

# FINNISH QUALITY MANAGEMENT IN WEB-BASED LEARNING

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## Introduction

Quality Management in Web-based Learning –project (VOPLA) is a joint venture between three Finnish universities, University of Helsinki, University of Kuopio and Lappeenranta University of Technology, to create national quality criteria and standards to web-based learning. The aim of the project is to support and enhance quality management in web-based learning, and to develop quality consciousness and expertise among the university personnel and their commitment to the quality management work. The project started in 2004 and will continue until 2006. A preliminary study has been carried out in 2004 to establish the current quality management situation in e-learning in Finland. During 2005 the project aims to develop e-learning quality criteria and standards in national workshops. The project team will build up an online service and quality criteria tools into the Finnish Virtual University (FVU) portal. The developed criteria and standards will be tested during 2006 in pilot projects in the universities<sup>1</sup>.

The need for quality management in web-based learning has risen in European<sup>2</sup> and national educational policy discussions as well as in quality surveys and questionnaires targeted at university students and teachers. Web-based learning has established itself as part of the everyday operations in the universities. However, expanding the use of e-learning has put pressure in changing the organisation, processes and services in higher education. In this situation, more emphasis has to be put on the quality of operations and contents of teaching and learning, online learning materials and pedagogical and technical support services for web-based learning.

At present, some quality management work has already been started in Finnish higher education. However, it is yet to be systematised. Quality systems are built on already existing quality models or on self-developed quality principles. Those quality models that are in use in the universities are based on, for example, ISO 9001:2000 standard, EFQM model or EQUIS model. Balanced Score Card criteria have also been used as a basis for quality control. Until now, higher education has used corporate quality criteria in their quality assurance work. However, according to Parker<sup>3</sup>, we have to take a step back to evaluate these criteria and determine whether they fit into the academic field. Thus, corporate quality criteria must be adjusted and modified to suit the purpose in higher education. And the work must be done by the academics, not corporate consultants.

## Problems relating to terminology

One of the problems in web-based learning and quality management work is that the terminology is still quite unclear. People are using the terminology ambiguously, without defining the terms. Thus, terminology has to be clarified before the quality process can continue. Here **quality management** is seen as creating quality systems, **quality assurance** is applied to processes and criteria. **Quality management procedures** are the practical steps in enhancing the quality systems inside university operations.

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<sup>1</sup> [www.helsinki.fi/vopla](http://www.helsinki.fi/vopla)

<sup>2</sup> Dumont 2004

<sup>3</sup> Parker 2004:393

In view of the international quality management work, some e-learning criteria have been developed in open and distance learning (ODL)<sup>4</sup>. Often quoted learning quality criteria are, for example the factors relating to the educational organisation, curricula, learning and teaching, infrastructure and student service, and evaluation methods. Quality criteria are always developed for a certain country or institution. This is also visible in the criteria and terminology. The emphasis on quality management and criteria is shifting from teaching and planning the courses onto learning results and more student oriented quality management. Therefore, students must be remembered in building quality management systems. There has to be a “shift from a ”provider focus” to a “learner focus”<sup>5</sup> to accommodate students, universities’ clients. This change of perspective has to be accounted for when creating quality criteria for web-based learning

## **The challenges of quality management in web-based learning**

Over the recent years, the main goal in university personnel training in Finland has been to develop best practises and wider knowledge of online teaching, online learning material production, and pedagogical and technical support services as well as developing university personnel’s knowledge in e-learning in general. Now that web-based learning has been more or less established as part of universities’ basic function, the emphasis is shifting more on quality. In Finnish higher education the following questions have been considered:

- How quality is defined in universities’ main functions?
- How quality can be assessed?
- How quality is integrated in the existing operational procedures in the university?
- What kind of quality management system there should be in higher education?

In Finland, quality management work has developed rapidly in recent years. Finnish educational authorities have taken an active role in guiding the quality work. Higher education sector is urged to consider quality as a wide phenomenon, covering all the functions in the universities. Teaching and research, administration, management and infrastructure must all be included in the quality process.

The quality criteria of international quality organisations, such as Quality Assurance Agency, Canadian Recommended e-Learning Guidelines, and Qualifications Framework in Australia, have developed various quality criteria that can help in defining more specific criteria and scope for web-based learning and teaching, online learning materials and pedagogical and technical support services. Student evaluation is an important part of assessment for quality in university education. However, it should not be the only assessment tool for development. Universities and local authorities must work together in creating self-assessment, auditing and national qualifications schemes to establish quality in web-based learning.

In Finland, Quality Management in Web-based Learning –project (VOPLA) takes up this challenge by

- building internationally comparable quality management models and criteria for e-learning
- strengthening e-learning quality network and expert co-operation in Finnish Virtual University (FVU)
- planning and developing high-quality e-learning service in Finnish Virtual University Internet portal
- connecting quality management of e-learning to the overall development of teaching quality, university quality management work and resources allocation negotiations inside universities and between the universities and the Ministry of Education.

## **Quality criteria for web-based learning**

The same principles apply to web-based learning as in the quality of teaching and learning in general. However, there are some special characteristics in e-learning that need to be specified. In its first report, the Quality Management in Web-based Learning project team (VOPLA) has emphasised quality management

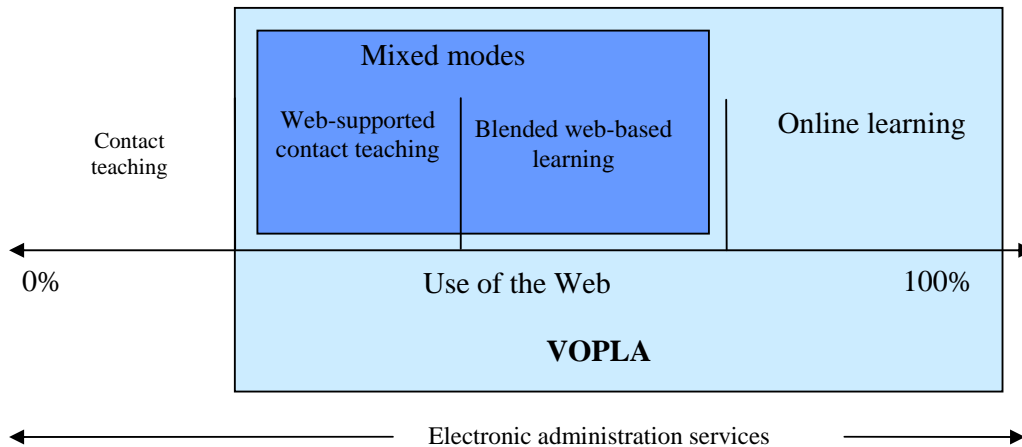
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<sup>4</sup> Sangra, Albert. 2004

<sup>5</sup> Parker 2004:390

and assurance in three areas of we-based education, namely 1) teaching and learning, 2) online learning materials and 3) pedagogical and technical support for e-learning including equipment, facilities and training.

As well as defining the terminology in quality management work, it is essential to define the terminology of web-based learning. The project team in its report<sup>6</sup> (VOPLA) has defined e-learning in the following way:



Anthony Bates's<sup>7</sup> and Tiina Ojala's<sup>8</sup> researches have been the basis for the definitions in the picture above. Web-supported contact teaching refers to teaching where part of the course – course planning, course management, implementation, studying or evaluation – is transferred into a web-based environment. Most of the teaching, nevertheless, is administered face-to-face. Blended web-based learning means teaching and learning where contact classes and online sessions alternate, for example, a course starts with contact session then there is a 3-week online period and then there is one contact session again. Online learning, here, means education which is given totally online. Electronic administration services cover course information and registration of students and course results, i.e. administration that has been put online.

### *Quality of learning and teaching*

Quality of learning and teaching is a complex phenomenon. Therefore, it is difficult to define it unambiguously. Key factors in quality of teaching and learning are:

- how do we define quality
- from whose point of view quality is examined,
- in which stage of teaching quality is developed
- in which context quality is measured.

We can look at quality as exceptionality, flawlessness, appropriateness, cost effectiveness or change. The possible stakeholders in quality measurement are students, teachers, university administration and online teaching facilities (part of the infrastructure). When defining quality criteria for teaching and learning, different phases in teaching, i.e. prerequisites of teaching,

<sup>6</sup> Sariola 2004 (ed.)

<sup>7</sup> Bates 2000,28.

<sup>8</sup> Ojala 2004

planning, implementation and evaluation, must be taken into consideration. Also the different roles of the teacher and the student must be remembered. The roles of the teacher and the student change in an online environment, thus, demanding new skills both from the teacher and the student. Teacher's role online is one of facilitator and tutor, guiding the student on the path of discovery and learning. The student is in a role of independent explorer, who receives help from his/her tutor and peers. The student has to take more responsibility for learning, thus demanding more from the teacher who has to give implicit and clear instructions, develop logical and balanced e-tivities<sup>9</sup> i.e. online activities.

### *Quality of online learning materials*

Before defining the quality criteria of online learning materials, we must define the terminology in the field. In the first report of the VOPLA project team online learning materials are understood to cover various digital learning materials, which have a close connection to goals of the learning tasks and can be utilised in web-based learning. It has its own content demands, and set goals for learning, and is available online. For example, material, which is online but does not include a learning task, is not considered an online learning material, it is only a resource material. There is no one set of criteria for online learning materials, but a combination of different models must be used, for example learning object model, usability model, process model, content model and meaningfulness of learning model. Different stakeholders vary the point of view taken on quality criteria. For example, from the point of view of a teacher and a student achieving the goals set for learning and effectiveness of teaching are central. From the point of view of producer, i.e. teacher or online content developer, production process modelling is important, and standardisation of learning materials is vital from the standpoint of the publisher, in this context it means the university or FVU portal. (<http://www.virtuaaliyliopisto.fi/>)

### *Quality of pedagogical and technical support services*

Pedagogical and technical support services are important in the quality of web-based learning because online teaching and learning require new skills both from the teacher and the student. Quality management of this type of infrastructure in web-based learning has just begun in Finnish universities, and is seen as a natural part of the quality management of other teaching and learning support services.

Support is given in the form of training on using online facilities, tools, equipment and software as well as supporting the teachers in creating web-based courses in a pedagogically sound way. All Finnish universities offer this kind of infrastructure and support in e-learning. Support is provided by centralised or divided model, i.e. there is a special unit or department giving and organising the support, or support is found in various departments, but it is not centralised. How the service is organised depends on each university in Finland.

Process descriptions of pedagogical and technical support services or quality criteria have been defined so far only in few universities, but the need for a process description and criteria is great. However, there already exist various support materials and instructions, which can be utilised in quality management work. Universities can use existing models, for example EFQM with which an organisation can measure its current situation, follow progress, find development areas and improve its operations. The model should be open, flexible and adaptable to different organisations and their functions.

## **Recommendations for further development of quality management work in Finnish higher education**

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<sup>9</sup> Salmon 2002

The main challenge in the future will be how best practices and acquired knowledge in quality management work can be infiltrated in the universities' main functions, and how to commit all stakeholders to the quality management work. Quality Management in Web-based Learning –project (VOPLA) suggests the following procedures in future quality management work in higher education in Finland.

- 1. The quality of web-based learning has to be placed in the perspective of overall teaching and learning*

The quality management of web-based learning has to be connected to the overall university quality management, and as part of the quality management of teaching and infrastructure. Quality management of e-learning can serve as a catalyst of the overall quality management as well as an innovator of new quality methods. Furthermore, an important challenge in the next phase is the evaluation aspect of the goals of learning and acquired skills, and the effectiveness of teaching.
- 2. The development of quality thinking is crucial in the quality management of web-based learning*

Quality thinking is a conscious choice in quality management and the justification of the viewpoints taken in the quality management work in e-learning. Quality management has to be systematised. This means defining e-learning processes and criteria, and putting them into active use in the universities.
- 3. Client and process perspective has to be taken in quality management work*

The basic element of quality management is taking the viewpoint of the client and the processes. We have to examine operational quality and processes from the point of view of, e.g. a student, a teacher, a researcher and a manager.
- 4. The quality assurance of web-based learning has to be part of the strategic steering and management system*

Quality management and assurance must be connected to operational steering and management system and integrated to universities' basic functions. Finnish universities have just recently started building up these processes and in most universities the process is yet to be finished. Thus, it is important to finalize the quality management work and start implementing the systems in the universities.
- 5. A national quality network must be founded to support development and exchange of experiences*

In order to fully utilize the best practises and experiences of quality management in national higher education, all the stakeholders, i.e. the national universities, the Ministry of Education, Finnish Higher Education Evaluation Council, and Finnish Virtual University, must create a common discussion forum and a working network on quality management in e-learning<sup>10</sup>.

The work of the Quality Management in Web-based Learning project team (VOPLA) is twofold. Firstly, it supports the universities' internal quality management work by providing information on quality issues, developing quality criteria and processes in various national workshops. Thus, answering to the first and third recommendations of linking e-learning quality in teaching and learning as whole and taking the perspective of client and processes in universities and its stakeholders. Secondly, the project team promotes the national quality efforts by co-operating with the Ministry of Education, Finnish Virtual University (FVU) and Finnish Higher Education Evaluation Council (FinnHEEC) to implement quality thinking in universities' basic operations, and to ensure that e-learning aspect is recognised in the overall quality management work. Furthermore, a network for quality issues is founded to promote and support quality management in universities. This task relates to the other points in the recommendations for further action.

To achieve the tasks listed above, it is important to clarify the main roles in the quality process. The different forms of co-operation have to be described as goals and procedures and resources must be allocated. The main task of the quality network is to produce common knowledge about the quality issues and

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<sup>10</sup> VOPLA report 2004

recommendations for quality management in e-learning. University stakeholders are supported in the future by co-operation of the national working groups and by a web-based service for quality assurance. The service provides not only the quality criteria but also tools for describing and using quality systems and processes.

Quality Management in Web-based Learning –project (VOPLA) is starting the next phase in its project scheme by developing quality criteria, processes and models for e-learning from the viewpoint of learning and teaching, online learning materials and pedagogical and technical support services. If we look at quality as continuous improvement, we need to open up the processes and criteria to develop a practical quality management process. The VOPLA project team is responsible for organising various workshops and seminars on quality management issues in e-learning in Finland during 2005 to raise quality awareness in university stakeholders. The aim is to engage university personnel interested in e-learning to work together compiling quality criteria, processes and models for different universities to use in their internal quality management process. These workshops and seminars will also help form national quality networks, which will enhance quality thinking in various universities.

In the third phase of the project, dissemination and implementation of quality criteria and processes will be done through pilot projects during 2006. They are to test the developed quality criteria and service and report on results of using quality assurance criteria in their web-based learning projects. This information will be used to further develop and refine the criteria and the quality service portal.

It is important that the quality management tools and service is regarded practical and that it is easy to take it into everyday use in the universities. The goal is to help universities and its stakeholders improve their performance and continuously review their teaching, online learning materials and pedagogical and technical support services, as well as strengthening quality consciousness in all functions inside the universities. It is also good to open up the processes and evaluate universities' effectiveness and performance nationally and internationally.

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Website of the project team [www.vopla.fi](http://www.vopla.fi)