

## Innovating Teacher Education through ICT-Based Interaction

**Melinda Dooly**

Universidad Autónoma de Barcelona (Spain)  
[melindaann.dooly@uab.cat](mailto:melindaann.dooly@uab.cat)

### Abstract

*Telecollaboration is becoming more commonplace in the language learning classroom. Subsequently, researchers and practitioners call for more investigation into efficient praxis in telecollaborative projects for language teaching. Considering the difficulties of changing teachers' established practices -which are often based on their own learning experiences- an intriguing challenge for teacher education emerges: How to ensure teaching approaches that many teachers have not experienced as learners? Recent studies show that many teachers have begun to integrate the use of ICT tools into their teaching practices, however studies also indicate that the use of telecollaboration projects are minimal, implying a gap between teachers' awareness of such practices and ability to effectively integrate telecollaboration in their teaching.*

*It was within these parameters that a telecollaborative teacher training project was designed and implemented to provide opportunities for language teachers in training (in Spain and the U.S.) to shift from 'knowledge consumers' to collaborative 'knowledge producers'. This presentation will report on the project activities through description of the steps in which student-teachers collaborated via a number of tools (i.e. email, Zoho, Skype, and Second Life) with their virtual peers. Partners developed a teaching unit and teaching materials, followed by shared reflection on their own and peers' teaching practice.*

*Using a community-of-practice framework ([1], [2]), specific features of the student-teachers' development of ICT and language teaching competences (e.g. teacher discourse, discussion and application of ICT-mediated teaching activities) are analysed before, during, and after the student-teachers' computer-mediated interaction. The initial comparative data for measuring development is based on the student-teachers' self-assessment, with criteria adapted from The European Portfolio for Student Teachers of Languages (EPOSTL). These data are triangulated with data from the synchronous (face-to-face and virtual) and asynchronous exchanges and results are discussed, followed by a summary of possible pedagogical implications for language teachers.*

### Introduction

The presentation is based on the virtual collaborative activities which were designed for knowledge sharing and enhancement of teaching competences of student-teachers at initial and graduate level. Specifically the activities aimed to push student-teachers to take an involved, critical stance towards the academic literature and teaching theory they were exposed to in their teaching methods courses; and to get them to move from 'knowledge telling' to 'knowledge transforming' so that they could make creative use of their theoretical knowledge and information.

This study aimed to highlight situated, learner-centred social practices as part of the learning process of becoming a professional language teacher, with an emphasis on dialogue and discussion in professional development experiences (Communities of Practice; [3], [4], [5]). The

underlying principle of a group of like-minded professionals who share knowledge, ideas and practical strategies and at the same time learn from the shared culture and experience of the group is a powerful and widely accepted paradigm of teacher development today ([6], [7]).

At the same time, language educators know well that communicative-based environments do not guarantee that language learning takes place. The task design and its implementation are key elements for efficient language learning to develop—a carefully designed task or activity that requires off- and online co-construction of knowledge not only provides opportunities for target language practice, it also helps integrate language use as the means for shared knowledge-building, thus further enhancing purposeful communication. This highlights the need for research into this type of language learning interaction, indeed, researchers and practitioners have begun to call for more focus on what it means to efficiently design a communicative venue for online interaction in the target language ([8], [9]).

## **The Study**

### **Context and Participants**

The presentation highlights different episodes from a year-long virtual collaboration between (seven) student-teachers studying at the Universitat Autònoma de Barcelona (UAB) in Spain and (thirteen) student-teachers studying at the University of Illinois Urbana-Champaign (UIUC) in the USA. All of the participants were studying to become language teachers, however the levels were different. The UAB student-teachers were undergraduate students in their final (3rd) year of Initial Teacher Education, specializing in English as a Foreign Language (TEFL), while the UIUC student-teachers were completing a MA course focused on Computer-Mediated Communication (CMC) for ESL Teaching. The level of experience with the use of technology was also generally different: The UAB student-teachers had little or no experience in telecollaboration while the UIUC group was not only more experienced in technology, the course they were taking specifically involved learning and using technology for teaching language. Due to difficulties of setting up synchronous meetings during class periods, the telecollaborative exchanges were carried out entirely in out-of-class time and counted on the participants' own resources.

### **Overview of Activities**

Before beginning the telecollaborative exchange, students were asked to evaluate themselves using an adapted ranking system from the European Portfolio of Student-Teachers of Languages (EPOSTL). This served as criteria for progress at the end of the year.

The online exchange formed part of the Teaching Sequence development process. The two groups were expected to give introductions (these were done through Voicethread in the format of a general presentation about themselves), which were then commented on by their online peers.

Following this, small, online groups were formed between the UAB and UIUC students. Individual brainstorming of content, materials and contextualisation of the TS were posted in a forum and the online peer groups gave feedback on these first ideas. Using this feedback, the first draft of the TS was created and posted in a wiki (Zoho) that allowed for easy correction, re-drafting, commenting, etc. by the online peer group members (and university instructors). This led to a second draft, followed by synchronous online meetings (text or audio chat) between the peers to discuss the new changes and to give more input on the latest draft (each group was

expected to meet at least twice during this stage although some groups met as many as five times).

Parallel to this, the student-teachers also presented their drafts (and reported on the online exchanges) during the F2F weekly sessions, thus the student-teachers received feedback on their TS by university tutors, colleagues from their own university and online peers. Additionally, the UAB students were required to show and discuss their TS with the placement school teachers where they would be implementing the sequence.

Because the students would not meet before the UAB implementation (implementation took place after the UIUC students had finished their course), the final exchange between the two groups was limited to final reflections on what changes they had made and how the peer input had helped them reach decisions. Final reflections about the whole TS were posted in individual wikis entitled 'My Trajectory Towards Teaching'.

In the second semester, the focus became more on getting real collaboration to take place between the students at UAB and UIUC (and not just feedback exchange). Student-teachers were expected to work together to design and develop Podcasts and accompanying teaching activities. After an introductory phase (there were new members in both classes) the student-teachers were presented to a new virtual space for interaction (Second Life). The first meeting took place on a weekend (so that everyone could be there) and included games and a 'scavenger hunt' so that the teacher-students could get to know each other as well as the new environment. Unknown to the student-teachers, new working groups had already been assigned and the students 'ended up' as groups in the scavenger hunt, thus giving them more time to become familiar with each other.

These same groups were then provided with virtual 'spaces' and tools for meetings and places for displaying their first drafts and giving feedback on the podcasts. The groups worked together on both the podcast and the teaching activities (pre-, during and post-) activities, although leaders were assigned for the different stages according to individual expertise (technological, pedagogical, etc.). A final, synchronous SL meeting served as both closure (SL party) and an opportunity for peers to give feedback on the finished podcasts. Individually, the UAB students reflected on the whole experience in the 'Teacher Trajectory' wiki.

## **Virtual Communities of Practice**

The course designers/instructors were especially interested in exploring the benefits for the student-teachers (both immediate and long-term) that could derive from participating in a (virtual) Community of Practice (herein CoP). According to Wenger ([10, [11]) learning is mutual development process between communities and individuals; during this process (in which the more novice participant or peripheral participant observes more expert members and then slowly engages in the community 'practices') new identities are formed (e.g. identity of professional teacher). In this process peripheral members are provided scaffolding by more experienced members through three main features: engagement, imagination and alignment.

During the telecollaborative exchange described here, the course designers/instructors ensured 'engagement' with other teachers, other students, teaching materials and teaching experiences through both face-to-face (F2F) and virtual spaces. Student-teachers were also expected to critique their own practices through guidelines and resources that indicated clearly 'how to engage as teaching practitioners' (e.g. The European Portfolio of Student Teachers of Language –EPOSTL, articles on innovative, computer-supported teaching practice, etc.).

Of course, the student-teachers, were not yet certified teachers. Therefore, 'imagination' or projection of self as a full-fledged member of the community was necessary. In order to foster this, the student-teachers were given opportunities for F2F and virtual 'experiments' of 'accepted, tried and true' community practices –particularly in the first part of the exchange (e.g. telecollaborative learning activities were guided and facilitated quite closely by the university tutors). This led to further autonomy as the students were then expected to design, try out and reflect their own teaching activities in order to 'imagine' and align themselves with experienced practitioners.

Finally, throughout the exchange student-teachers were required to 'align' themselves with the CoP. This took shape in different ways, for instance, taking on the role of tutor of their peers (in online exchanges), in which they clearly adopted the 'repertoire' and ways of 'being a teacher'. In other words, alignment with the CoP implies the sharing of several significant characteristics between CoP members: a sense of joint enterprise and identity around a specific area of knowledge and activity; a repertoire of ideas, commitments and memories, and ways of doing and approaching things.

By providing a suitable environment for the student-teachers to be able to expand their own CoPs (usually limited to local input of university tutors, school placement teachers and classmates), the student-teachers have access to new sets of social practices (coming from online teachers and peers that they would not normally be in contact with). This, in turn, helps them become more explicitly aware of the basic underpinnings and structures of these community practices –in this case tested and accepted 'Teacher' Practice.

The self and peer reflection played a substantial role in sustaining the CoP learning process. The exchange was designed to create affordances that support learning processes rather than fixed, pre-ordained goals and this inevitably may lead to a certain amount of unpredictability in development of activities. It also meant that the focus of reflection can easily become 'individualistic' or anecdotal. Using the notion of a CoP as a scaffolding tool helped the university instructors design telecollaborative activities that generated interaction leading to refinement of thought. In short, through the telecollaborative exchange and subsequent self- and peer reflection, the student-teachers were encouraged to make their practices visible for themselves and their peers in order to better understand (and adjust if necessary) taken-for-granted realities in particular their own teaching behaviour.

## Conclusions

Due to the brevity of this paper, it is impossible to discuss the episodes in detail. However the data collected implies that, by providing a suitable environment for the student-teachers, the participants were able to expand their own CoPs (usually limited to local input of university tutors, school placement teachers and classmates). The student-teachers also had access to new sets of social practices (coming from online teachers and peers that they would not normally be in contact with). This, in turn, helps them become more explicitly aware of the basic underpinnings and structures of these community practices –in this case tested and accepted 'Teacher' Practice.

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## References

- [1], [3], [10] Wenger, E. (1998). Communities of Practice. Learning as a social system, *Systems Thinker*, <http://www.co-i-l.com/coil/knowledge-garden/cop/lss.shtml>. Accessed December 28, 2002.
- [2],[4], [11] Wenger, E. (2007). Communities of practice. A brief introduction. *Communities of practice* <http://www.ewenger.com/theory/>. Accessed January 14, 2009.
- [5] Wenger, E. McDermott, R. & Zinder, W. (2002). *Cultivating communities of practice: a guide to managing knowledge*. Cambridge, Mass.: Harvard Business School Press.
- [6] Calderwood, P. E. (2000). *Learning community: Finding common ground in difference*. New York: Teachers College Press.
- [7] Grossman, P., Wineburg, S. & Woolworth, S. (2001). Toward a theory of teacher community. *Teachers College Record*, 10, 942-1012.
- [8] Levy, M., & Stockwell, G. (2006). *CALL dimensions. Options and issues in computer-assisted language learning*. Mahwah, NJ: Lawrence Erlbaum.
- [9] Mangenot, F. (2008). Formations hybrides utilisant Internet: l'importance du scénario de communication. In *Atti del seminario nazionale LEND, Lingua e nuova didattica 3/2008 (Anno XXXVII)*, 78-88.