

Building a competence-based electronic learning environment

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Introduction

At the Open University of the Netherlands is a major project going on, which has set his goals on building an electronic learning environment called ELON-systems. ELON means Education and Learning Online. One of the major assumptions of the project is not only making an electronic learning environment, but also an educational renewal in which the surplus of ICT comes a front.

The educational renewal is founded at the principals of competence-based education. When the principals of competence-based education are adopted, it leads to flexible, personalised education, and reduces the gap between the needs of the labour market and the output of education. One of the activities during the project was a further elaboration of the principals of competence-based education and its instructional design. This paper describes the outline of the principals of competence-based education and its components, which are defined in the ELON-project.

Competence-based education and its principals

Competence-based education is defined as education, which has its focus on acquiring certain competences, assuming that a student has certain start-competences. A competence is the ability to use knowledge and skills in a certain domain, which means the ability to design, develop, and apply appropriate solutions for problems inside en between certain profession-domains and problem-context. In other words, the essence of competence-based education is situated in the manner of describing the objectives and entrance-levels of education. The objectives are defined in terms of measurable competences, which are deduced from job-qualifications and job-profiles.

Competence-based education and its instructional design

Competence-based education needs its own instructional design, which has its focus on acquiring competences. This instructional design is defined as competence-based learning. Characteristic for this type of learning is: To determine if a student has reached the objectives of a unit of study can never be measured by a knowledge test. Students should perform activities, which demonstrate the acquired competence. The tutoring (guidance) of students is founded at the principals of scaffolding.

The instructional design of competence-based education does not imply the learning activities, which the student has to do, to reach the objectives of a unit of study. In the ELON-project the prescription for the learning activities, which should be done by students to reach the defined objectives, is called a study task. A study task is the

elaboration of a unit of study, which means the study path, which the student has to follow to reach the defined objective level.

Components of competence-based education

In the paragraphs above the principals of competence-based education and its instructional design were described. When building an electronic learning environment, which is based on the principals of competence-based education, one has to define with which components the students interact. In the ELON-project the following components are defined:

- Competences;
- Competence-maps;
- Unit of study;
- Study task;
- Assignments;
- Learning materials;
- Tests.

At the conference we will present the structure of the components en describe how a student studies in ELON-systems.