

Abstract

How to Teach Teachers to Teach with New Media – Initial and Further Teacher Education in a web-based Collaborative Distant Learning Environment

Prof. Dr. Peter Gorny, University of Oldenburg, Germany
gorny@uni-oldenburg.de www.eL3.de

Objectives

Investigations of the present situation in German schools show, that only a minority of teachers actively uses Information and Communication Technology (ITC) for teaching or for the preparation of teaching material: in 2000 approximately 5 % of the teachers used computers in the classroom, and only 2 % used the internet.

Several Federally funded initiatives, especially the Programme New Media in Education, have been started in order to improve teaching and learning in schools. Within this context the Universities of Erlangen-Nuernberg and Oldenburg are developing a system of courses with three goals:

- enhancement of the individual teacher's "media competence" and improvement of his/her ICT skills;
- solid knowledge of the methodological implications of ICT applications in the classroom ("ICT didactics");
- solid knowledge of the methodology for creating media competence in the students ("media pedagogics").

Since the two project partners pursue slightly varying concepts und use different organisation forms (due to regional influences and restrictions), we will in this paper refer to the concepts of the team in Erlangen as "eL3-South" and of the team in Oldenburg as "eL3-North".

Target group:

1. Teachers in service (General and vocational schools),
2. Teacher students in their 3rd or 4th year (only eL3-North).

Course concept

One leading principle for the courses is the subject orientation, so that teachers (of all school types) can jointly work on ICT applications for their specific school subject. Therefore we are developing separate courses for teachers of English, French, Religion/Ethics and Geography in eL3-South and German, History, Mathematics, Biology, Chemistry, Physics, Music and Fine Arts in eL3-North. Other school subjects will follow.

There are three course types:

1. "Basics of ITC applications in subject X", mostly stressing the teacher's use of ITC;
2. "New Media in subject X", aiming at developing the teachers' competence in ICT didactics and media pedagogics;
3. Special courses for areas with higher technological complexity, such as the design and development of new interactive teaching and learning material: database applications, simulations, animations and video films.

The course material is structured in modules, which allow individual sequencing. The modules are designed to support open, self-organised, exploratory learning, especially also in cooperative situations.

Course format

For one distance education course a learner will have to work between 50 and 60 hours (approx. equivalent to a one-semester university seminar with 2 hrs/week through 15 weeks). The course will start with a "real" meeting of all participants from one region with their lecturer and the tutors. Two other "real" meetings will follow. Between these meetings the group communication and the contact with the tutor is virtual.

Cooperative Learning

The learning platforms for the courses (eL3-South: ILIAS, eL3-North: HW eLearning Suite) support group-oriented email and bulletin board messaging (including attachments) and chats. Furthermore it is planned to investigate, how far video-supported communication can improve the cooperative learning situation.

The course material is designed especially with the focus on cooperative learning situations, i.g., in small groups of approx. 5 participants, because this format easily kindles discussions. Especially the embedded student tasks can best be solved cooperatively.

Evaluation

The evaluation will investigate acquired knowledge and satisfaction of our participants, the comparison of distance education courses with regular university courses for teacher students, and the comparison of the two learning platforms.

First impressions from the test versions of the courses which we ran during the last two semesters will be presented.