# Möglichkeiten und Probleme des Lernens in Computernetzwerken

English: Possibilities and Problems with Learning in Computernetworks.

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# Introduction

'Possibilities and Problems with Learning in Computernetworks' is the English version of the title of the course I followed in Munich. It is a course (or a seminar; that's what they called it in Munich) delivered through Internet. The technologies which were mainly used are:

- WWW
- computer conferencing system on the WWW, called Koalah
- e-mail.

If you look at the scenario's given by Betty in the first week of On-line Learning, the course in Munich best suites the 'Course delivery via the WWW'- scenario. The WWW was used to show the coursematerial (articles and activity schemes), to show references and other resources and to communicate between the students mutually and the students and the teacher. This communication took place through the use of a computer conferencing system - called Koalah - especially constructed for this course. The name Koalah is just made up by the teachter or the people in Munich and stands for 'KOoperatives Arbeiten und Lernen An der Hochschule'.

The participants of the course were mainly students of the University of Munich and Regensburg, but also some participants of Erlangen and Twente joined the course. The language used was German. But after a while I changed my writing to English, although I still mostly had to read in German.

# **Goal and activities**

The goal of the course was to learn the learning opportunities of the worldwide network called Internet. The course consisted of the following components:

- 1. Introduction
- 2. Reading and discussing literature in a small group
- 3. Becoming familiair with network technologies in a small group
- 4. Becoming familiair with projects in a small group
- 5. Final discussion

First the participants had to introduce themself and give their interests about certain themes (1). Then we were all divided in small groups from 3 to 6 persons. You had to read (a) certain article(s), make a summary of it and combine the summary with the summaries of your partners within the same group. As group you wrote about a certain theme (2). For the third assignment we were again divided into small groups (other groups than with the second assignment). Then we had to find certain information on the Internet through the use of a specific network technology, in my case with help of a mailinglist. The goal was to become familiair with these network technologies (mailinglists, newsgroups, WWW-pages and search engines) (3). For the fourth assignment we were again in different groups and we had to become familiair and analyse an educational project on the WWW with our literature read in assignment 1 in mind (4). At the end we had a discussion about the course itself, a so called meta-discussion.

And throughout all the assignments we used the conferencing system, Koalah, to discus our progres and our opinions. Here you can see an example of a discussion: <u>Assignment 1 with the theme: Characteristics of Computer Mediated Communication</u> (note: link isn't correct anylonger). To put a message on that WWW-site you had to send an e-mail to a certain address.

If we look once more back at the first week of On-line Learning, Betty talked about instructional components for course delivery:

- 1. Teacher presentation of concepts and information
- 2. Communication between teacher and student or between student and student about the learning content
- 3. Communication in the form of a discussion among more than two persons about the learning materials
- 4. Self-study, primarily involving reading
- 5. Individual practice and consolidation activities, such as exercises or essays, with some form of feedback
- 6. Group activities
- 7. Assessment and testing activities.

In the Munich-course the components 2, 3, 4, 5, 6 were included. There was a continuing communication and discussion between the students and between the teacher and the students. The communication between the students took place mainly through the use of the conferencing system Koalah (sometimes through e-mail), the communication between the teacher and the students took place mainly through the use of e-mail but also through the conferencing system. The self-study component refers to the study of the literature in assignment 1 and perhaps also the reading and analyzing of the WWW-project in assignment 4. With the writing of the summary in



assignment 1 the individual practice took place. And in all the assignments there were groupactivities.

On the other hand the teacher didn't present the concepts and information, but they were just on the WWW-pages for us to read. And there were no assessment and testing activities at all.

## **Opinions and conclusions**

For my personal opinion and conclusions you have to come to the meeting on the 25th of april 1996 at 8.30 in the Mac-room. Armin Weinberger, who also followed this course in Munich, will tell you his opinion on that meeting. So you're gonna hear course experiences from two different perspectives. See you then.

#### Transcript of the presentation:

Armin Weinberger and I will tell you something about a course we followed in Munich. The purpose of this course was to learn the possibilities and problems with learning in computer networks. Armin followed the course in Munich itself, I followed the course in Enschede. The students came from three different places in Germany, mainly from Regensburg and Munich, and 2 from Twente. The course was given through the use of Internet, with help of the technologies WWW, e-mail and a WWW-conferencing system, called Koalah. This conferencing system was placed on the WWW and was especially constructed for this course. The course consisted of 5 components. The first one was the introduction of the participants, the last one was the meta-discussion of the course. The other 3 parts were the 3 assignments we had to do within small groups. (The first one was about reading literature, the second one was about getting to know how to use the technologies of the Internet to collect information, and the last one was about the analyzing of a existing educational project on the WWW.) All these assignments were carried out in rotating small groups.

#### Language problems

I have misjudged the difficulty of the language German. I thought in the beginning: I can read and write in German, and then I can also learn some extra German words. Wrong! If you must discuss a lot, like in this course, the German language will slow down the conversation. Even English makes things more slow, but faster then German off course. We had to read in German, the writing could be done in English. Especially with the literature-assignment (assignment 1) I had difficulties to read the long summaries in German. Because it takes some energy you put the german-writing aside and go on with other things. I think that this incomplete control of a language is a barrier for the learning outcomes. I missed certain things because I didn't interpretated the sentences or words right or because I didn't have the time to read all the German pieces (also the pieces of other groups).

#### Communication problems

Because the discussions didn't have any form of structure - they were anarchistic - everybody just send a message whenever he felt like it or whenever he had the time. This was often the cause of very slow discussions, and that's why most assignments couldn't get done it time. For this problem it could have been a solution to assign each student with a certain task, like a moderator and a reviewer. Another problem with regard to structure was that of the lack of a good group memory. The WWW-conferencing system does only have a chronological ordering of messages. It would probably be better if those message could be ordered by for example date, author and subject. And it was also better if you could see the difference between certain messages, if a message was a question for a discussion or if it was a long page with a summary for example.

#### Motivation problems

I think that the motivation for completing the assignments in time wasn't there. I think the cause of this was because there was no pressure to finish them. And if there is no pressure you will first finish your obligations that have pressure on it and put the Seminar in second place. I think this is wrong. You have to put this Seminar on the first place and some part of it is the job of the moderator to accomplish this. For example: In this course (On-Line and Distance Learning) you have to work for marks/points. For every assignment you get points. All those points together will make your final mark. So if you don't do enough you can't pass this course.

#### Clarification and feedback problems

The feedback we got from the teacher was (for me) mainly about the purpose of the assignments. Feedback on the content itself was rare. Because the clarification of the assignments took up so much time, we almost didn't have time to communicate with the teachter about the content of the assignment. Although in this environment it was possible to do so. Why this communication wasn't that well, I think is due to the lack of audio-visual cues. If you talk to someone face-to-face somebody can emphasize some words, he can see people who are looking difficult -like they don't understand him- and he can explain it in a different way and this takes a lot less time than when you have to explain it again via the Internet.

#### Social-comfort problems

Was it a disadvantage that the participants didn't meet each other? (Though I think that this only accounts for me and some others, because there were a lot of students in Munich and Regensburg who were at the same University.) I think that this is hard to say. In a way the lack of face-to-face contact is an advantage while now you talk to each other on the same level. You don't know each other, so you mostly talk to all the people the same way. On the other hand, with a face-to-face contact the discussion could have more speed and you don't miss the audio-visual cues.

#### Logistic problems, such as access to technology

In general this went ok. But I heard from Koos Winnips that his connection at ITC, where he works on his doctoral assignment, was



pretty slow. Although there aren't any pictures (just one) on the WWW-pages, he still had difficulties with the connection. The connection here at TO is a lot faster. Another technical problem was that the messages sent by e-mail to the Koalah conference system, didn't always get there in the right way. For example if I wrote an F in my message, the system didn't recognize it and just didn't show the F and the whole sentence after that either.

