Pedagogical corpora as a means to reuse research data and analyses in teacher-training

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Abstract

One methodological challenge faced by CALL research is how to reuse data and analyses in ways that bridge the researcher-teacher gap (Colpaert, 2013). Building on LEarning and TEaching Corpora (LETEC) methodology for structuring data from online learning situations (Reffay *et al.*, 2012; Wigham & Chanier, 2013), this paper presents the notion of pedagogical corpora as a means to foster pre-service teachers' professional development through reflective practice.

Guichon and Hauck (2011) identified four different approaches to CALL-based teacher education, including 'confrontation with research findings' and 'action research'. In the first approach, when trainers want students to gain skills in developing online learning situations based on interactive, multimodal environments, they have recourse to the reading of CALL literature disconnected from actual data. In the second approach, pre-service teachers participate in experiments and adopt either the role of learners or tutors. In the latter case, attempts to use the same methodology for both data collection and training purposes are often difficult to manage: trainers face the issue that student materials are often heterogeneous and quickly extracted from the on-going experiment and pre-service teachers may only considering their individual practice. Carefully documented and selected materials from online courses studied in their original context would be very helpful.

Pedagogical corpora offer possibilities to observe, examine and explore selected parts of a LETEC with reference to a lead identified within the research analyses performed. These pedagogical leads pertain to areas for enhancing either online L2 communication or interaction management. This paper presents the methodology developed for defining their structure (i.e. ways of extracting interaction data from LETEC and linking them to training tasks). We report on ways in which a pedagogical corpus can be used in teacher-training classrooms. The corpus discussed (Wigham & Chanier, 2013b) focuses on differences in tutor and student perceptions of collaboration in an online ESP course and compares and contrasts reflections from a teaching journal (Lewis, 2006) with interaction tracks from the LETEC corpus (Chanier *et al*., 2009).

Short paper

One methodological challenge faced by CALL research is how to reuse data and analyses in ways that bridge the researcher-teacher gap (Colpaert, 2013) and, indeed the researcher-trainee-teacher gap. Building on LEarning and TEaching Corpora (LETEC) methodology for structuring data from online learning situations (Reffay *et al*., 2012; Wigham & Chanier, 2013), this paper presents the notion of pedagogical corpora as a means to foster pre-service teachers' professional development through reflective practice using research data from online CALL situations.

Approaches to teacher-training

Training pre-service teachers out of authentic situations, built upon multimodal materials is not simply a concern of the language-learning field. There is extensive experience of the use of classroom video footage in teacher preparation and professional development in face-to-face contexts coming from teacher-training in physical education (Roche & Gal-Petitfaux, 2012), educational sciences (Miller, 2009) as well as mathematics (Santagata, 2009; Star & Stirkland, 2008). Several classroom footage video libraries have been

produced, including *ViSA* (Veillard & Tiberghien, 2012), *Inside Teaching* (Lieberman & Pointer Mace, nd) and *NeoP@ss* (Ria & Leblanc, 2011).

When used with pre-service teachers or for professional development, classroom video footage may be accompanied by other 'records of practice' (Hatch & Grossman, 2009). These consist of raw materials used in the classroom (curricular, student work, course planning, instruction and assessment resources) as well as research interviews, notes and commentaries that relate to the in-class practice but that were not used within the pedagogical context. The aim is to give video viewers a sense of what the video footage may fail to capture or details that may have been obscured. Hatch and Grossman underline the importance of this latter data for shedding light on the wider context in which a lesson or learning sequence is situated, including its "overarching purposes, histories, and long-term relationships invisible in daily interactions" (2009:70).

Within CALL, however, CALL-based teacher education is most often delivered through 'confrontation with research findings' and 'action research' (Guichon & Hauck, 2011). In the first approach, when trainers want students to gain skills in developing online learning situations based on interactive, multimodal environments, they have recourse to the reading of CALL literature disconnected from actual data. Pre-service teachers will not necessarily take the time to question the findings, taking research conclusions as a given. Indeed, for the development of an analytic approach to the reading of research literature takes time and during training courses we do not necessarily have enough time for this process to mature.

In the second approach, pre-service teachers participate in experiments and adopt either the role of learners or tutors. Here, there is either the assumption that trainees will naturally understand what they need to do or, if greater guidance is given, reflective feedback sessions are often conducted with the trainees. In the latter case, attempts to use the same methodology for both data collection and training purposes are often difficult to manage: trainers face the issue that student materials are often heterogeneous and quickly extracted from the on-going experiment and pre-service teachers may only consider their individual practice.

For the CALL field, training pre-service teachers out of in-world situations, built upon multimodal materials (carefully analysed with respect to theoretical viewpoints) alongside other records of practice/ research data and findings would be very helpful.

Following on from our work into developing the LEarning and TEaching corpus methodology to systematically structure data from interactions that occur during a course that is partially or entirely online, alongside the course's learning design and research protocol (Reffay *et al.*, 2012; Wigham & Chanier, 2013), we are currently developing *pedagogical corpora*. Available online in the Mulce repository (Mulce-Repository, 2013), pedagogical corpora offer a series of structured training tasks, designed around selected parts of a LETEC, which encourage pre-service teachers to observe, examine and explore LETEC resources with reference to a lead identified within the research analyses performed.

Example of pedagogical corpus: Reflective teaching journals

It is a well-known recommendation, when training pre-service teachers, to foster the writing of teaching journals during their practice. It is a prerequisite for developing reflective practice but it is not a sufficient condition. It only offers a one-sided view of the course situation. A more objective standpoint may come from confronting the journal with other perspectives (reflections coming from other participants or observation of data collected during the course) (Chanier & Cartier, 2006). In order to make pre-services teachers aware of this situation, we developed the pedagogical corpus 'Reflective teaching journals' (Wigham & Chanier, 2013b). It focuses on tutors' and students' differing views of successful or unsuccessful collaboration and different perceptions of an online course. The objectives of the corpus are for trainee-teachers to:

- identify language tutors' and students' differing views of successful online collaboration;

- summarise the characteristics of successful collaboration and produce a list of implications for practice;
- appraise the advantages of keeping teaching journals;
- compare and contrast reflections from a teaching journal with naturally occurring data (interaction tracks) and researcher-provoked data (student feedback) to analyse whether teachers should base reflections about teaching practice solely on journal entries and personal reactions.

The learning outcomes, when trainee-teachers have worked through the reflective tasks, are for them to:

- use materials taken from in-world learning situations to compare and contrast students' impressions of the course with those of the language tutor;
- be aware that your take on a course, as a language teacher, may not be representative of the classroom action;
- you will have built your own list of implications for practice for successful collaboration;
- appreciate that the level of collaboration is judged not only through your teacher's perception of a course but by basing your judgement on students' perceptions and understandings.

In the pedagogical corpus, selected parts of the Copéas LETEC (Chanier *et al.,* 2009) are utilised in association with a research article on the online ESP course (Lewis, 2006). The corpus users are guided through a series of reflective activities based on personal experience, extracts of interaction data (audio and video-based) from the LETEC but also learner questionnaires and learner and tutor post-course interviews. Figure 1 shows a sample task from the pedagogical corpus in which users identify characteristics of successful collaboration through the tutor's discourse, using extracts of the reflective journal the tutor kept throughout the Copéas course and an extract of the audio post-course tutor interview.

Activity 3.1
First of all, consult the following resources (*rtjounrals-int-TutT-ext1-mp4*, *rtjounrals-int-TutT-ext2-mp4*) that present the tutor's impressions of whether the activities he proposed were collaborative or not. In your notebook, take notes about the characteristics of successful collaboration the tutor gives. Remember that any points he gives about unsuccessful collaboration can be turned on their head to provide pointers for successful collaboration. What reasons does the tutor give for them? Note down any examples he gives to illustrate the characteristics you have identified. Do any of the characteristics match those you listed in activity 2?

Resources:

- rtjournals-diary-TutT-pdf *This is the tutor's journal that he kept throughout the Copéas course and in which he reflects about tutoring the course online. The journal is in English.*
- rtjournals-int-TutT-ext1-mp4 *This is a mp4 video of an extract of the audio post-course tutor interview with slides to guide the viewer. The audio interview was conducted by a researcher in French. The slides are in English. The video lasts 10 minutes 30 seconds.*

Figure 1: Sample task from a pedagogical corpus

A second pedagogical corpus 'Textchat in multimodal contexts' (Wigham & Chanier, 2013c) that we have designed examines the different discursive functions for which textchat may be used, in association with voicechat, and focuses on patterns of use of the textchat for feedback and types of corrective feedback. The corpus was designed in order to help trainee-teachers become aware that textchat use is influenced by the importance a tutor accords to this modality and that, in multimodal environments, voicechat and textchat modalities can be combined to offer students different possibilities for interaction and to give the tutor different ways to support them in their verbal productions. The activities in the pedagogical corpus require users to simultaneously work with research papers published on the subject of feedback in textchat, interaction data from a Content and Language Integrated Learning course and classifications of discursive functions of textchat from a methodological manual of coding procedures elaborated as part of a research study.

Perspectives: confronting expert and novice viewpoints

Such pedagogical corpora offer a kind of expert viewpoint (but an expert viewpoint based on research analysis, i.e. coming from a scientific research cycle). Practice in teacher-training coming from the aforementioned fields show that it is not enough. Students need to bring their own data (extracts of live sessions and reflective writing) in order to confront these with expert views and other views' from classmates as well; the whole process being integrated into a discussion framework, whether online (Barab, Klig & Gray, 2004) or face-to-face. Furthermore, it cannot be a one-shot process but must be a progressive one. Becoming a teacher implies moving from a peripheral participation to a more centred one and this process becoming legitimate by the community, (cf. Lave and Wenger (1991) *Legitimate Peripheral Participation* approach). Of course, the teacher-training period will not suffice, but the idea is to involve students in a rich process during which they confront expert and novice viewpoints.

Our pedagogical corpora offer a good starting point by providing authentic multi-perspective data embedded into sets of collaborative activities, which can be completed either online or face-to-face (all corpora from Mulce-repository (ibid) are open access). We now need to integrate these activities into a more general process where students will bring their own data to the discussion and reflective process. This work flow is represented in Figure 2.

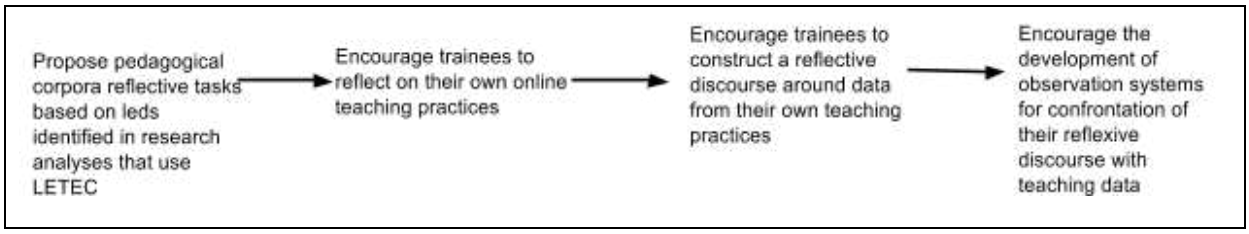

Figure 2: Teacher-training work flow process with integration of pedagogical corpora and trainees' data coming from their current practice

The next step in our action research is to develop an online experiment with pre-service language teachers belonging to two different institutions based on a learning scenario which will integrate the pedagogical corpora and trainees' data around a collaborative process. This is planned for the first semester of 2014-15. It is our hope that the reuse of research data in pedagogical teacher-training contexts will help to widen CALL research's applicability and bridge the researcher-teacher gap.

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