terms or hyperlinks to dictionary definitions)

IX. Picture + summary of printed sources + focus on content-specific vocabulary (highlighted terms)

X. Video related to the content of previous or following entry

XI. Joke + comment

XII. Picture + comment

As regards the second pattern, particular features which indicate the participants' *L2 learning awareness* were identified in most blog entries. These features include the focus on semantic fields through content-specific vocabulary hyperlinked by the students to dictionary definitions and glossaries, and also the use of different resources to develop the topic of group blogs, such as online articles, videos, encyclopedias, dictionaries, a course reading packet and various websites. The learners' work on lexis and the use of these resources evidence their critical thinking skills at the levels of *application, analysis* and *synthesis,* three of the six strata of cognitive abilities identified in Bloom's Taxonomy.

The learners' *application* of informative knowledge was observed in the selection and use of data to complete the language task with a minimum of teacher's direction in a context

which was new to them, i.e. blogging. It is worth mentioning that practically none of the students had created a blog previous to their participation in this study. Second, they organised the content of entries clearly and coherently, which shows the students' prior *analysis* of the material. This in turn seems to suggest that the learners engaged in intellectual activity through the *synthesis* of information and selective use of texts and multimedia resources.

Ten combinations of features which are indicative of the students' L2 awareness and of the possibility that they were developing their L2 skills through the completion of this b-learning project were identified in the students' blogs (see Table 2). These include definitions of key terms and concepts, summaries of topics and subtopics, focus on content-specific vocabulary through the use of hyperlinks, highlighted terms and glossaries, and hyperlinks to websites.

Table 2: Sub-patterns of learners' L2 awareness

I.	Focus on lexis: highlighted content-specific vocabulary and collocations.
II.	Focus on lexis: hyperlinks to dictionary definitions of content-specific vocabulary.
III.	Summary of course reading materials + highlighted content-specific vocabulary and collocations
IV.	Summary of course reading materials + hyperlinks to dictionary definitions of content-specific vocabulary
V.	Summary of other printed sources (not included in the course reading packet)
VI.	Summary of online materials + highlighted content-specific vocabulary
VII.	Summary of online materials + hyperlinks to dictionary definitions of content-specific vocabulary
VIII.	Summary of online materials + hyperlinks to websites or online articles
IX.	Glossary of content-specific vocabulary
X.	List of useful links

Collaboration through reflection and evaluation is the third category in the classification of instances of critical thinking and collaboration in the L2 task carried out

through blogging in this EFL class. It was found that group members stated their opinions by assessing ideas and information and making recommendations for the readers of their blogs. They also posed questions at the end of entries; readers (classmates in this case) answered these questions and sometimes also praised their classmates' work. These types of contributions seem to have served a dual function. Through the comments and questions, learners assessed the ideas presented in blog entries, and at the same time, interacted with classmates, which in turn contributed to the further development of the blog's topic. Blogging, therefore, allowed this group of learners to engage in a reflective online dialogue, an activity that appears to have contributed to the development of collaborative knowledge. These results show that the participants in this study applied higher order thinking skills, not only through analysis and synthesis, as identified in the previous category, but also through *evaluation*, the highest level of intellectual activity in Bloom's Taxonomy. The four patterns of collaboration through reflection and evaluation found in the data are included in table 3 below.

Table 3: Sub-patterns of collaboration through reflection and evaluation

I.	Recommendations to visit websites
II.	Questions to peers —with or without a preceding reflective comment
III.	Peer comments in response to questions
IV.	Spontaneous peer comments or opinions about the content of entries (i.e. the comments and opinions were not prompted by peers' questions).

The threefold classification presented above accounts for the various ways in which the learners appeared to have developed knowledge through this online medium. More specifically, the learners' creativity in the use of resources, their L2 learning awareness and collaboration in the L2 task became apparent in their use of multimedia resources, written texts and hyperlinks, as well as the questions and reflective comments posted in blog entries, all of which contributed to the development of each of the topics in the group blogs. Thus, these learners' L2 written output reveals *how* this online medium may be conducive to the

development of critical thinking and the collaborative construction of knowledge in the language class, which are key features in the joint production of knowledge (Beatty, 2003; Bender, 2003; Bruffee, 1999; Lion, 2006; Warschauer, Shetzer & Meloni, 2000).

6. Conclusion

This study has shown that the use of blogging in an EFL college class promoted the students' creativity, critical thinking and the joint construction of knowledge in the target language. Two major implications for WBLL can be derived from this study. Firstly, as the findings indicate, group blogging to complete an L2 project encouraged collaborative interaction among the EFL learners and allowed them to make creative and meaningful use of a variety of data and multimedia resources available on the World Wide Web. In this respect, Warschauer (1997) has pointed out that "the most potent collaborative activities involve not just finding and using information, but rather actively making use of technologies to construct new knowledge together" (pp. 476–477). The second main implication is that student bloggers can become active constructors of their own learning and learning environments. In other words, students can use blogging not only to interact with one another and experiment with hypertexts and multimedia but also to create their own configurations of learning materials, which might be conducive to the application and development of higher order thinking.

This study also presents some limitations in terms of scope and context of application. In the first place, this research was carried out with a relatively small number of participants, which facilitated detailed account of the data; however, the results may not be generalised to other populations. In the second place, although the threefold classification of knowledge development created here captured a variety of patterns of students' interaction and creative use of online resources for language learning, it may not fully apply to the dynamics of online language tasks in other collaborative environments different from blogging, such as WebQuests, wikis or social networks, to name just a few.

In light of the implications and limitations of this study, some suggestions for further research emerge. This study has proposed a set of descriptive categories grounded in the data. If further explored, these classifications may throw light into virtual team dynamics in EFL classes. Moreover, by interweaving aspects related to collaboration, the application of critical thinking skills and learners' autonomy in virtual learning environments, future research may help teachers and students alike to make more effective uses of online environments for EFL learning.

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