

Evaluation for knowledge

An approach to supporting the quality of learners' community in higher education

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Abstract: This chapter presents a new approach to evaluation called *evaluation for knowledge*. We suggest that this approach conceals the capacity to support the emergence of authentic learners' communities and thus contribute to quality of learning and provide criteria for its evaluation. To confront this idea, we will present the bases and the characteristics of the evaluation for knowledge approach and its convergence with the emerging process of learners' community. Two cases will then be describe to illustrate this convergence. Finally, we will suggest a set of instruments that could be used to implement evaluation for knowledge.

Key words: Learners' community, community building, evaluation of learning, higher education

1. INTRODUCTION

A learning community is an innovative pedagogical means used more and more by course designers to increase the quality of distance learning. Thus, the first objective of a community is learning. However, evaluation of learning within a community raises several questions for which the usual evaluation methods do not bring satisfactory answers. On which dimension should evaluation be done: individual or collective, or both? What types of learning can be carried out by the individual or the community and which criteria should be used to evaluate them? How are individual evaluations required by academic studies programmes reconciled with collective evaluation that better renders the integrity of the activity of the community?

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How is non-disciplinary learning to support personal, social and professional growth taken into account?

The problem of evaluation arises especially because we do not yet have models able to grasp the complexity of the activity of the community. In this paper, we will present a new approach to evaluation called *evaluation for knowledge*. This approach primarily aims at building the quality of innovative pedagogical situations through the elicitation of suitable evaluation criteria by the actors of the training system. We also believe that evaluation for knowledge conceals the capacity to support the emergence of authentic learners' communities and thus contributes to the quality of learning and provides criteria for its evaluation. To confront this idea, we will try to understand the role it might have to support the emergence of learners' community. By doing so, we try to address the issues related to the process and products of group learning in the context of virtual communities.

2. EMERGENCE OF LEARNERS' COMMUNITIES

For more than ten years the collaborative and networking process has been recognised as an effective process for knowledge building and learning by professionals (Lewis, 1995). Wenger (1998) has concretely described and analyzed the process by which adults enter a new community of practices, learn and build their own identity. Pedagogical designers have tried to exploit this informal process as a pedagogical strategy and to apply it to formal educational environments that are structured around virtual spaces, technological tools and various types of activities to support the building of what is called *learners' communities*. From our point of view, the decision to use learners' community as a pedagogical strategy should be grounded on pedagogical goals such as preparing learners to enter a profession, introducing them to models of professional practices, learning to act as a professional and to acquire the identity references of a profession. Implementing a learners' community must not be confused with the decision to introduce collaborative learning activities that don't require setting the conditions for a community to emerge and to go through community building process.

A learners' community does not emerge from relations of individuals who discover a shared interest or a common practice. A learners' community is initially the expression of intention of the course designer or faculty member who wishes to induce a learning process based on action, finalized according to projects scaffolding on the collaboration between

learners (Henri and Pudelko, to be published). Thus, at the start, a learners' community does not grow automatically from learners that are grouped in entities administratively created to execute tasks that are fixed beforehand. They don't share yet a common practice, a common activity or a common profession. They certainly have a common interest, which is that to succeed, but also a common goal, which is to access a common profession or practice. It would be illusive to suppose that learners will spontaneously be conscious or recognise that building of a community could be a means that can help them to reach their goals and to contribute to their success. The challenge of course designers as well as tutors is then to create in an often-reduced lapse of time the favourable conditions to the transformation of a gathering of learners into an authentic community, able to carry out quality learning. Wenger, McDermott and Snyder (2002) refer to *cultivation* as an analogy to stress the fact that, as for a plant, one cannot command a community to grow. But we can create environments in which a community can emerge and prosper. For this purpose, and because learners' community most often constitute a new learning situation, the application of the evaluation for knowledge process seems to us to be an interesting way to support the emergence of learners' communities.

3. EVALUATION FOR KNOWLEDGE APPROACH

Evaluation for knowledge is a new approach to quality evaluation suited for innovative distance education systems. It acknowledges the principle establishing that, in the context of innovation, it is not possible to know in advance all the conditions required for significant learning experience to occur. It is not either possible to describe what will be the roles and the tasks of the various actors, their constraints and their representations of change. This is why, in order to be adequate in a new learning situation, evaluation must allow pedagogical designers, faculty members, tutors as well as learners to build, step by step, their own representation of the new distance education system in which they are involved. For that purpose, evaluation for knowledge invites them to express and to analyse their teaching and learning experiences. This approach also allow them to work out a common, collective and dynamic framework of reference which can be considered as a framework of reference of the quality standards of the distance education system.

This evaluation process is conceived as *producing knowledge* on the learning process and products. This knowledge makes it possible to define common learning quality standards. The expression of meaning given by each actor related to the learning experience lived within the community

constitutes the central process of quality evaluation and represents also an essential factor for the constitution of a learners' community.

This approach developed by Eleanor Chelimsky (1997) has been primarily undertaken to obtain a deeper understanding in some specific area or policy field. Bonamy, J, Charlier, B. and Saunders, M. (2001) have applied it to the evaluation of distance learning systems. Its essential features are the following:

- The convergence of research and evaluation. The focus is oriented towards the deep understanding of two main dimensions of the distance learning system: the individual learning projects as well as the one of the group. Taking into account these data about the learning experience, regulation and evaluation can be carried out.
- An evaluation approach which uses descriptive monitoring data and qualitative validation. On-line data (forum and chat communication, students' logbooks) are gathered and analysed. The communication and discussion of these analyses during face-to-face meetings support the elaboration of a common framework (description of the objectives, definition of charters, definition of evaluation criteria, common tools).

Since evaluation for learning is based on social participation, identification of common objectives, development of common understanding and common criteria on a concrete situation, we believe that it provides the conditions for a community to emerge and for quality learning to be carried out. We suggest that these two processes are convergent, that they stimulate each other and contribute to quality learning.

4. CONVERGENCE OF THE TWO PROCESSES

Wenger's social theory of learning (1998) focuses on learning as social participation, as 'a process of being active participants in the practices of social communities and constructing identities in relation to these communities' (p. 4). Social participation, community building, development of identity, learning and knowing are deeply interconnected and are articulated around negotiation of meaning. For Wenger, negotiation of meaning is at the base of any individual and collective learning. Its goal is to ascribe meaning to our life experience. Wenger insists on the two interacting processes of *participation* and *reification*, and on their duality fundamental to negotiation of meaning and to learning. On the one hand, participation describes 'the social experience of living in the world in terms of membership in social communities and active involvement in social enterprises' (p. 55). Participation means being an active participant in a

social community and constructing identities: individual and community identity. On the other hand, the reification process is one 'of giving form to our experience by producing objects that congeal this experience into "thingness" '(p. 58). Both participation and reification always leads to learning since it contributes to the construction of identity. Table 1 tries to show the correspondence between, on one side, participation and reification processes that support the emergence of a community, and, on the other side, reflection and elaboration of a common framework which are the two main dimensions of evaluation for knowledge.

Wenger also stresses that three components have to be present for a community to exist and find its coherence: dense relations of *mutual engagement* organized around what they have to do; negotiation of a *joint enterprise* defined by the participants in the very process of pursuing it; *shared repertoire* that combines both reificative and participative aspects, reflecting a history of mutual engagement, and the negotiation of meaning during the joint pursuit of an enterprise that create shared points.

Table 1. Parallel processes of a community emergence and evaluation for knowledge

COMMUNITY EMERGENCE PROCESS	EVALUATION FOR KNOWLEDGE PROCESS
Participation	Reflection
Who am I? And what I am aiming at?	Expression and analyse of individual learning projects
Who are we? And what are we aiming at?	Expression and analyse of collective learning projects
What are our common resources and environment?	Analyse of constraints and resources
Sharing on the activity of the community	Sharing on the learning experience; revision of methods and tools
Negotiation and revision of the collective objectives and methods	Regulation of the objectives and methods
Reification	Elaboration of a common framework
Expression of common objectives	Description of learning objectives
Formalization of common practices	Definition of communication charters
Agreement on common values	Definition of evaluation criteria of learning and of the learning system
Shared resources	Common resources and knowledge

We believe that the evaluation for knowledge approach adopted in the context of distance learning projects shows theoretical convergence with the social learning theory of Wenger and, when applied, has the potential to support the emergence and the existence of learners' community. Firstly, by its reflective facet on individual and collective projects, analysis of learning resources and constraints, decision making about objectives and methods and their regulation, evaluation for knowledge stimulates the learners'

participation. This leads to a better consciousness of their need to form a community, facilitates the definition of a common goal and highlights what learners can receive from mutual engagement in the community. Reflective thought becomes a strategy allowing for the emergence of the community and for helping learner to conceptualise the community to which they belong, and also for achieving curricular learning.

Secondly, the building of a frame of reference, specific to the evaluation for knowledge process, leads the learners to represent and to reify the knowledge they have built about the community itself. By doing so, learners participate in a joint enterprise towards the production of a framework of reference, helping them to build the identity of their community and to confirm their goal which has become more explicit. They then contribute to the constitution of a shared history and resources.

Finally, the collective dimension of evaluation for knowledge allows for the sharing of experiences and for expression of meaning that each one grants to it. By talking about how learning changes whom they are and creates personal histories of development in the context of the community, they contribute to the development of their own identity and the one of the community.

5. CONVERGENCE IN ACTION

The two following cases illustrate the application of the evaluation for knowledge approach. It shows that this approach leads to the emergence of a community of learners, sharing the same goals, methods and tools and experiencing the feeling of belonging to a real community of learners and future teachers. It gives concrete indicators of community building and provides insight on how evaluation for knowledge could stimulate the creation of a learners' community.

5.1 LEARN-NETT project

The first one, the LEARN-NETT project (Charlier & Peraya, 2003) is a funded quasi-experimental project designed to develop a collaborative learning environment in which higher education students in nine institutions in five European countries might work together on interinstitutional team based academic activities supported by tutors from any of the participating institutions.

The pedagogical scenario allows each learner to express his/her own project firstly in his/her personal page and afterwards in his/her diary

(corresponding to the question *who am I and what am I aiming at?* in table 1). This expression is elicited and used by the tutor to suggest the group formation and to negotiate the group projects. The expression of the group project, the communication tools used as well as the main qualities reached are negotiated and described in documents available in the group virtual space (corresponding to the questions related to the participation in the community building in the table below). The evaluation criteria are defined according to the general framework decided by the teachers involved in this interinstitutional project and are applied to the collaborative work as well as the individual reflective work. Events lived by individuals and groups (time constraints, new resources founded, and so on) conduct the group to revise its objectives, tools and criteria. Again, these revisions are made in accordance with the general framework of the training system (that could also be revised after discussions between teachers and students).

These processes of participation and negotiation, for both the teachers and students, lead to the emergence of a learners' community, where they share the same goals, methods and tools and experiencing the feeling of belonging to a real community of learners and of future teachers.

5.2 DES in Educational technology

The second illustration is a third cycle training program in educational technology commonly organized by two Belgian universities (ULG and FUNDP). The training is partly organized at a distance through a virtual training platform. Each year about 20 adult students are involved. The registrations must be accepted by the staff on the basis of the curriculum vitae and personal project of the students (more often it aims at the development of a training or a tool in their professional environment). Then for each student the optional courses and the practical activities are chosen regarding to his/her project with the assistance of a tutor. This corresponds to the first question of table 1: *Who am I? What am I aiming at?*

The two first training modules invite the learners to reflect on their learning conditions and the learning scenarios they are involved in. In face-to-face, they build a common charter for using the communication and collaboration tools of the platform, they reflect on the roles of the tutors into the training and they begin to plan their personal project just like a professional of the field. At a distance, they are invited to write a journal helping them to reflect on their own learning process, to participate in the web-based forums in the platform about learning processes through technologies and to build a portfolio for presenting all their works to their tutors and peers. This corresponds to some questions in the table: *Who are we ? and what are we aiming at ? What are our common resources and*

environment? In addition, the learners build a common learning frame: common tools, common uses of the tools, etc. They also share resources and their own professional practices. The teachers are actively involved in these processes by participating in the forums, giving feed-backs to the learners about their portfolios and journals, deeply debating about their design of learning activities, etc.

Throughout the year, learners and teachers are involved together in making the training a rich experience. The learners are invited to enter the community of practice formed by the teachers: some of them become tutors of new students; training or research projects are sometimes written involving alumni and teachers; learners often stay close to the teachers by providing resources or asking advice. The teachers involved in the diploma continuously revise the methods and the tools and negotiate the collective objectives and methods.

6. INSTRUMENTATION FOR THE COMMUNITY

The Learn-Nett project and the DES training program in educational technology, where evaluation for knowledge approach was applied, are two practical illustrations of the proposal that we have tried to present and support from a theoretical point of view. It gives concrete indicators of a community building process such as sharing the same goals, methods and tools, and experiencing the feeling of belonging to a real community of learners and of future teachers. We think that it is not a matter of chance if evaluation for knowledge approach leads to the emergence of learners' communities, because evaluation for knowledge and community building are two converging processes.

Thus, the creation and existence of a learners' community does not occur inevitably as it could be anticipated by the pedagogical designer. Specific instrumentation has to be developed by the designer to assist the learners and the tutor in the process of building quality and quality evaluation. At the same time, the designer brings assistance to the emergence and existence of learners' community. Two types of instruments are used typically to implement the evaluation for knowledge approach. The first one is a tool to collect information that could take the form of a diary used for consigning experiences and reflection that will nourish reflexive thought and generate personal learning. The second one is a dialog process to develop a common framework of reference and to extract the criteria for quality evaluation.

The diary is designed and presented in such a way that it facilitates the jotting down of observation and personal reflection on two types of

learning: learning about learning within the community, and learning about the content matter. The first type of learning includes learners' preferences in connection with the practices or the pedagogical approaches, constraints, perceptions and risk management related to pedagogical change, and capacity of the community to generate solutions to tensions. The second type of learning includes reflection on the influence and the usefulness of the subject matter on personal, professional, social, or others types of projects; it also concerns future plans to become more knowledgeable about the subject matter.

The process to build a common framework of reference allows for a twofold process: the development of consensus related to the community as a social as well as a cognitive entity, and the extraction of evaluation criteria of learning. Computer-mediated-communication is used to discuss and share reflection on social aspects of the learners' community including mutual engagement, methods of participation and identity. Computer-mediated-communication is also used to host discussions on the cognitive goal of the community, its productivity and the productions that have resulted from accomplished work in connection with the curricular objective. The extraction of evaluation criteria is done by analysing the content of the discussions and by publishing them and discussing them.

7. CONCLUSION

Learning quality is grounded in individual and collective experiences validated by a community of professionals (teachers, designers and progressively learners). Thus, authentic learning is related with the realisation of personal and collective projects as well as with the reification of new knowledge, attitudes, skills and common experiences. In this perspective, learning is understood as a collective process in which individuals and groups learn through the adoption of new practices. This process is not only active, situated and context bounded, but also essentially reflective. Evaluation of learning is then based on individual accounts of the learners and to the professional community, as well as on the usefulness and accessibility of the knowledge and tools, and of the experiences being built.

From this perspective, new research and development issues arise. Firstly, there is a need to find out how to develop effective tools that could support the reification process as well as the representation of the productions of the communities. In our view, the development of technical tools for learners' communities should be embedded in a participatory design process (Reggers, Khamidoullina & Zeiliger, 2002). By negotiating the activities supported by the tools, their uses and charters, the members of

a learners' community contribute to the development of the tools as situated and adapted instruments. However questions still arise about the collaboration modalities between communities and computer scientists, and about the methods for planning their development in harmony with the evolution of the uses of the members.

Secondly, we are still lacking a description and analysis of the individual, community and teachers experiences. In fact, there are too few experiments conducted to gather such information and results. For teachers and trainers, trying out to develop learners' communities with their students is demanding. Also, they often lack of knowledge on how to create and support a community. But those who experiment this type of innovative pedagogical situation face the problem of evaluation which is central for the institution. In order to support innovative practice and quality learning, we believe that a new evaluation framework such as *evaluation for knowledge* is needed for a better understanding for this new type of learning.

8. REFERENCES

- Bonamy, J, Charlier, B. and Saunders, M. (2001). 'Bridging Tools' for change: evaluating a collaborative learning network', *Journal of Computer Assisted Learning*, Special Issue on Assessing Learning with ICT, Vol.17, n°3, p.295-305.
- Charlier, B. et Peraya, D. (2003). *Technologie et innovation en pédagogie : dispositifs innovants de formation pour l'enseignement supérieur* Bruxelles. De Boeck.
- Charlier, B. et Peraya, D. (2003). *Technologie et innovation en pédagogie : dispositifs innovants de formation pour l'enseignement supérieur* Bruxelles. De Boeck.
- Chelimsky E (1997) Thoughts for a new Evaluation Society in *Evaluation* 3, 1, 97-109.
- Henri, F. & Pudelko, B. (to be published). 'Understanding and analysing activity and learning of virtual communities'. *Journal for Computer Assisted Learning*.
- Lewis, R. (1995). Professional learning. *Journal of Computer Assisted Learning*, 11(4), 193-195.
- Reggers, T., Khamidoullina, I. & Zeiliger, R. (2002). Une « conception participative » centrée utilisateur. In B. Charlier & D. Peraya (Eds.). *Technologie et innovation en pédagogie. Dispositifs innovants de formation pour l'enseignement supérieur*. Bruxelles : DeBoeck.
- Wenger, E. (1998). *Communities of Practice. Learning, Meaning, and Identity*. Cambridge. Cambridge University Press.
- Wenger, E., McDermott, R. & Snyder, W.M. (2002). *Cultivating communities of practice*. Boston : Harvard Business School Press.