Fostering collaboration in CALL: Benefits and challenges of using virtual language resource centres

Liliana Cuesta Medina[1] and Claudia Patricia Alvarez[2]

Abstract. This paper presents the findings from a qualitative study on collaborative CALL design and implementation carried out with two groups of postgraduate language-teacher trainees who designed and piloted nine virtual language resource centres (VLRC) at 16 educational institutions of different levels and contents for an academic year. The project was conceived with the collaborative nature of online environments and the design principles of Paquette (2002) in mind. Data analysis revealed that both teacher trainees and their learners understood VLRCs as supporting the development of learner autonomy through the use of Web 2.0 technologies, various scaffolding agents, and instruction in learner strategies. The design of the VLRCs helped learners engage in collaborative projects related to their contexts and needs to achieve their learning objectives. However, some learners experienced technology-generated anxiety, which limited their usage of the VRLCs, as well as their engagement with and achievement in the collaborative activities planned. Likewise, some trainees experienced technostress stemming from lack of expertise with learning management systems (LMSs) and design of learning objects. Various possibilities for improving the design and implementation of VLRCs are recommended, such as including ICT training tutorials and activities that cater activities appropriate to a broader variety of learning styles and language skills.

Keywords: collaboration, CALL, virtual language resource centres, teacher education.

1. Universidad de La Sabana; liliana.cuesta@unisabana.edu.co.

2. Universidad de La Sabana; claudiap.alvarez@unisabana.edu.co.

How to cite this article: Cuesta Medina, L., & Alvarez, C. P. (2014). Fostering collaboration in CALL: Benefits and challenges of using virtual language resource centres. In S. Jager, L. Bradley, E. J. Meima, & S. Thouësny (Eds), *CALL Design: Principles and Practice*; *Proceedings of the 2014 EUROCALL Conference, Groningen, The Netherlands* (pp. 52-58). Dublin: Research-publishing.net. doi:10.14705/rpnet.2014.000194

1. Introduction

The ubiquitousness of Web 2.0 technologies and the possibilities provided by technology enable the creation of Virtual Resource Centres (VRC), online learning environments that offer learners access, synchronously or asynchronously, to a number of resources: instructors and tutors, subject matter experts, training managers and professors acting as designers (Paquette, 2002, p. 1). The same affordances can also be made available through VLRC, in which learners are granted access to collaborative learning practices and learning objects tailored to their language proficiency level, in addition to various types of interaction facilitated by the use of Web 2.0 tools (Alvarez & Cuesta, 2012). This paper examines the instructional design process followed in the creation of nine VLRCs. We elaborate on the infrastructure of the online environments and report on the collaborative learning practices carried out in the design and piloting of these VLRCs.

1.1. Instructional design process for VLRCs

The development of VLRCs drew upon learner needs identified by direct observations, informal interviews and the evaluation of learners' academic performance in the EFL subjects. This needs analysis revealed that the learners needed to strengthen their communicative skills and improve their learning autonomy through cognitive and meta-cognitive strategies as a means of "transferring responsibility for aspects of the language learning process such as setting goals, selecting learning strategies, and evaluating progress" (Cotterall, 2000, p.110). To meet these pedagogical needs, the teacher trainees were encouraged to follow a model based on Paquette's (2002) principles for creating virtual resource centres. Those principles were transferred to the VLRCs, as illustrated below.

1.2. Virtual resource centres

Virtual resource centres:

- represent learning systems centred on the learner. They foster the development of learner autonomy through learner strategy training;

- use distance and online instruction as assets to facilitate lifelong learning. The usage of metacognitive strategies (planning, monitoring and evaluating) (Appendix A) aids the development of a specific communicative skill

enabling students to become more strategic, self-reliant, flexible, and productive in their learning endeavours (Scheid, 1993);

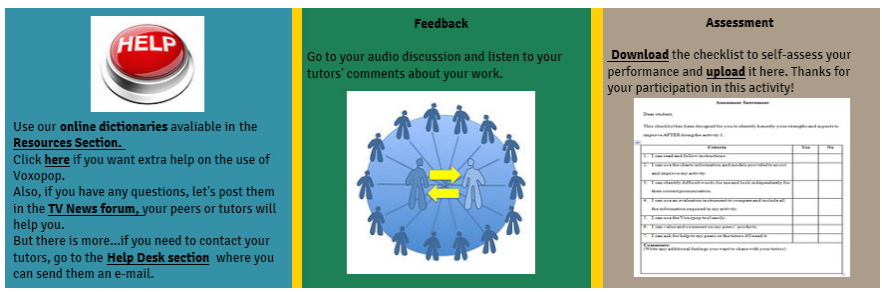
- contribute to the creation of a sense of community to increase student satisfaction through the inclusion of problem-solving activities that require learners to take roles (group leaders, providers, helpers, editors) and to participate in collaborative activities, even though participants belong to different surroundings and/or cultures;

- constitute a learning system that offers various ways of accessing and processing information. VLRCs allow for flexibility (i.e. learners need not follow a pre-selected path) and ubiquity (i.e. providing students with access whenever and wherever it is required);

- propose a constructivist pedagogy. Collaborative projects lead students to build understanding of a particular topic or context-related issue through student-centred learning activities involving negotiation of meaning and learning agent interaction (Alvarez & Cuesta, 2012);

- support the learning process through various seamlessly integrated resources, tools, and documents in a supportive scaffolding environment.

Figure 1. Supportive scaffolding in activity 1 LO1[3]



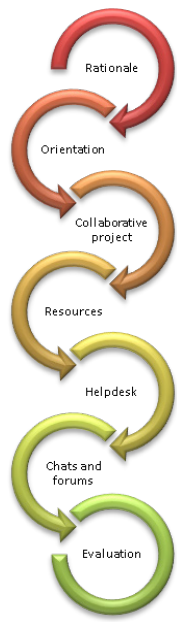
1.3. Components of VLRCs

VLRCs seek to provide students with extended learning practice opportunities related to the development and strengthening of a specific language skill or sub-skill and to the transfer of learning strategies to real-life application (e.g. strategies

3. Retrieved from http://budy12.wix.com/speakingcorner#!untitled/c1o4r

for public speaking, ESP, academic development and study opportunities, critical reflection on social and contextual issues). Open management systems that suited the targeted audience needs were selected by focusing on basic web design principles such as self-intuitive navigation, page layouts, text usage, and background colours and textures (Appendix A). To structure these centres, teachers included the components depicted in Figure 2, which were adapted depending on the target populations and their pedagogical needs for online learning (Siragusa, Dixon, & Dixon, 2007).

Figure 2. Components of the VLRCs



2. Method

In this qualitative study conducted in a private university setting, 16 teacher trainees working at primary, secondary, university, and technical levels in the private or public sector were required to create a set of nine VLRCs for groups of students of similar ages, linguistic needs, and proficiency levels, collaboratively or individually. The researchers, in the role of instructors, assisted the teacher trainees in selecting LMSs to host their VLRCs and structuring them to include the components suggested in the target course. All trainees were in-service teachers from elementary, secondary schools, and/or universities. The study examined several data sources (including questionnaires, surveys, and protocols). Data

analysis was conducted using the grounded theory approach (Corbin & Strauss, 2008). Validity was ensured by following triangulation procedures in which a comprehensive use of qualitative data analysis strategies was present in all the stages of the study. These factors were then merged, examined, and theorised in the light of the main research question: *How might the usage of a VLRC facilitate effective collaborative learning practices?*

3. Discussion

3.1. Support source: blending interaction and autonomy development

In this study, the VLRC is understood as a catalyst that facilitates the development of collaborative learning practices through two main characteristics: autonomy and interaction. In this sense, the VLRC represents an opportunity to access and use various Web 2.0 technologies, customise learning experiences mediated by various scaffolding agents (e.g. peers, instructors, learning objects), and raise awareness regarding a different way to generate effective instructional processes, focused on the needs of the context. Data analysis showed that, in accordance with Little (1991), the first steps learners made towards autonomy depended on the development and exercise of capacities for detachment, critical reflection, decision making and independent action. Moreover, learners were able to gain awareness about their responsibilities to determine the purposes of their learning, as each monitored their respective progress and evaluated the outcomes. Trainees were able to make links between the different modes of interaction (Roblyer & Ekhaml, 2000) and learning opportunities offered in the VLRCs' collaborative environments, in which they self-accessed tools and procedures and were able to smoothly transmit these practices to their learners.

3.2. Mechanism to face the digital divide

The implementation of VLRCs served a myriad of purposes. Firstly, it was a mechanism to bridge the digital divide existing in many of the educational contexts where the VLRCs were implemented. In five of the participating institutions, learners had not previously had access to information technologies to assist education, either because the existing infrastructure was faultily used or because access to resources was limited.

Secondly, among the challenges encountered during the study, trainees reported various types of difficulties: technical, procedural, and attitudinal. They claimed to have limited experience in designing collaborative activities, even though they had

previously received such training in their MA studies. They reported having only partial knowledge of relevant Web 2.0 tools and other target resources, as well as a lack of expertise in the technical management of the target LMS platforms. They thought that the design of collaborative learning activities was moderately difficult from an instructional point of view, either because they had not had sufficient experience in planning for collaboration or because they had misconceptions regarding what collaboration entailed. In their implementation stages, they agreed that when a design was faulty, their learners displayed limited participation and engagement in the language learning activities. Additionally, as they engaged in the process of design for collaboration, these various described challenges generated technostress, i.e. technology-generated anxiety behaviours in the trainees (Rosen & Weil, 1997).

4. Concluding remarks

The design and usage of VLRCs in diverse educational contexts provides teachers and learners with a variety of opportunities that can assist teachers to extend and improve their language learning practices. Even so, the present study also revealed several challenges and opportunities in the design and implementation of VLRCs that the language teacher must learn to take up effectively. The results of the present study suggest, firstly, that there is a need to shift paradigms with regards to collaborative work, which often remains unknown to practitioners as they confront the design, implementation, and even evaluation stages. Successful engagement with and openness to collaborative activities may often require specialised sequential training, awareness-raising, and involvement by different parties engaged in the process (trainees, learners, and institution's stakeholders), based on the target goals and required outcomes for the institution and the language classroom. It should be emphasized that this process might turn out to be time-consuming.

Additionally, for the implementation of VLRCs to be effective, collaborative activities should be planned to cater to various learning styles and language skills, according to the needs identified, and there should be a congruent plan for the use of novel technologies and pertinent features that might serve to capture and hold students' attention and interest (ref. interactivity, multimodal sources) throughout their language learning processes. This would also require the educational institution to generate policies for the effective inclusion of technology, viewing it as a source of support that assists language pedagogy. For us, the collaborative use of VLRCs suggests prospective language self-access initiatives as a complement to face-to-face language instruction or as a supplementary language learning plan

for groups of learners who would access language learning through other means. Thus, we believe that being cognisant of what this process implies would assist both teachers and learners along the paths to be taken.

References

Alvarez, C., & Cuesta, L. (2012). Designing for online interaction: Scaffolded and collaborative interventions in a graduate-level blended course. *The EUROCALL Review, 20*(1), 1-9. Retrieved from http://eurocall.webs.upv.es/documentos/newsletter/papers_20(1)/02_alvarez.pdf

Corbin, J. A., & Strauss, A. (2008). *Basics of qualitative research* (3rd ed.). Thousand Oaks, CA: Sage.

Cotterall, S. (2000). Promoting learner autonomy through the curriculum: Principles for designing language courses. *ELT Journal, 54*(2), 109-117. doi:10.1093/elt/54.2.109

Little, D. (1991). *Learner autonomy: Definitions, issues and problems*. Dublin, Ireland: Authentik.

Paquette, G. (2002). *Handbook on information technologies for education and training: Designing virtual learning centers*. Berlin, Germany: Springer Verlag. Retrieved from http://hal.archives-ouvertes.fr/docs/00/19/06/67/PDF/Paquette-Gilbert-Chap16-2001.pdf

Roblyer, M., & Ekhaml, L. (2000). How interactive are your distance courses? A rubric for assessing interactivity in distance learning. *Online Journal of Distance Learning Administration, 3*(2). Retrieved from http://www.westga.edu/~distance/summer32.htm

Rosen, L. D., & Weil, M. M. (1997). *Technostress: Coping with technology @ work @ home @ play*. London, UK: Wiley.

Scheid, K. (1993). *Helping students become strategic learners: Guidelines for teaching*. Cambridge, MA: Brookline Books.

Siragusa, L., Dixon, K. C., & Dixon, R. (2007). Designing quality e-learning environments in higher education. *Proceedings ASCILITE 2007* (pp. 923 -935). Singapore. Retrieved from http://www.ascilite.org.au/conferences/singapore07/procs/siragusa.pdf

Appendix A. Virtual language resource centres

ECI expert: http://englisheci.weebly.com/
Keep Posted: http://keepposted.weebly.com/
Let's speak: https://sites.google.com/site/elbosquespeaksenglish/home
Maths Up: http://maths-up.webnode.es/
Reading Together: http://readingtogether.jimdo.com/
Speaking Corner: http://budy12.wix.com/speakingcorner
Unicor VLRC: http://unicorvlrc.webs.com/
Virtual English for us: http://virtualenglish4us.wix.com/corazonistaandics