A CASE STUDY ON COLLABORATIVE LEARNIG IN DISTRIBUTED, CROSS-CULTURAL TEAMS

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ABSTRACT

The case study evaluated how students worked in distributed cross-cultural teams with an intervention called *BrainSpace* . This method allows sharing explicit knowledge, and ensures that all participants gain tacit knowledge within a collaborative process. The research was undertaken in a graduate-level course where students from US and Japan worked in a team to create a product requested by an industrial sponsor. Based on cultural differences the students' initiative to collaborate gradually faded. Instead of a mutual engagement that led to knowledge creation, only the lower level of a web-based coordination was reached. Related on an activity theoretical scheme it is shown how the aspect of creating a product became more important than knowledge creation. Upon these findings some recommendations to improve computer supported collaborative learning in cross-cultural teams have been made. As corporations face increasing demands to collaborate internationally, it is important to learn how these distributed teams can maximize knowledge sharing and innovation. A challenge for higher education is preparing students for this distributed collaboration. Since universities often focus on models that support individual learning, there is a need to adapt by adopting more collaborative learning instruction in the classroom. In this development, information and communication technologies (ICT) also plays an important role in supporting learning and teaching.
This paper describes how students worked in distributed cross-cultural teams with an intervention called *BrainSpace* (Büsser/Ninck 2003), a method that enhances collaborative learning and knowledge creation. The research was undertaken in a graduate-level engineering course where students from different universities worked in teams to create a product requested by an industry sponsor. Based on the results, recommendations are made to enhance learning using collaboration in cross-cultural, distributed teams. First, it is important to learn about intercultural communication at the start of the course. Based on the student's awareness of cultural differences, they would be able to better analyze and judge their own ongoing collaboration with others. An institutional structure should make clear the common vision of the participating universities.

To start and enable a collaboration process within a distributed team it is important to integrate the heterogeneous groups with alternative world views and different perspectives and to make known each other and build trust and commitment. It is also important to structure and pace the process related to the time restriction, and to provide a shared space by mediating appropriate tools for collaboration. *BrainSpace* is built upon these recommendations, and this study shows that there is a need for such a method in web based environments.

KEYWORDS

Collaboration, Collaborative Learning, Knowledge Communication, BrainSpace, Cross-Cultural Team, Virtual Communities

REFERENCES

Armstrong, D. and Cole, P. (1995). *Managing distances and differences in geographically distributed work groups.* In: Jackson & Ruderman (Eds.). Diversity in work teams: Research paradigms for a changing workplace. Washington, D.C: American Psychological Association.

Beer, S. (1994). *Beyond dispute: The invention of team syntegrity.* New York: Wiley.

Büsser, M. and Ninck, A. (2003). *BrainSpace - A method for computer supported collaborative knowledge construction.* Proceedings of IASTED International Conference on Computers and Advanced Technology in Education (CATE 2003). Rhodes, Greece.

Duarte, D.L. and Snyder, N.T. (1999). *Mastering virtual teams: St rategies, tools, and techniques that succeed* . San Francisco: Jossey-Bass.

Fjuk, A. and Ludvigsen, S. (2001). *The Complexity of Distributed Collaborative Learning.* Unit of Analysis. CSCL, Maastricht, Netherlands, Maastricht McLuhan Institute.

Jansson, E. (2002). *Facing the unknown: working in a distributed project* . Stockholm: Royal Institute of Microelectronics and Information Technology.

Jonassen, D.H. (2000). *Revisiting activity theory as a framework for designing student -centered learning environments.* In: Jonassen, D.H., & Land, S.M. (Eds.). Theoretical foundations of learning environments. London: Lawrence Erlbaum Associates.

Kuutti, K. (1996). *Activity theory as a potential framework for human -computer interaction res earch.* In: Nardi, B.A. (Ed.). Activity theory and human-computer interaction. London: MIT Press.

LaRue, B. and Sobol, M.R. (2002). *The Executive Master Class: Cyberspace and the New Frontiers of Executive Education.* In: Handbook on Online Learning. Innovations in Higher Education and Corporate Training. London: Sage Publication.

Lehtinen, E. et al. (2000*). Computer supported collaborative learning: A review.* In: Mejiden H., Simons R. & de Jong, F. (Eds.) Computer supported collaborative learning in primary and secondary education. A final report for the European Commission, Project 2017. University of Nijmegen.

Lemons, M.A. (1997). Work groups *or work teams? Cultural and psychological dimensions for their formation.* In: Advances in Interdisciplinary Studies of Work Teams: Vol. 4 (pp. 97-113). Texas: JAI press.

Rudestam, K.E. and Schoenholtz-Read, J. (Eds.) (2002): *Handbook on Online Learning. Innovations in Higher Education and Corporate Training* . London: Sage Publication.

Piaget, J. (1980). *The constructivistic approach.* Geneva: Foundation Archives Jean Piaget.