The «Zurich E-Learning Certificate» A role model for the acquirement of eCompetence for Academic Staff and an example of a practical implementation

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Abstracts

English

Since 2002 the «Zurich E-Learning Certificate» offers lecturers and academic staff from the three main universities in Zurich the possibility to take part in a professional development program which supports the acquirement of eCompetence. The program is the result of a cooperation between the University of Zurich (UZH), the Swiss Federal Institute of Technology Zurich (ETHZ) and the Zurich University of Teacher Education (PHZH).

In the near future a reform of the program will be realized in order to represent the increased significance of Web 2.0 applications for higher education as well as e-research and e-science for academic staff. Therefore a change of the topics and the different modules of the program will be necessary. Furthermore the didactical concept of the «Zurich E-Learning Certificate» offers a good basis for this change because of the flexible structure and the impact of self-organization for the participants.

Based on the concept of this program and on a course in historical science at the UZH as a practical example, this article underlines the necessity for a science-based discussion of adequate didactical concepts how academic staff should become media-savvy and the importance of reflexive learning methods in further education programs to acquire e-Competence.

German

Seit dem Jahr 2002 ist das «Zürcher E-Learning Zertifikat» Dozierenden der Universität Zürich, der Eidgenössischen Technischen Hochschule Zürich sowie der Pädagogischen Hochschule Zürich ein Weiterbildungsangebot zur Förderung von E-Kompetenz für Hochschullehrende. Aufgrund von geänderten Rahmenbedingungen durch das Ende der staatlichen Förderung von grossen E-Learning-Projekten sowie die steigende Bedeutung von Web 2.0-Applikationen ist derzeit eine Änderung der Inhalte und der Ausrichtung des Zertifikatsprogramms in Arbeit. Eine wissenschaftlich fundierte mediendidaktische Qualifizierung des Lehrpersonals an Hochschulen bleibt jedoch auch zukünftig eine wichtige Voraussetzung dafür, dass sich der Einsatz von digitalen Medien im Hochschulunterricht etabliert. Das didaktische Konzept, das dem «Zürcher E-Learning-Zertifikat» zugrunde liegt, bietet hierfür eine gute Ausgangsbasis. Aufgrund des hohen Anteils an Selbstorganisation und Flexibilität in Bezug auf die Inhalte der Weiterbildung sowie durch die enge Verknüpfung mit Themen der Hochschuldidaktik bietet es eine exzellente Ausgangssituation für die Anpassung an neue und sich stetig verändernde Rahmenbedingungen. Vom Qualifizierungsprogramm sowie einem konkreten Beispiel eines Teilnehmers aus der Lehrpraxis in der Geschichtswissenschaft ausgehend, unterstreicht der Beitrag die Notwendigkeit einer wissenschaftlichen Diskussion über geeignete didaktische Konzepte akademischer Weiterbildungen für E-Learning bzw. E-Teaching und betont die zentrale Position des reflexiven Lernens für die nachhaltige Förderung von E-Kompetenz.

Keywords

e-competence, eCompetence, reflexive learning, blended learning, social software, web 2.0, teaching skills, media literacy, constructivism, humanities, social sciences.

1. Background

There already exists a number of further education and training course programs at several German-speaking Universities and Colleges that certify the acquisition of eCompetence for academic staff. In the last years the scientific discussion about this topic gave attention to the relevant contents for the instructional design of media. A debate about beneficial settings, curricular innovations and methods for such training programs are hard to find or have just a rudimentary status.

The equal aim of all these programs is to qualify lecturers to be able to integrate information and communication technology (ICT) in their courses in combination with an increase of the educational quality of the teachings. Teachers and lecturers are seen as «gate keepers» for the sustainable implementation of e-learning in schools and universities. Therefore it is necessary that pedagogical professionals are able to make experiences for themselves how e-learning integrated in a tested pedagogical concept could change the way their students could learn.

For lecturers learning from experiences of colleagues and role models is very important. The theoretical concept for this type of learning is given by Albert Bandura and his theory of the role of social modelling (cf. Bandura 1977).

The effectiveness and the benefits of e-learning do not depend exclusively on the media literacy of the lecturers but also on the instructional competence and the willingness to reform the learning strategies of their own courses. If further trainings are able to initiate a fruitful process (e.g. in which the participants get a critical view on their own courses, are able to define methods of resolution for existing problems, achieve knowledge in educational media and didactical skills for the implementation of e-learning), then it could be called a successful program for a continuing human resource development for academic staff.

Because of the heterogeneity it is not easy to compare the quality and the results of different qualification programs. A good way to evaluate the sustainability and the effects for a change of the «culture of learning» in courses is to focus on examples and operate case studies. Based on the concept of the «Zurich

E-Learning Certificate» (Chapter 3) and of an exemplary transformation in a course of historical science (Chapter 4) this article wants to be a contribution for a new discussion of the quality standards for these programs. At first this text recapitulates the aspects of eCompetence for academic staff and the importance of reflective learning for further education programs for media literacy in general and especially for academic staff (Chapter 2).

2. Competency for E-Learning at Universities

There exists a consensus that two types of competencies are necessary for the integration of e-learning in teachings at the University: teaching skills and media literacy (cf. OECD 2005, Schulmeister 2007).

2.1. Teaching skills

Teaching at Universities is a complex combination of knowledge, experience, ethics, professionalism and also mutability (cf. Bennet et al. 1996, Webler 2003). Therefore a person needs different competencies: professional competency of the academic subject, self and social competencies, communication competence as well as pedagogical and instructional competencies. The acquisition of competency should assure a high quality standard for the lectures and courses at the University.

The focus on the competencies for academic staff is two-dimensional: the duties and responsibilities concerning the academic subject are the analysis, selection and demonstration of the important aspects of the subject. These skills revert to the own academic education. But for the ability to give good lessons it needs also consolidated knowledge about instructional models, teaching methods and didactical planning. These competencies are rarely part of the academic education. Lecturers acquire these skills mostly on the job and therefore without an educational concept. To become a good lecturer a person needs to be able to learn from colleagues, from self-perception and self-reflection or by taking part in courses of academic instruction. Human resources development at Universities should imply further education programs in self-perception and self-reflection to help lecturers to acquire teaching skills. The effect for the teachings at the Universities would be enormous.

2.2. Media literacy

Another precondition for the integration of e-learning in the teachings are the media skills of the lecturers. For the definition of the media skills lecturers need for e-learning at Universities it is important to get straight what the role of media in the teachings should be and what kind of requirements for different situations this implicates for the lecturers. Media literacy was an important soft skill long before e-learning became hype, because the use of media was always a part of teachings and doesn't depend exclusively on the use of digital media.

Media literacy is often interpreted to be proficient in the special software applications. But it also implicates the ability for a reflective, critical view on media and their effects on individuals and the society. This doesn't mean a depreciative mindset towards media but a knowledge about the consequences for educational situations. Hence this concept of media literacy supposes that people and in this context: academic staff should be taught to receive an active and constructive role by using media. From this it follows that media skills for lecturers should imply the skills to use e-learning software and applications but also to have a sense for reflection and careful consideration on the effects of media in educational settings (cf. Bett et al. 2004, Fry et al. 2009).

Modern educational technologies are often open source products, are supported by special departments at the Universities or offer an easy way to use on the Web. They get more and more easy to use and there is no need for special technological skills to integrate them in lessons and courses. On the other hand there is an increase of the scale of operations and of the pedagogical aspects for an integration of a learning management system or web 2.0 applications. Most of the lecturers don't have this knowledge about the potential of media in their teachings and about the consequences (cf. Donnelly & McSweeney 2009).

Summing up these aspects means that media literacy is concerning with the pedagogical consequences and not with technical problems. For the pedagogical and teaching skills it needs the reflection on the traditional lessons and courses to reach a higher standard for e-learning. The choice of an adequate technology for a special instructional model is important for lecturers and the reformation of teaching in Universities.

2.3. Reflective competence as a core competency

As shown in the former chapters teaching and media skills are basic components for an effective implementation of e-learning. For a change of former habits in teaching and learning at the Universities it needs also reflective competences. All skills together can build the framework for a model of eCompetence or e-teaching competence for the academic staff. It's a matter of the right "mixture" of these components.

Regarding the implementation of these still very abstract guidelines, the question arises whether all the teachers really need the same or all of these skills. Moreover, a characteristic of higher education is that teaching has not the same value as the research activity. The focus lies usually on the staff's own research results in each discipline. Scientists are experts; their main tasks are seen in the field of research. An incentive for their own activities is especially their reputation within the «scientific community» based on research and publications.

The design and implementation of lectures and courses are usually based on a field-specific «tradition». Very often, therefore, the contact with new teaching and learning media and methods takes place within the specific scientific community.

The thematic specialization in such a field thus has its counterpart in the specialization in media use and the didactic design. The current «expert culture» along with individual interests and abilities should not be an underestimated factor for the acceptance and different attitudes towards new media and their role in teaching (cf. Wildt 1996).

This access is limited, however, in interdisciplinary subjects like e-competence. Therefore, teachers need training opportunities, which will help them to put individual ideas for specific deployment scenarios into practice. This can be successful, if the training offers a critical reflection of their own didactical concepts through an interdisciplinary discourse. The Training should also indicate ways of constructing new social forms of teaching through appropriate media vehicles. It has shown that problems in e-learning are often due to inadequate teaching and integration of media into the classroom (cf. Schulmeister 2005).

Training programs of eCompetence must be built in a way that lecturers can be picked up in their own

expert field, so that they can bring in the characteristics and problems of their own courses. At the same time, they should have the possibility to reflect their activities while comparing them to the practice in other fields (cf. McDrury & Alterio 2003, Brockbank & McGill 2007, Light et al. 2009).

3. The «Zurich E-Learning Certificate»

The «Zurich E-Learning Certificate» (http://www.elc.uzh.ch/e-zertifikat) was established in the year 2002 and is addressed to lecturers who work in an e-learning project or want to be able to integrate e-learning in their lessons and courses. This further education program is composed of three components: the attendance of special courses in the academic instruction program, the reflection about the courses with colleagues in an online forum and the writing of a self-reflection report about the own experiences with the integration of e-learning in Higher Education.

The courses in this certification program are purposeful a part of the normal program for academic instruction of these Universities. This should assure that the focus of these courses is a pedagogical point of view and not a technical focus. The participants could choose a defined number of course from these categories:

1. Basics of e-learning
2. Instructional Design
3. Psychological aspects of learning
4. Online-communication in e-learning scenarios
5. Evaluation of e-learning
6. Formal and informal assessments
7. Multimedia production
8. Text formatting
9. Usability
10. Project management for e-learning
11. Cooperative and collaborative e-learning
12. Virtual classrooms

The participants are free to choose the topics they are interested in. This allows a maximum of freedom for the choice of topics and time flexibility for an individual arrangement. Beside of this flexibility the participants are forced to discuss with each other in the online forum about their experiences in these courses, the pros and cons of e-learning in Higher Education and about the consequences concerning the instructional design of their teachings. The report at the end of the qualification program has to be a self-reflection of their own experiences with an individual concept and the implementation of e-learning in their lessons and courses. The report is reviewed by experts and is stated at assessed values. The whole workload is approximately 450 hours.

A mix of methods mainly characterizes the courses: Based on real teaching scenarios the use of e-learning methods and applications is discussed. Teachers and Lecturers can appropriate the use of these methods and applications in the course, so that they are able transfer not only theoretical but practical knowledge. The participants must create their own media products and use new technologies in relation to their own lectures.

The three universities are not virtual universities. Therefore the certificate program offers courses that favor blended learning aspects, i.e. the integration of media presence in the classroom, such as a «Wiki-Weblog-course» or a course about «motivation and emotion in e-learning». Many courses have a blended learning design themselves. Teachers and lecturers, in the role of learners, are able to make experiences with the impact and effort of different computer-aided methods of learning through various forms of social and group work in the learning process.

3.1. Reflective Learning in the certificate program

The acquisition of eCompetence is not only a matter of imparting theoretical and technical know-how, but foremost a matter of a didactically meaningful integration of media in the classroom in everyday teaching. That these forms can be found, a self reflection is needed regarding the general ways of integrating media as well as the teaching activities and the teacher's role – i.e. a reflective actionability (cf. Dehnbostel & Gillen 2005, Donnelly & McSweeney 2009).

Especially the reflection stimulated by the certificate's online forum and the final report is a critical success factor for a didactically meaningful implementation of computer-aided teaching and learning. The moderated online forum serves as a platform for social reflection of the topic areas from the compulsory and optional areas of the e-learning certificate. Within the forum, a multi-perspective and interdisciplinary dialogue is encouraged, because most of the participants are from different departments and did not make the same courses.

The socio-cultural aspects, such as e.g. the change of the teacher's role perception, can only be picked up in training programs with integrated social learning situations.

This is getting more and more important, because the interaction and patterns of activity in «Web 2.0»-applications or net-based ICT lead to different teaching and learning processes. «Social Software» is changing the role perception of teachers and lecturers and of lectures and courses itself. Students take over more and more responsibility for their own learning within and outside the classical forms of university teaching such as courses or lectures. This has an impact on the entire teaching process which cannot be neglected. Self-reflection of teachers and students must therefore be seen as a central component of e-skills development and has to be specifically suggested. Thereby it is important that the teachers and lecturers are not only encouraged to self-reflection but –in a second step – that they can support their students in doing so. At this point a methodical broadening of the definition of eCompetence is needed concerning the imparting of abilities to self-reflection.

One can see clearly that it is simply not enough just to acquire knowledge about new forms of media. Above all, the component of self-reflection must be a core element of eCompetence training programs. How these abilities can be performed and transferred into educational practice can be shown by the following example of teaching practice at the University of Zurich. The didactical design of this course was designed and employed during the participation of the certificate program and has been heavily inspired by the program's content.

4. «History 2.0»: Reflective Learning in university education

The didactical concept of «History 2.0» was realized in a beginner's course at the Historical Institute (Historisches Seminar) of the University of Zurich.

This course contains an inauguration in the studies of historical science. Therefore it has a wide range of learning objectives: The students should learn how to write an academic thesis and how to present the work. They should learn how to read scientific papers and to discuss about different topics. Although it is a basic course there is only two hours face-to-face semester periods per week offered for this fundamental course.

Two problem areas resulted from this content overload accompanied by simultaneously under-supply with time and space for social interaction: First, there's very little time left for reading and discussion. Secondly, experience shows that the sustainability of the mediated content and social integration within the group remained at a very poor level: After the weekly face-to-face event the communication with the teacher and among the students dried up or never raised to an intensive level, because the gap between the face-to-face meetings was too big. Not until shortly before the next event showed up, the presence of attention again rose sharply, but mostly too late. This resulted in a insufficient course preparation: Important documents were missing respectively could not be found in time, an e-mail of the lecturer did "not arrive", papers had not been read or under hot time pressure etc. The students were often poorly prepared, which affected directly the quality of the meetings and of the course in general.

From this perspective, the possibility of a centralized information and communication space – which can be accessed anytime and from anywhere – seemed very attractive. Given this possibilities, presence teaching in the classroom could concentrate on the training of abilities that can only be trained in face-to-face situations: Especially holding presentations and paper discussions – by the expansion of the communication and discussion opportunities in the online phase, the sustainability of the discussed content intensified.

The experiences described here are part of the final report written to obtain the «Zurich E-Learning Certificate». The report has been appreciated as an example of «good practice» in realizing the programs aims, especially because the project transfers the principle of reflective learning by the teaching person onto himself and onto the learning process of his students. In the last three years this scenario – as described above originally designed only for a beginner's course –has been transferred to all courses of the basic and to part of main studies of historical science at the University of Zurich – generally it is applicable to any courses of the described type, especially in humanities and social science[1]. This course influenced the whole historical institute at the University of Zurich and is finally one of the positive results of the «Zurich E-Learning Certificate».

Self-reflection is one of the key learning targets in humanities and social sciences in general and specifically within the curriculum of historical science: The training of students concerning the constructivistic nature of knowledge, the alignment of different perspectives, the critical examination of existing knowledge and the thinking in contexts belong to the daily bread of teachers in history. In the context of a University, the inclusion of internet-based information and communication technologies (ICT) offers new opportunities: on one hand, the small presence degree of the curriculum (not more than a few hours per week) can be extended. On the other hand, the new technologies of the so-called «Web 2.0» (e.g. Wiki- and Blog-technologies etc.) deliver possibilities to assist the specific core competencies. The project «History 2.0» pursued by means of an integrated blended learning approach the target to develop deployment scenarios for such technologies to support inter alia the self-reflection of students.

4.1. Conceptual Design

The project was inspired by the content of various certificate program courses and by relevant knowledge interests in humanities and social science subjects learning customs: what forms of e-learning, which teaching scenarios are suitable to support the typical course-type called «Seminar»? Which of these scenarios may also support the achievement of the curriculum's core competencies? And which e-learning tools are useful/appropriate to implement these scenarios?

Practical experiences, the exchange/discussion with other project managers and the consultation of relevant literature (cf. Reimann-Rothmeier 2003, Schiltz & Langlotz 2004) led to the following assumptions: First of all a blended learning approach should be followed, whereas presence teaching would always stay in the core of the teaching process. Secondly, the selection of instruments should generally prefer social software (e.g. groupware, based on concepts of CSCW) to self-learning instruments (WBT and CBT) because of the communication and interaction possibilities, but a useful combination must not be excluded.Groupware (Collaborative or Cooperative Software) is a term that characterizes electronic instruments which support time and site-independent cooperation among a learning or a research group. The term has been replaced by the term »social software« as a generic term for interactive ICT-tools (Mail, Discussion Forums, Blogs or Wikis etc.). Groupware is the implementation of theoretical foundations of computer group work (Computer Supported Cooperative Work [CSCW]) in a specific application. It is the conceptional counterpart of self-learning software such as a Web-based or Computer-based Training (CBT and WBT).

The communication and interaction possibilities of Social Software allow to satisfy the specific need of a – at any time and from anywhere accessible – space of communication and interaction. Furthermore, the use of Social Software as support and not as a substitute of presence teaching is better suited than self-learning instruments to support the acceptance of computer-supported teaching within the academic context in general.

«Blended learning», a term that emerged several years ago, means more of a basic concept as a clearly defined strategy: «Blended learning would like to stress that E-learning is basically a combination of both ICT-based and non-ICT-based learning.» (Back, Bendel & Stoller-Schai 2001, p. 288). The success of this term refers to the attempt to mediate between traditional teaching and the use of ICT. This tendency is dominating the e-learning discussion for several years now, succeeding the initial hype of the purely virtual teaching: «Seen from the position of the presence teaching and learning (and thus also from the position of academies) blended learning is a term for combining traditional methods and media with the possibilities of e-learning. However, the focus still lies on presence teaching» (Reimann-Rothmeier 2003, p. 30).

Blended learning concepts differ on the degree of integration of ICT: The smallest integration of ICT is defined as the so-called «enrichment concept, which is mainly characterized through face-to-face events enriched with media (such as Internet sources, electronic scripts, interactive exercises or simulations).» More adequate for the courses at the Institute of History is the so-called «integrated concept», «in which the use of the media is equivalent to the elements of face-to-face teaching. Presence teaching and the use of media are concerted to a coherent whole and are based on specific, clearly defined tasks» (Dittler and Bachmann 2003, p. 180).

Why is such a concept in terms of teaching and learning at the Institute of History making sense? The use of internet-based tools in the literature related to the typical form of face-to-face-teaching (two hours of presence teaching a week during the semester) can be considered as adding value for the following reasons:

- Basic ICT-skills acquisition for teachers and students.
- Ease of course-organization via time- and site-independent information and communication.
- Continuation of presence teaching in the virtual space, to support the sustainability of the lesson's content and to promote social cohesion and group integration by deepening the treated contents trough interaction.

In particular file deposits and discussion forums are a very useful supplement to presence learning, because the acquisition of core competencies in humanities and social sciences (such as analytical thinking in contexts, multi-perspectivity, establishing an own proper critical position etc. pp.) is based on the merits of discussion and of writing work in progress. The new available media tools deliver interactive and cooperative possibilities to support a constructivistic point of view of knowledge. Schiltz and Langlotz e.g. favourite the integration of forms of e-learning into a seminar because of its more communicative character compared to a lecture. They carry out further that the primary objective of an integration of e-Learning in a typical humanities' seminar should provide «new collaborative communication scenarios to develop a didactic design which adds value to the humanities». The situation demands «creative solutions integrating ICT in the course in an elegant way, so that the didactical opportunities and the in-course communication can be extended. The discourse must be splitted in a presence as well as in an online phase» (Schiltz and Langlotz 2004, p. 247-248).

As shown above, the advantages of ICT-integration do not only end in practical facilitation of everyday life-teaching: cooperative, interactive forms of scientific teaching support a constructivistic-oriented knowledge gaining. Throughout the integration of ICT in everyday life teaching core competencies can be promoted: «Main skills such as construction and deconstruction, the balance of different perspectives and critical examination of the application of methods can be well implemented, and scientific social skills (structuring interaction, defining terms together, reflecting the process of writing, thinking in contexts) will be promoted. There's another advantage: the produced content is not completed, you can continue the work, and this corresponds definitively with the discursive nature of humanities and social sciences» (Giaquinto 2006, p. 21).

Testing and promoting cooperative forms of internet-based work allow participating actively in the current innovative developments, especially the collective development of content through interactivity and cooperation tools (e.g. Wikipedia). Social Software can help core learning targets of historical studies to be followed. It may also help strengthening the social interaction and group integration within students – in contrast to many widespread fears – if it is used as a complement to presence teaching in a reasonable, complementary way.

4.2. Implementation

To create (and to experiment with) a time and site-independent communication and interaction space, a Swiss groupware called «Educanet» (http://www.educanet2.ch) has been implemented in the historical course.

Educanet, because it has been developed for high school-environments and needs, seemed more appropriate than the within the academic field in Switzerland widespread groupware BSCW that has been designed for advanced research groups (»Basic Support for Cooperative Work«, cf. http://www.bscw.de). Educanet is part of «educa» (cf. http://www.educa.ch), the official platform of the Swiss Education Server. Educanet is sponsored by the Swiss Federal Office of Professional Education and Technology (BBT) and the State Education Directors' Conference (EDK). Educanet's interface is a clearly arranged «replica» of a class room-environment with a timetable (calendar), task lists and various instruments such as interactive discussion forum, file storage, a Chat and a Wiki. (cf. Figure 1).

Figure 1. Educanet: Screenshot of the course interface «Proseminar Geschichte»

The implementation was motivated – based on the described ICT-chances/possibilities for humanities and social sciences – by the following course-specific objectives and expectations:

A. Objectives

- A centralized and easily accessible electronic storage room for all course-specific content.
- An easy-to-make, sustainable and intensified communication and interaction with the teacher and among students compared to the pure face-to-face event.

- Improved social integration compared to the pure face-to-face event.

B. Expectations

- Support of the course' sustainability and intensification of learning effects in a significant way by the e-learning component.
- Social integration and interaction among the participants of the course are encouraged because of the greater bandwidth of social interaction.
- The improved and technically documented interaction between students and the teacher as well as among the students can benefit a «we-feeling » as a «research community» and may help establishing the course as an everyday (e.g. continuous) «Rolling Research».

At the beginning of the course all students have been informed about the implementation of Educanet in the course as well as about its meaning and purpose. Further, they learned how to handle Educanet. The implementation has been justified by the large and numerous learning aims in disproportion to the very limited presence time of the course.

All students had to fulfil some compulsory tasks attached to the Educanet's instruments. This concept of «pushing» students toward the use of interactive online-instruments is useful to reduce possible (mainly technical) inhibitions. This fact resulted from intensive discussions among the participants and with the staff of the certificate's courses.

The tasks were thought to support self-reflection: the students first had to write a brief «feedback» (like a personal protocol) to a certain number of presence course sessions. Then, they should post it in the discussion forum. In this feedback, they should consider their own personal benefit that they had taken from the lesson, mention their questions that had been stayed unanswered or popped up afterwards as well as possible critics they had to make. In addition to the barrier-reducing effect of this task it intended to support group integration by giving the opportunity to the students of expressing their own opinions and by reading and commenting other opinions and points of view. On behalf of these feedbacks, the teacher had the possibility to receive a feedback to his work and to hear about the questions and problems that had been opened. This «feedback-cycle» did decisively make a contribution to the generally excellent ambiance of the seminar and to the sustainability of the mediated content. Secondly, all students – divided in workgroups – had to write several «official» minutes, which were summarizing and commenting the lesson's content. Again, these files had to be placed in the file storage space on Educanet. Last but not least, the exchange of all course-materials (meeting documents, worksheets, protocols, papers of the working groups etc.) run over the platform.

Experiences

The implementation of e-learning in the course concept means additional work and expense for the lecturer. A new instructional design had to be created, new content had to be developed for the technical environment. The students had to be thought to use the technical platform and needed support for the online communication and online collaboration.

And furthermore the preparation of the online teaching and the face-to-face course was an additional work and expense for the lecturer. Without that personal engagement e-learning in Higher Education still seems to be impracticable.

Nevertheless, from the perspective of the teaching person the use of Educanet can be described as very successful and enriching. The cohesiveness of the seminar group was wide above average. The students felt themselves taken serious by having the opportunity to influence the course's content by positioning their problems and open questions. Because of the feedback the course level could be adapted in a flexible way to the direct needs of the students. Therefore, they were highly motivated.

Furthermore, the implementation of Educanet led to profits also from a practical point of view: the students were generally very well prepared concerning the up-following meeting content – because they all knew where the tasks and the relevant documents could be found. It was easier for them to act in self-responsibility because of the existing virtual information and communication space.

Overall, the use of these instruments led to a support of giving an idea of one of the most important and most abstract key learning targets for historians: that there is no dogmatic way of historical scientific work that one can learn by heart, especially not in the methodical and theoretical field. Everyone has to develop an own position by reading, writing, discussing and communicating together with others.

A difficult factor to deal with was the beginner's knowledge-level of the students and their lack of experience within the academic environment. In courses for advanced students one could profit much more of the benefits that the groupware offers. As a constricting condition it must be said clearly, that the groupware is only applicable for student groups up to approximately 20-25 persons. At events with a lot more students, which it occurs unfortunately often at advanced courses, this scenario cannot be readily transferred.

4.3. Evaluation

The implementation of Educanet was evaluated in a summative way in close cooperation with the universitarian E-Learning Center. For this purpose, a specific evaluation questionnaire was developed and distributed among the students at the end of the course.

The questionnaire's design based on the objectives of the deployment. The main focus lied on the use of instruments and the access frequency, the type of activities for which Educanet has been used, the impact on learning and on the social interaction compared to conventional events.

Results of Evaluation

- Usage: Educanet was used by 90 percent of the students regularly, i.e. several times a week. The students posted lesson feedbacks and other comments and questions in the discussion forum, they placed files in and took files from the file storage, they communicated within the workgroup by chatting (rarely) and mailing (more often). On the one hand, the instruments not linked to a compulsory task were little or not used (e.g. the integrated Chat). On the other hand, instruments that were linked to such a task were used more often than the tasks prescribed it (e.g. discussion

forum and file storage).

- Learning organization: for 75 percent of the students the use of Educanet facilitated the organization of their learning management and helped them to save time. Slightly more than half of the students were of the opinion that their own productivity had increased thanks to Educanet.
- Communication / interaction: a clear majority had the impression that the interaction and communication between the students and especially with the teacher had broadened and deepened thanks to Educanet. As the most common activities have been mentioned: uploading and reading of documents, feedback to the teacher, repetition of the lesson's content, communication among students under participation of the teacher [organization and substantive work of the working groups, general questions to the teacher / to all etc.]. For example:

Some students put their self-reflection on certain learning content in the discussion forum as well as a file in the file storage, although they were absolutely not obliged to: for example their thoughts and reflections about important and abstract historiographical terms like «explaining and understanding», «historical judgment« or «historical fact» or questions about objectivity and or subjectivity of historical research [cf. Figure 2]). As a result of these initiatives, substantial scientific discussions emerged from these reflections under the students and the teacher, observable and traceable by all:

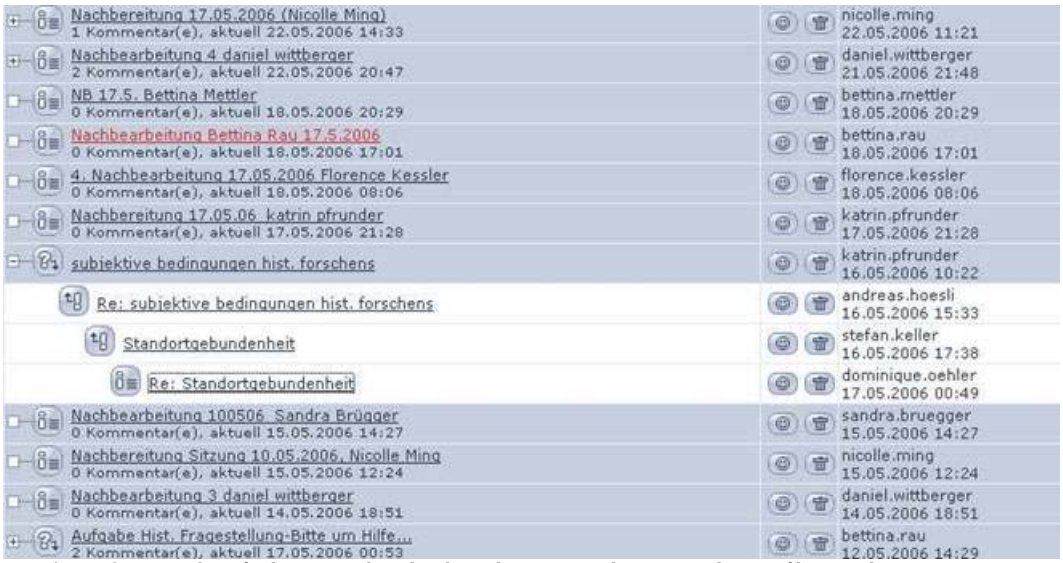

Figure 2. Screenshot of a discussion thread within Educanet2: »subjective conditions of historical research«
(i.e. dependency of every scientist on his point of view).

- Sustainability: questions concerning the personal benefit from the use of Educanet were answered not as positive as above, but still in a favouring way. A majority was of the opinion that the whole teaching deepened. The acquisition of expert knowledge as well as the personal responsibility of the students and as a critical approach to historical events would potentially be encouraged.

5. Conclusion

On the one hand, the main focus in designing university training programs in the field of eCompetence lies on the transfer of teaching skills and media literacy. On the other hand, this transfer must be adapted in a flexible way to teaching traditions in each academic discipline and to the individual teaching knowledge of teachers and lecturers. Thus, the transfer itself has to become reflexive.

The self-reflection within the program, which aims at supporting the target group in their individual teaching manner and in the same time encourages them to reflect their own acting, can – as a practical example – promote the principle of reflexive learning in university teaching and in the meantime support and integrate possibly existing practices in academic disciplines, as the case study «History 2.0» demonstrates. In this project, inspired by the participation in the e-learning certificate, a consciously chosen e-learning tool has been deployed with emphasis on reflexivity specifically to support the learning goals and to reinforce the learning process.

Based on this example, it becomes clear that it depends on the eCompetence of the teachers and lecturers whether the useful integration of ICT in higher education at universities can be successful or not. This competence enables teachers and lecturers to choose the appropriate e-learning tool and the appropriate didactical design, which corresponds most with the needs of the target group, with the environment, the professional content and learning objectives.

It is helpful if the training and knowledge transfer in professional practice can take place simultaneously. This is achieved especially in an open, modular training concept which provides enough space for the necessary time and content flexibility.

The design and the implementation of a university course or lecture parallel to the corresponding e-learning training action supports teachers and lecturers in the implementation of their ideas through the activated reflexive and metacognitive processes. This demonstrates the impact of the integration of reflexive processes in advanced education programs to teach eCompetence. Similar training formats with a strong focus on the reflection of their own practice make a contribution to the overall paradigm shift in concepts of advanced training (cf. Wildt 1996, Brockbank & McGill 2002) and are therefore designed in a more open and flexible way than previous programs. In our opinion, in the (further) development of such programs the integration of self-reflection must even be strengthened as a key element in higher education and advanced training.

Because of the fact that the newer e-learning tools and Web 2.0 applications are easier to learn and to handle many lecturers and academic staff are looking for a concept to prove their self-taught competencies. A flexible concept like the «Zurich E-Learning Certificate» should implement informal learning as well as training modules. Therefore a reform of the concept is in work in order to offer more ways of learning for lecturers and academic staff.

[1] For further information cf. http://www.phil.uzh.ch/elearning/EL-Uebersicht/p21.htm

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