Experience with Group Supervision

Weiqin Chen

Institutt for informasjons- og medievitenskap, Det samfunnsvitenskapelige fakultet

E-mail: weiqin.chen@infomedia.uib.no

Introduction

Supervision can take a few different forms. For example, it can be one-to-one supervision and it can also be group supervision. Group supervision is an important process within the scientific community. Many research groups use this form to supervise doctoral- and master students in groups. Some efforts have been made to study this process. For example, Samara (2002) studied the group supervision process in group writing. However, group supervision has not been studied thoroughly so far. This project aims at studying the group supervision from the community of practice point of view. The main research question is:

What are the effects of group supervision on constructing a learning community?

Theoretical Framework

The work presented in this paper follows the research within CSCL, which is a recent paradigm in educational technology (Koschmann 1996). According to Lipponen, CSCL is focused on how collaborative learning supported by technology can enhance peer interaction and work in groups, and how collaboration and technology facilitate sharing and distributing of knowledge and expertise among community members (Lipponen 2002). Knowledge is considered as a human construction elaborated through communication and collaboration with peers, mediated by social and cultural artifacts (e.g. tools, languages), implying that learning first of all occurs on inter-personal grounds within a community of learners before occurring on the intra-personal realm of the individual learning (Vygotsky 1980). This paper is based on the notion that knowing, understanding, and thinking are

parts of socio-cultural contexts where learning is situated within the activity in which knowledge is developed and deployed. Situations occur in contexts, which are the integrated elements of the environment: the participants, activities, texts, tasks and objects that constitute a particular situation. Within any situation, contexts weave together the contents of a place and time. Lave and Wenger emphasize that learning is situated and depends on the interaction among people within socially and culturally constructed settings (Lave and Wenger 1990). A fundamental concept of situated learning is that it takes place within what Lave and Wenger call "communities of practice". Their concept of "community" does not necessarily mean a concrete, well-defined group, but rather "participation in an activity system about which participants share understanding concerning what they are doing and what that means in their lives and for their communities" (ibid, p. 98). These communities develop and function according to the ways in which the community reproduces itself, give opportunities for newcomers, and the quality of the interactions between members of the group. Lave and Wenger coined the term "legitimate peripheral participation" to express the relationships between contextual environments, learners and experts – all interacting within particular communities. "Legitimate peripheral participation" provides a way to speak about the relations between newcomers and old-timers, and about activities, identities, artifacts, and communities of knowledge and practice. A person's intentions to learn are engaged and the meaning of learning is configured through the process of becoming a full participant in a socio-cultural practice. This social process, includes, indeed it subsumes, the learning of knowledgeable skills. Within the community, newcomers learn the practice in concrete terms and core members gain new insights from contacts with less-engaged participants.

Experiments

Subjects

In order to answer the research question, two experiments were conducted with a research group at InfoMedia. The research group consists of one professor, two associate professors, one assistant professor, one PhD student and more than 25 master students. The projects that the group members are working on are mainly focused on design research and evaluation. The group supervision is carried out once a month, usually in the first week of each month.

Procedure

The first experiment was on the 1st of November 2004, from 1015 to 1200. Participants include one professor, two associate professors, one assistant professor and two master students. The activities are student presentations and discussion among the participants. The second experiment was conducted on the 6th of December 2004, from 1015 to 1200. The participants include one professor (P1), two associate professors (P2 & P3), one assistant professor (P4) and nine master students (M1-M9). The activities include focused presentations by master students who were working on the same projects or on the same research topics. Participants also gave comments to each other.

Data Collection

The methods for data collection include observation and video recordings. The recordings were partially transcribed. Interview has not been used at this stage, but is considered to be an important method for this project. The conversations are being analyzed and some preliminary results have been obtained.

Findings

Three episodes will be shown her to show the findings from the analysis.

- Episode 1

Context:

Master student (M1) presented her plan on using Activity Theory (AT) to evaluate ClassFronter in UiB.

Conversation:

P1 (faculty member): You did not mention any learning theories in your presentation. Are you planning to use any given that you are evaluating a learning environment?

M1: Yes. I am reading CSCL articles…

P1: In AT, there is a concept called "conflict" or something like that. I think it is an important concept. Do you know about it?

M1: No.

P2: Resolving conflicts should be mentioned in your research question.

P3: The concept is 'contradiction', which is conflict or clash within and between the components of the activity system, as well as conflict within and between activity

systems. By identifying contradictions in an activity, we can identify areas where improvements can be made to processes, tools, etc.

P4: Will you look at the content of the courses?

M1: …

As we can see from this episode, P2 was having a misconception. Because P1 used "conflict" instead of "contradiction" and "conflict" has a different meaning in another context ("artificial intelligence" where conflict resolution is an important task). In this situation, both the student and other researchers have learned something from P3 who were familiar with this topic. This is consistent with the theory of community of practice where all members in the community learn from each other. Even those who are in the center of the community still learn new knowledge from other people's practices.

- Episode 2:

Context:

Master student (M2) talked about his project on distributed programming with Java.

Conversation:

M2: I tried to use a client/server structure and it seems very difficult. I have spent a lot of time reading examples.

P1: We have people programming client/server structure with Java (pointing to M3)

M3: Yes. This is how I do it. (M3 went to the whiteboard, drew a diagram and wrote a few lines of pseudo code). Make sure you reset the outputstream every time you want to send something to a socket. Otherwise the package won't get updated.

This episode shows that the members that are in the peripheral of the community learn from the members that are within the inner circles of the community. This process will allow the peripheral members to move gradually to the center by learning from others' experiences and improving their knowledge levels and performances.

- Episode 3:

Context:

Master student (M4) talks about his project on advanced search techniques for the rhetoric project.

Conversation:

M4: I have finished the programming with servlet to connect from a webpage to a database. But I only used a pseudo database because the database design is not yet finished.

M5 (the master student who is working on the database design): The database will be finished in two week's time.

M4: In the meantime I will continue to use the pseudo database to test my algorithms.

P3: When is the deadline for the rhetoric project? I mean when does the website should be launched?

P1: The end of next June.

P3: Then we have to decide a deadline for ourselves, should be at least 2-3 weeks before the launch.

P1: Yes. I suggest that we have a meeting, P2, P3 and I, with the Media people and make a concrete plan.

P3: Yes. We should also sit down to look at the design of the database before we finalize it, all of us, because if it has to be changed later in the process, it will be very difficult.

This episode shows that the faculty members that are in the core of the community make decisions based on the problems brought up by the members that are in the peripheral of the community. This allows the just-in-time decision making and prevents the peripheral members from wasting their time. In the meantime, the peripheral members can learn the decision making practices from the core members.

Conclusion and Future Work

Community of Practice is an inventive way of engaging students in meaningful practices, of providing access to resources that enhance their participation, of opening their horizons so they can put themselves on learning trajectories they can identify with, and of involving them in actions, discussion, and reflections that make a difference to the communities they value.

In this project, preliminary analysis has been conducted and some results have been obtained. Interviews are planned as part of the future work. The subjects of the interview

will include members in different levels of the community, from first-year master students to the highest level faculty members. The transcribing and analysis of the records should be continued. The relationship between group supervision and individual supervision should be further studied. The interviews might be able to shed some light on this issue.

References

Koschmann, T. *Paradigm Shifts and Instructional Technology: An Introduction. CSCL: Theory and Practice of an Emerging Paradigm.* T. Koschmann. Mahwah, New Jersey, Lawrence Erlbaum Associations, Publishers: 1-24, 1996.

Lave, J. and Wenger, E. *Situated Learning: Legitimate Periperal Participation.* Cambridge, UK, Cambridge University Press, 1990.

Lipponen, L. *Exploring foundations for computer-supported collaborative learning*. Prof. of CSCL2002. Boulder, Colorado, USA, 2002.

Samara, K. *Group supervision in graduate education: an arena for the improvement of the writing process, skill development and discipline enculturation.* The 10th Conference Valuing and Evaluating Writing in Higher Education, 11th-12th May 2004.

Vygotsky, L.S. *Mind in Society: The Development of Higher Psychological Processes*, Harvard University Press, 1980.