

Processes and their Support in a Developing Interdisciplinary Learning Community

Renate Motschnig-Pitrik, Michael Derntl, Kathrin Figl,
Sylvana Kroop, Sylvia Logar, Juergen Mangler and Barbara Wenninger

University of Vienna

renate.motschnig@univie.ac.at, michael.derntl@univie.ac.at, kathrin.figl@univie.ac.at,
sylvana.kroop@univie.ac.at, sylvia.logar@univie.ac.at, juergen.mangler@univie.ac.at,
barbara.wenninger@univie.ac.at

ABSTRACT

In this experiential paper we employ action research to investigate the real life processes and technology support in building an interdisciplinary blended learning community in which, at the stage of writing the article, the authors are participating. Regarding technology support, we are interested in the requirements – concerning functionality and usability – for the implementation of web-based support modules for blended communities. Regarding real world processes we explore and reflect on the expectations, significant events, and insights we gained through the participation in our blended community.

Keywords

Virtual communities, learning communities, community building, blended learning, participatory action research

INTRODUCTION

The following course was designed as a blended learning scenario for a group of young scientists who have convened for an educational purpose. So we can define our group as an interdisciplinary learning community,, aimed at creating a “practice field” where individuals can practice developing skilfulness as community member, where the group as a whole can develop a sustainable form for collective consciousness and where the individuals can learn about ideas, terms, definitions, methods of other disciplines. The course members are bound together by natural will, voluntarily and share knowledge and ideas. In the sense of educational scientist Seufert (2000): “Learning communities are communities where people join forces to deal with a subject intensively, to study jointly, to share pre-existing knowledge and to jointly address a problem.”

There are several reasons for forming learning communities. In our specific case the predominant reasons are:

- We are convinced that communities are highly relevant, potent social inventions to promote professionalisation, development, and learning. Hence, we are highly and inherently attracted to using this concept for our own development and careers.
- To become resourceful researchers and facilitators of communities we need and want to gain self experience as creative participants in our community.
- To devise and to develop technology-support for learning communities we intend to enact, we want to inspect and reflect on use of technology and virtual spaces in our community (Hibbert & Rich, in press).
- Networking among university assistants and lecturers across departments does not tend to be institutionalised as it is for example for teachers. However, the bond of the participants to the university allows for reflecting social relationships within the university’s hierarchical structure, opening access to informal knowledge about the job as assistant itself and further university career planning as well as scientific working – especially working on a PhD – in the technology enhanced learning field.

Since we view ourselves as reflective, researching practitioners, one research method that adequately meets our needs is *participatory action research* (PAR) (Baskerville, 1999; Kock, 2004). In PAR, people, in the organization or community actively participate with the professional researcher throughout the research process from initial design to the final presentation of results and discussions of the implications of their action. They thus engage actively in the quest for information and ideas to guide their future actions (White, Greenwood, & Lazes, 1991). PAR involves all relevant parties to actively and cooperatively examine current action in order to

change and improve it. The researcher is even more active and closer to the practitioners than in traditional action research. Furthermore, practitioners are involved as both subjects and co-researchers (Baskerville, 1999).

While the theoretical concepts of learning communities and virtual communities have been elaborated in the preceding papers of this symposium, the current contribution is meant to be highly practical and experiential. We intend to have readers share our experiences. We hope that there are complementary aspects readers can take with them to inform their own practice in blended community building as well as participatory action research. At the same time, the current paper itself is a multi-dimensional effort based on experience.

Firstly, it is co-edited in our blended, trans-disciplinary community consisting of educational scientists, computer scientists, and researchers from business informatics, economists, and a statistician. We use a Wiki editor for collaborative editing and report on our actions as well as experiences in this enterprise as a concrete instance of cooperative behaviour in the task of cooperative writing. Secondly, and even more importantly, since we are currently in the process of becoming a learning community we share our understanding of this type of community, reflect our learning and working processes as well as our use of the interactive web space as a virtual communication and collaboration tool. Furthermore, we explore what the whole experience means to each of us personally.

In the next Section we briefly present the concept underlying the interdisciplinary course on “Development for Technology Enhanced Learning” held for PhD students at the University of Vienna that forms the crystallization point of our community. Reflecting the 5-phase structure of action research we take the phases *diagnosing*, *planning*, *action taking*, *evaluation*, and *specifying learning*, as a template to structure the presentation of the main Section of the paper. The primary goal thereby is to share our views on the ways we benefited from each other and also the problems we encountered in our task of becoming a blended, interdisciplinary learning community. The final Section summarizes the paper and points to further research.

ACTION RESEARCH ON THE EVOLVING COMMUNITY

For more than three years researchers from various faculties and the centre for learning/teaching development (now “e-learning centre”) at the University of Vienna have had organized contacts, presentations and possibilities to share experience. From this strategic process, a group centred in the educational and translational sciences and computer science evolved whose members started to cooperate more closely.

Diagnosing

Strongly simplified, the cooperation and common interests gave rise to the idea of building a blended learning community in which young assistant professors and graduate students would participate and co-develop competence, practice, and technology. The format of an academic PhD course on “Development for Technology Enhanced Learning” (DevTEL) being facilitated by one of the cooperating professors appeared appropriate to formally initiate our community. Since learning communities and technology enhanced learning with web-based tools and rich didactics are central to our research, we have inherently been motivated to have our own experience in community building and development. Furthermore, we research our actions in order to improve them and in order to experience and reflect the potentialities and limitations of PAR.

Planning

One essential idea that should help to promote engagement in the DevTEL community was to make the meetings and contacts as useful and relevant for everybody involved as possible. It was clear from the outset that the vast majority of us teach and work on their PhD thesis in the area of knowledge/learning/media. In order to make the DevTEL community experience transferable as instantly and steadily as possible, the idea was to start with a two and a half day workshop in the very beginning of the term and to have one day workshops with structured contributions by participants every successive month. During the initial workshop participants should learn to know one another both personally and professionally. Furthermore, Juergen, one of the participants and concurrently the developer of the web-based cooperation platform called CEWebS (Cooperative Environment Web Services, Mangler & Derntl, 2004) was supposed to introduce the participants to this environment. Later, we would co-configure our ‘platform’ by selecting those services we wanted to use or experiment with for the online support of our activities. The whole workshop was planned to be semi-structured: While we would elaborate specific issues such as goals and expectations, topics of interest, and web-space configuration in a structured way, sufficient time would remain for personal expression and an evolving group process.

Before the beginning of the course, the course goals were carefully but just preliminarily stated by the facilitator and uploaded on the web platform to be available to participants. It was possible to complement the overall course goals by the participants’ goals later in the process. Since we view these goals as essential, the following is devoted to sharing the goals with the readers.

Global goal

Development of a personally effective style of technology enhanced facilitation of courses along with research methods that allow one to observe, explicate, research, and share/propagate teaching and learning practices and processes. Each participant is expected to contribute a TEL-developmental aspect that matches his or her background or interest. Collectively, the initial framework for technology enhanced learning that serves as input to the course is intended to be extended and improved. Each participant shall profit for his or her PhD thesis in so far as selected aspects will be presented and discussed with participants such as to gain a broader view on one's research questions and potential solutions. Furthermore, we intend to produce or to prepare scientific papers to be co-authored by participants.

Specific goals

- Knowledge of basic issues in technology enhanced learning, such as:
 - Teaching/learning paradigms, action-oriented and person-centred approach
 - Teaching/learning processes, models, and patterns
 - Understandable e-content, its description and structure
 - Blended learning systems structure
 - Learning/community platform features and strategies
 - Research methods
- Social skills:
 - Planning, design, and actual conduction of technology enhanced learning courses
 - Selection and application of research methods
 - Improved communication, teamwork, reflection, and modelling
 - Application of moderation techniques
 - Improved ad hoc presentations
- Attitudes, Awareness:
 - Experiencing and provision of a constructive working atmosphere based on interpersonal values such as openness, transparency, respect, deep understanding.
 - Community building and creative problem solving in teams
 - Group decision making with respecting the group as well as the individual
 - Experiencing of full personal presence
 - Capability of handling new situations

Action Taking

Process and content

Due to time constraints, the initial workshop lasted just two instead of two and a half days. We managed to go into all the structured tasks planned except for sharing our views on an article that was distributed ahead on new challenges in the helping professions and corresponding research issues. Also, less time was spent on web platform configuration. Instead of being elaborated from the participants' envisaged needs, individual web services and the mode of contributing were more or less suggested by the facilitator and discussed with the participants. When we came to fixing the dates for the coming workshops, participants unanimously preferred to have more half day meetings instead of fewer full day workshops. However, nobody wanted to trade face-to-face time for more online communication.

During the initial workshop we introduced ourselves and our personal and professional interests in the course of an active listening exercise. Subsequently, the facilitator collected the goals and expectations on a flip chart (see below). While we used moderation cards to collect issues we wanted to learn, Juergen suggested we use the video beamer for assembling the topics to be dealt with in the coming workshops. In following his suggestion we gained the experience and a consequent feeling for using different media for assisting the shaping of the community process and knowledge. The moderations cards about "What I want to learn" reflect the needs and interests of the participants of the course. In total 30 different aspects were put on cards. Most of them (10) concerned the interdisciplinary setting of the course (e.g., "broaden perspective due to different views", "practise interdisciplinary use of language", "different scientific approaches"). 8 concerned the wish of the participants for some kind of mentoring or mutual support regarding their dissertation ("how others cope with the doctorate challenge", "How other people address their research questions"). Six different thematic inputs were also mentioned that were further worked out in a specific session as described in the next paragraph. Three participants also mentioned explicitly that they want to get to know the others better (e.g., "to get to know the others better and find possible overlaps in research fields → networking").

Participants' goals and expectations

The facilitator provided an initial set of global course goals and topic-related goals of the course. In the first workshop the participants were introduced to this goal set. In the following, the facilitator hosted a session in which particular goals and expectations from participants were collected and written down on a flip chart. This way it would be possible to consider the participants' goals and expectations in a person-centred style (Rogers, 1983) during the remainder of the community process. The following is a transcript of the resulting flip-chart:

- Discuss professional communities: knowledge building/management, group process, characteristics
- Cooperative work, data collection, gaining ideas, inspiration
- Methods to trace knowledge management
- Networking in organisations, innovation; Discuss levels of networking
- Experience group process; Integrate changes due to new media; How to use media and personal presence
- Different scientific thinking; Learn about research designs
- Discuss team competence in blended learning; Reflect on learning; Learn from each other

Topics

Regarding the elaboration of specific topics the task of the participants was to share their ideas with the group, upload relevant documents, and take care for an appropriate "online continuation" of the dialogue on their issues. More specifically, each participant (or small teams of participants, not more than two people) would elaborate and subsequently, in the face-to-face meetings, present issues relevant to DevTEL and their own professional background, such as blended learning scenarios for courses in Statistics, a networking model for organizations, professional communities, development of team competence, understandable writing (Langer, Schulz von Thun, & Tausch, 2002), etc. The presentations were highly interactive including discussions with the group, and involving the group in various interactive elements such as elaborating specific aspects in small working groups, completing questionnaires, etc. All available material and results from the presentations and discussions was put online to be available to participants in the following online phases.

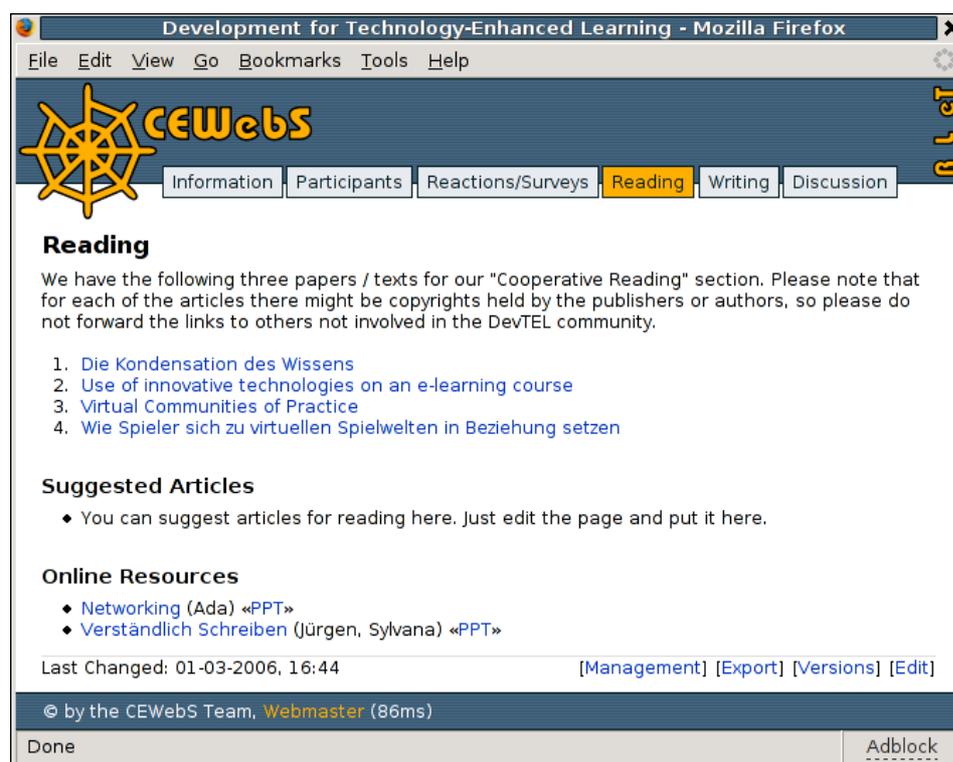


Figure 1: The DevTEL "reading" page.

Regarding the interactive web space to support our community we agreed upon having the following elements:

"Info" This publicly accessible page acts as the homepage of the community. It includes relevant information and hyperlinks regarding the description of the course (including goals, content, teaching methods, assessment mode, and relevant literature), meeting times and deadlines, resources for study (papers, slides, etc.), and links to Wiki spaces with meeting protocols.

“Participants” Includes a list of participants’ names and e-mail addresses, available as contact information to community members only.

“Reactions & Surveys” After each of the face-to-face meetings, participants were asked to submit reaction sheets via a web form (just unstructured plain text). Well ahead of a subsequent meeting the list of reactions to the previous meeting was made visible online to all community members, to be available for discussion at the beginning of the meeting. In addition to submitting reaction sheets the page allowed participants to post survey questions regarding topics and issues brought up during the meetings.

“Reading” This page contains a collection of relevant articles and online resources for community members. It was referred to as “collaborative reading,” as it was intended to use the online resources as anchors for topic-related discussions both online and offline. Figure 1 shows a screenshot of this page.

“Writing” A Wiki page in which this very paper was collaboratively written by some DevTEL participants.

“Discussions” For organisational and general questions regarding the course, we provided an online discussion forum for structured conversation among participants.

Evaluation

Meeting frequency. Retrospectively, meeting more frequently had the advantage that issues were still rather fresh on our minds when we met. However, meeting time often became too tight to follow up issues as thoroughly as we would have wished to, which is also substantiated by numerous submitted reaction sheets. Occasionally, we even had conflicts about who should be allowed to use how much time and about taking away each other’s time. In this context we experienced both the pleasure from free flowing dialogue regarding issues of deep mutual interest and the frustration from running short of time on other topics that were as interesting as others but destined to be cut off due to time limits. Although some of the discussions on the latter issues could be ported to online media, the engagement and richness of real sharing in that realm was far less than intended to be in our face-to-face dialogue. A remarkable discussion forum posting was strikingly appropriately termed “Much too calm here.”

Reaction sheets. An online activity that the facilitator suggested and that turned out to be a valuable source of sharing were the online reaction sheets that every participant was supposed to submit after each face-to-face meeting (see the “Reactions & Surveys” page above). The expression in this medium had a broad range encompassing factual issues, feelings, comments on the process, suggestions, wishes, etc. For the facilitator it served as a kind of radar allowing her to experience more of the whole course situation and to take this into account for further action and being with the participants. The following excerpts from reaction sheets are intended to give a glimpse on our community process.

After the first two day workshop Kerstin, the statistician wrote: “When describing my impressions I first need to mention the unconventional process of the course. As announced before the course started, Renate functions more like a moderator than a leader who has decided everything in advance. I liked this free flow, although, in my view, not every decision has to be discussed publicly. Sometimes a suggestion would do the job unless someone objects. Through the frequent discussions about terms and their justifications – primarily lead by our pedagogues – I became aware that often I hold just loose imaginations about some terms. The term ‘time management’ spurred me in the direction that I will try to work up to a schedule in the future.”

Ada, one of our economists shared the following: “During my course of education so far I didn’t have the opportunity to participate in a course with a person-centred teaching and learning style (at least not close to this extent), and aside from the course content I find it extremely valuable to have experience of it and to see a working example of such an alternative to the more traditional learning modes. Unexpected for me was also the diversity of the group and I am very pleased and find it refreshing that there are people from a variety of disciplines and backgrounds. I find it useful to be able to move away from your own framework of thinking (set by the educational background) and see other views and points of emphasis to the same problem. These circumstances also stimulated my thinking about the chances for cooperative research and areas where possibilities could arise where research of the group members could be complementary. Compared to my previous experiences in an educational setting, a seemingly lot of time was invested into the storming/norming phase of the group, and I expect and hope this will enhance the performing phase -- and look forward to it! This being the first PhD course I attended, I found it interesting to hear about other people’s dilemmas about how to proceed with writing their thesis. Being at the very beginning of the process, I lacked exchange with fellow students and now feel less isolated in my dilemmas and worries regarding the thesis writing.”

An excerpt from Barbara’s first reaction sheet reads: “I like the heterogeneity of the group. Two so diverse disciplines like educational science and computer science decide to sit together on one table and talk about

(seemingly) the same topics. Here it becomes apparent that, due to our different professional backgrounds, we take on different perspectives in the scientific discourse. In this community I consider it a great challenge to talk about these perspectives, to allow for the others and to revise the own one. However, I need to mention that it cannot and should not be the goal that one perspective ‘convinces’ the other. There simply exist different approaches that are justified in light of their background, but which cannot as such be ported into the other discipline. [...] Regarding the process during the two days I would have preferred some more structure. I like to have a long day structured with breaks scheduled in advance. In this way I can better bundle my attention.”

After the second structured half-day workshop Ada shares the following: “I was happy to see all the course mates together again, and to see that the atmosphere of familiarity didn’t go away. Different than in the other two meetings we had, my impression from the last meeting is that there was time missing on various occasions and that the schedule was a little too tight. It would have been nice to have some of the discussions continued, for example regarding the clusters of answers to the ‘benefits from a blended learning course.’ Yet, even though there was less time, I think it is a good trade-off to meet at somewhat shorter intervals, even for a shorter time, and I hope the meeting will give a little more spur to our online activities. The fact that I was presenting puts me into a somewhat different position than of those who were putting an effort to listen about the subject of my interest. I can understand that the topic itself is of different interest to everybody present, but I hoped to present at least something thought-provoking to everybody, given the boundaries of my present knowledge and my presentation skills and abilities. I am looking forward to online interaction and the next meeting.”

As another sample reaction Barbara, an educational scientist, writes: “What do I have to say about the last session? I felt more comfortable physically and mentally because I wasn’t faced with a full day. I found it a lot easier to concentrate especially because the setting was fairly diverse and relaxed. The fact that we switched between presentation and collaborative elements was good. The only time I had trouble keeping my attention was during Ada’s presentation. In the first part of the session it was interesting to see that regardless of our disciplinary background we consider similar things to be benefits in blended learning scenarios. Juergen and Sylvana’s presentation offered an overview on the topic of their research project. I found the discussions interesting and challenging at the same time. I’m looking forward to next time when Juergen is scheduled to finalise his/their presentation.”

During the third half-day workshop we ran out of time after Kerstin’s presentation. This was taken up by some participants... and considered in the fourth workshop. For instance, Christine, an economist, wrote: “Dear all, after today’s f2f session I have the feeling that the group process works and that we have ‘grown together.’ After our first 2-day f2f-session it seemed to me (as I put down in the first reaction sheet) that those of us with a pedagogical/educational background would have an ‘advantage’ on the contribution level. Now I realised that our group is rather homogeneous (on this aspect); and I feel comfortable with that. In the discussion concerning the first scenario of understandable writing, we could elaborate quite some interesting aspects. [...] I enjoyed Kerstin’s presentation. The topic was very interesting. It is really a pity that we had that little time for discussion. We could have given lots of input for the design of the statistics course and I think it would have been valuable for all of us. In my opinion, we could have shortened the time spot for the first presentation in order to have more time to work on Kerstin’s topic. (In the context that we already spent quite some time on understandable writing in the last f2f session, and that trying out the online examples and giving feedback on it took a lot of time as well...) Furthermore I had the impression that regarding talking time the whole f2f session was dominated by one person only. Even Renate, as this course’s facilitator, was more a listener... I am looking forward to next time. And I hope we will have lots of discussion where everyone wants to participate and can do it.”

Juergen, a computer scientist and DevTEL webmaster, wrote regarding his contribution: “Ad time: I do not feel guilty, as, more than once, I wanted to cut off the discussion and move on, in particular because I wanted to present the second scenario. However, I felt that many people still wanted to say something and that one thing contributed to another such that the time limit was passed. Therefore, now I am confused because the people who had discussed now apparently object to discussing. [...]”

Kathrin, a computer scientist commented: “I liked the workshop quite well. I found the discussion about Juergen’s understandable writing exciting since it was very close to practice. Good discussion sequences frequently arose. Therefore I did not mind it that he ‘took away time from others.’ Generally, it would never occur to me that some participants ‘take away time’ from others, since some participants do not have so many concrete things they could share or do not even wish to have a long time slice. But I need to confess that I may come to see things differently as soon as I realize that there will not be much time left in the coming units, But now I still feel that we have time and space to talk about anything we want. [...]”

Discussion Forum. The usage of the online platform was part of the community experience although not everything was receipt equally. For example the discussion forum was not used actively. In the forum with

organisational topics nothing at all was posted. In the second forum that was created for the purpose of social exchange and exchange of ideas, 7 postings were done. Interestingly the small amount of postings was addressed by a participant (Christine) in a posting called "Much too calm here..." In a further posting a possible explanation was given: "Most participants work at university and meet regularly. Therefore discussions concerning this course often take place face to face. And maybe there is no need for further exchange via this platform." This raised the interesting question in the discussion, whether 'externals' (not working at the university) were somehow marginalised within the group or excluded from the group processes due to the fact that they were not as present (physically) as other participants, working at the university.

Wiki and collaborative reading. In the collaborative reading section, 4 papers were put online to be discussed online. Three of them were discussed by respectively 5 participants (the course facilitator also took part in the discussion), the fourth wasn't that well received and no discussion evolved. Altogether 7 of the 12 participants of the course (including the facilitator) took part in the collaborative reading. The cooperative reading sessions were very important for the interdisciplinary team. You could find out in which way other disciplines were trying to operate, to solve problems and so on. The learning effect in this kind of community is extremely high, also the motivation to share knowledge. Design threats at the virtual cooperative reading sessions were the availability of the internet and the frequency of contributions. All scientists had to organize their time and energy, improving new ideas, helping other colleagues. But in time of flexible time-management through new media, it could also be the new way to face these challenges. An additional interesting aspect of the collaborate reading section was, that although the participants could themselves propose papers for collaborative reading only one participant put a paper online, and no discussion at all took place for this paper. The discussion process in the Wiki was surprisingly successful compared to the discussion forum. The discussions in the Wiki went strictly serial, no text was inserted inside the writings of other people.

The overall usage of the online facilities left a mixed feeling. We think that when reducing the presence time and making the online time more structured in the form of an agenda and meetings in the chat, the presence of the group in between the meetings could be increased.

Specifying Learning

Renate writes: First and foremost, as the facilitator I was completely reconfirmed that an interdisciplinary community is very refreshing, exciting, and motivating. Having so many different views and approaches coexist is a really broadening and enriching feeling that can hardly be described in words. Also, while experiencing that a facilitative style is a highly powerful and effective means to engage participation, I do hear the critical voices that push a more topic-related dialogue at the cost of cooperative decisions on organisational issues. A precise deliberation of issues to be suggested and others to be co-designed thus appears to be a valuable learning. Also, despite providing much freedom and allowing for the free flow of dialogue and discussion, this does not relieve me from setting some strict time limitations or at least decision points at which we collectively decide how to proceed. Furthermore I have the impression that dialogue in heterogeneous communities tends to be richer and thus more time should be allocated to individual issues than usual. By the same token, fewer topics should be scheduled in order to allow one to delve into issues in satisfying depth.

Michael continues: Being a post-doctoral researcher at the course-hosting lab, I saw my role in participating in the creation and development of this interdisciplinary community, which is located in the subject area of the research I had conducted during my PhD studies. As a facilitator in other courses, and as an experienced participant in blended learning courses conducted in a person-centred style it was particularly interesting to observe the recurring pattern that participants who are new to this open teaching/learning style often feel lost at the beginning of a course in which structure, tasks, and assessment procedures, are not solely preset by the instructor, but rather collaboratively created and discussed by the facilitator and all participants. Usually, after a short period this feeling of being lost tends to give way to an appreciation of this kind of involvement, which allows participants to more actively shape their course experience and to really benefit from it.

Juergen writes: As a participant it was sometimes very difficult for me to find my place in the course. I learned that when people from different disciplines come together and discuss about a specific subject, much time has to be spent to agree on terms and definitions. For example we found out that the terms *knowledge*, *data* and *information* were used differently throughout the various disciplines. I think it was a great advantage for me that I could present the results of my work in the form of a web-application, something that the participants could really use and play with. Therefore it was easier to discuss Sylvana's and my work, and it was interesting to hear about the other participants' viewpoints, that were sometimes quite different from mine. Because of the fact that everyone knew each other, I think the online reaction facilities were not as important, and I would have appreciated a bigger timeslot dedicated to group processes.

Sylvia adds: As a participant, educationalist and accordingly sociologist it was very interesting to discuss about different terms and interpretations in various disciplines to get a new point of view and to become open for new ideas, theories, methods which can help in the scientific community. A scientist has to look further, compare notes, sharing knowledge to become a member in the scientific community. This course was a little biotope of the scientific community where we all could make mistakes, and learn to handle this to improve oneself.

Kathrin writes: For me as a participant, this course consisted of far more than the mere course units in the seminar room. Of course the presentations and discussions in the course units were very interesting and lead to a reflection of my personal work on my PhD. I could also profit much from the interdisciplinarity and getting to know completely “other points of view” on the same topics. Nevertheless for the community process the coffee and lunch breaks in the course were even more important. In my impression this informal networking aspect of the course was intended and also promoted by the facilitator of the course. So going out to eat in a restaurant or having coffee in the kitchen lead to really good exchange. I got to know how other young scientists deal with problems at the university, which working conditions they have, how they are doing with their PhD. The possibility of writing together on this paper and even travelling then to a conference with some of the participants of the course will surely deepen this newly evolved community.

Sylvana writes: Like Michael, I am neither a regular participant nor a facilitator of this interdisciplinary course coined by Renate. But due to the fact working together with Juergen (participant as well as the technical facilitator of this course) closely connected on the same research and development project “understandable writing” for me it was hardly possible not to participate in some way and receive some new insights from my point of view. As a result and also working on my PhD. thesis in an interdisciplinary research environment I have become an attentive observer on how this course will evolve. Actually I would have liked to participate but unfortunately the first face-to-face session took part at a time I just had to give a lecture at quite another university outside of Austria. So I was not present at the first session that lasted a whole day and hence I missed the important initial position. However, I got the opportunity to observe the evolving community from three different points of view: firstly by participating at one face-to-face session, secondly by reading the provided online-forum and thirdly by talking from time to time with different colleagues about this course who were regular participants. In essence my findings result in the question: What aspects of interdisciplinary course structures are important to find a common language and understanding?

CONCLUSIONS

In general, the format of a blended learning course proved successful for constituting an initial, interdisciplinary learning community. The fact that face-to-face time by far was preferred to online time despite the absence of any single critical comment on the interactive web space illustrates the indispensable value of direct personal contact in our interdisciplinary community. The more substantially divergent and complementary views are, the more time is needed to grasp the meaning. Also, being open to experience and acceptant of diversity appears to increase any added value of interdisciplinary discourse. With much time pressure from outside and several tasks to fulfil, participants tended to look forward to the next meeting, but were quite selective in contributing online.

However, participants willingly shared their reactions and supplied all their materials, to which many participants referred back, as was apparent from various conversations. The “cooperative reading” and sharing of thoughts about papers was a meaningful experience for those who participated. Interestingly, in the context of sharing views, the linear and truly transparent form resulting from using Wikis in a disciplined way was preferred to the discussion forum. Furthermore, the cooperative writing of this paper during holiday time and tough schedules would not have been accomplished without online cooperation via smooth Wiki support. The concept of supporting a loosely coupled community by a Wiki eventually proved indispensable for cooperative writing, as did open communication and understanding among participants.

Summarizing, we experienced the true added value of complementing face-to-face processes by web technology, with the former inspiring, informing, and motivating the use of the latter. This, in turn, provides motivation to cooperate across disciplines in order to promote technical, personal and interpersonal development for technology enhanced learning. Several occasions for reflection throughout the process contributed both to participants’ learning as well as to scientific insight about our processes. Consequently, participatory action research proved highly valuable for tracing the initial stages and corresponding actions targeted at community and technology development as well as learning, and, importantly, learning about learning. Participatory action research thus laid the foundation for other research paradigms to investigate specific issues that were brought to our attention through reflected subjective experiences and their sharing.

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