

POSTER PROPOSAL: Research Summary

TITLE: Knowledge building practices appropriation through CSCL for school change and development

Authors: Garcia Gonzalez, Iolanda

Institution / E-mail: *Department of Theory and History of Education, University of Barcelona, iolanda.garcia@ub.edu*

1. Statement of the issue/problem

Our aim is to present general scheme and features of the research project¹ we are working on, whose purpose is to provide participant teachers with a platform that enable them to act as transformation agents on their respective educational settings. More specifically, it consists of generating collaborative working environments through two technological tools designed to facilitate and support shared knowledge building: BSCL and Fle3. By designing adequate models for CSCL appropriation in four participant schools, our goal is to mediate coherence between pedagogical, technological, social and epistemological infrastructures, in order to reach global organizational change and development.

From the research point of view, we agree with Jones, Dirckinck-Homfeld and Lindström (2006) that we need a theoretical approach that explicitly takes into account what they call the “meso-level approach” to CSCL implementation, thus referring to: a) the design of collaborative learning practices at institutional level; b) the identification of basic conditions and requirements that allow for and provide sense to collaborative learning in these settings; and c) the technology and infrastructure affordances that might mediate the learning processes taking place. This approach involves a flexible understanding of the design, considering both experimental and pedagogical dimensions of the innovation process. This involves focusing mainly on learning implications and on users’ perspectives, considering teachers but also students and principals as key agents in the design of the model.

2. How your research will address the issue/problem

We are working on a model for the appropriation of ICT and school development through collaborative knowledge building practices. It encompasses technical tools with pedagogical models founded on collaborative and inquiry based learning. Curricular and organizational aspects of institutional structure and activity are also taken into account. Finally, epistemological infrastructure intends to involve teachers and students knowledge building communities, aiming at their deep understanding of the role of knowledge and inquiry processes in their own as well as in institutional progress.

The research plan is divided in five main steps or actions which will take place in four participant institutions (two primary and two secondary schools): 1) Identification of ICT level of adoption for collaborative knowledge building purposes; 2) Analysis of enablers and inhibitory factors for technology use in collaborative learning practices; 3) Design from a pedagogical and social perspective, together with school agents, models for the appropriation of CSCL environments coherent with their own educational context; 4) Evaluation of the efficacy of designed learning environment for the generation of collaborative knowledge building processes at institutional level; 5) Identification of advantages and inconveniences of the CSCL appropriation process with two different technological approaches: Fle3 (Future Learning Environment) and BSCL (Basic Support for Collaborative Learning).

The design of the research study comprises next aspects: formative research methodology based on secondary sources’ data collection for qualitative analysis. Instruments from which we plan to collect data are the following: teachers and pupils interviews and focus groups; participant observations; teachers’ diaries; principals’ questionnaires and data base analysis of the use of both technological environments. In order to analyze the appropriation process of CSCL

¹ The referred project is financed by the Spanish Ministry of Education and Science and it is coordinated by professor Begoña Gros. It has started the current academic course 2006-2007 and will go on for three years.

environments in the participant schools we will use Lund's model (2004), while the innovation sustainability will be monitored on the base of Hall and Hord (2001) "Concerns Based Adoption Model" (CBAM).

During the first phase, team building, teacher training, and preparation of the research study is being developed (January-July 2007). On the second phase (September-July 2008), central experience will take place: first, participant schools will determine the design of the collaborative environment and knowledge building practices with the support of BSCL and Fle3 tools, next they will implement it and data collection will take place. The third phase will be devoted to the analysis, elaboration of conclusions and dissemination of results. Throughout this phase, the implementation of models will continue as well as teachers' reflection around own practice (September-July 2009).

3. What have you learned/progress to-date

We would only be able to talk about research results by the end of next course. We can, however, refer to some preliminary reflections coming from working sessions with teachers during the training and team building process. They acknowledge that face-to-face meetings with other colleagues and researchers, where they can share points of view and build a common ground of conceptual understanding about collaborative learning and knowledge building perspectives had been major factors to make them feel confident about their own capability to become part of the research team and bring value to the project.

We already appreciate first signs of teachers' conceptual change on the ways they understand and analyse their everyday practice. There is a clear correspondence between flexible structures and the process of collaboration. For instance, secondary schools have worse conditions for innovation and interdisciplinary approaches than primary ones, due to the fragmentation of the curriculum of the former and its focus on contents rather than on competences. At the same time, they have started to identify different ways to implement technological tools in the design and use of significant collaborative knowledge building environments for each educational setting.

We are at this moment more aware about the difficulties and limitations that accompany this kind of approach on each participant school. Nowadays, we also identify advantages of working through different educational contexts, which amplifies and provides sense to our research goal.

4. Major project goals: what do you hope to achieve/accomplish?

In this model CSCL is meant to act as a catalyser for teachers' development and institutional change by favouring collaborative knowledge building processes in the school: a) It may facilitate interactive and negotiated teachers' management of a school classroom and allow adaptation of didactic strategies to students learning pace and mode, turning teachers and students into active participants in the knowledge building process that takes place in the classroom; b) It might facilitate teacher involvement in school innovation processes through taking part in virtual collaborative knowledge communities for professional and institutional development; c) It might allow transformation of educational practice at the schools by engaging the whole educational community in building social understanding.

References

Hall, G. E., Hord, S. M. (2001). *Implementing change: Patterns, principles and potholes*. Boston, MA: Allyn and Bacon.

Jones, C.; Dirckinck-Homfeld, L. & Lindström, B. (2006) A relational, indirect, meso level approach to CSCL design in the next decade. *Computer-Supported Collaborative Learning*, 1, 35-56.

Lund, A. (2004). Teacher expertise as appropriation: emergence of transformed practices. *Proceedings Pro-Learn International Conference – Professional Learning in a changing society*, November 25-27, University of Oslo.