

# E-Learning Quality in Europe: Towards Individual Quality and Diversity

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## Abstract

*The quality of ELearning is not a well defined measure. Various proprietary national, regional, local approaches, limited to a certain domain/user group/context, are being used. There is no general framework for quality management, quality assurance, or quality assessment in the field of ELearning. Therefore, even certified products and services cannot be compared. In order to provide a framework for a common European and global market for educational products and services, a comparable, adaptable quality framework has to be defined by the relevant actors – these actors will be participants of the proposed community – the repository will be the information and knowledge base to provide reference information for users and researchers, leading to the development of a common quality framework. Additionally, we provide recommendation and support functions to facilitate the implementation of quality approaches in organizations and enterprises..*

## Introduction

Quality in the field of E-Learning is becoming an issue of increasing importance in both researchers' and practitioners' communities. Quality approaches have different perspectives and interpretations of quality, differing in the methodology and implementation. A variety of promising concepts, methods, and certifications has been developed in the last years - the need for harmonization and adaptation for certain users and specific purposes is obvious. In this paper, we describe the approach of the European Quality Observatory (EQO<sup>1</sup>) as a methodology and tool for information, harmonization, and consensus building.

The main objectives are:

- Building an international repository and its conceptual framework for the quality management, quality assurance, and quality assessment to provide recent information, search, and adaptation mechanisms.
- Providing state-of-the-art information for the users: the observatory will be the interface between researchers, organizations, and users (such as learners, teachers, decision makers).
- Promotion and development of standards: the project will be directly linked to standardization groups of CEN/ISSS and ISO/IEC JTC1 SC36 in order to directly transfer results from standards committees to the users and vice versa.
- Creating a community for users, developers, researchers, and organizations to improve the exchange of expertise, knowledge, and experiences in the field of E-Learning quality.

EQO contains a knowledge base which is the base for harmonizing the isolated approaches leading to a reference framework for E-Learning quality. First of all, we demonstrate organizational and methodological requirements for the harmonization process. The harmonization process depends on the active involvement of relevant actors (organizations, researchers, users, institutions) in the community of EQO. In this community, the reference model will be further developed in order to facilitate a consensus-based harmonization process. Secondly, the observatory will contain tools to support the implementation of quality approaches. These tools will specifically support the adaptation of generic approaches to a certain context. We show how the observatory will improve the quality of E-Learning environments and educational processes.

<sup>1</sup> EQO Web-Site: <http://www.eqo.info>

## Quality Approaches for E-Learning

A Quality in the field of E-Learning is not a well defined measure. The meaning of quality differs in scope, perspective, or dimension. Therefore, the harmonization of quality management, quality assurance, and quality management approaches is a complex task. First of all, we demonstrate the variety of quality management, quality assurance, and quality assessment approaches. A careful analyses of existing approaches was done in the CEN/ISSS Workshop Learning Technologies [3]. A project group has been working on analyzing Quality Management and Quality Assurance approaches in order to start a harmonization process on the European level. In this part, we only demonstrate the variety of approaches.

Different quality approaches cover different phases of the development process of learning resources or learning systems. An example for a generic approach which can be adapted and applied to educational organizations is the *European Foundation for Quality Management (EFQM) Excellence Model* (see [4]). Other broad approaches for educational organizations are the Quality Mark of the British Association for Open Learning [2] or the approaches of the Higher Education Funding Council for England [7]. These approaches are generic but specifically adapted for educational processes.

Other approaches are specifically designed for Quality Assurance in the field of education – one example is the Essen-Learning-Model which is a procedural model for planning, design, implementation, and evaluation of learning scenarios and educational programs (see [8][9]).

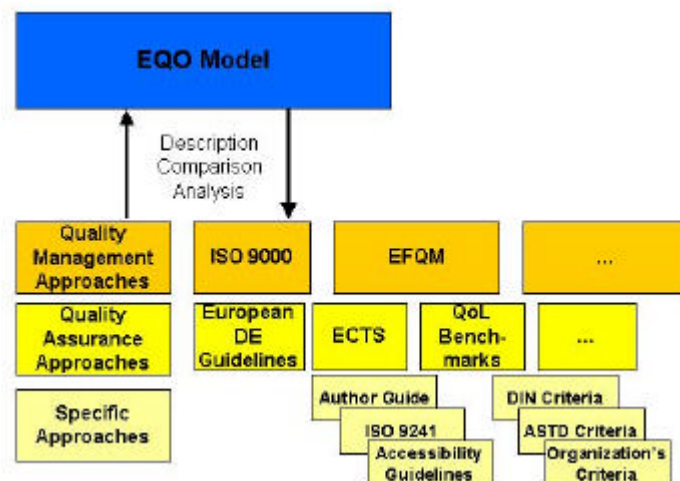
Another class of approaches covers only specific parts of educational process or domain specific aspects (e.g., design processes, quality assurance in schools, see [6]). Furthermore, most organizations have developed their own criteria catalogs or evaluation models (e.g. ASTD criteria, see [1]).

Unfortunately, these approaches are only used nationally, regionally, or locally. Secondly, the effort to adapt these approaches to a specific organization is immense. Expensive consulting and training services are necessary. In particular, efficient support functions to implement quality approaches in small or medium enterprises are necessary to stay competitive on the market.

We show, how a European or global Quality Standard based on consensus processes in a community can lead to a harmonized model. Secondly, we show how support functions can be implemented to support organizations, enterprises, and individuals.

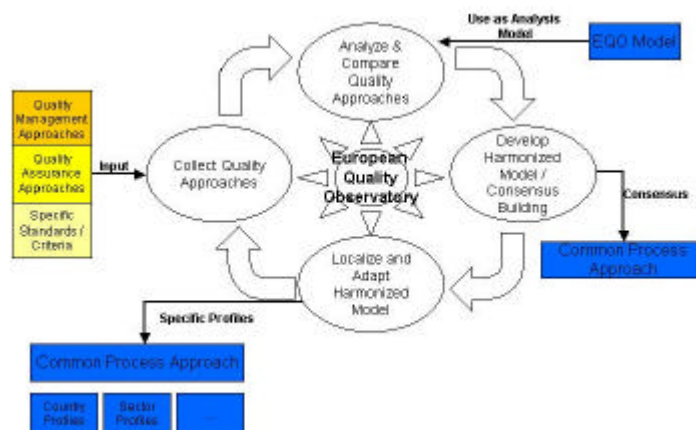
## Harmonization of Quality Approaches

In order to harmonize the variety of quality approaches, in a first step different approaches need to be structured, analyzed, and compared. Figure 1 shows the main classification aspects: In the repository, this classification is also used as the basis for searching, browsing, and adapting the quality approaches.



**Figure 1: Methodological Classification of Quality Approaches**

This classification is just used for a general overview of approaches. In order to compare approaches the classification needs to be more detailed. Therefore, a conceptual model (“EQO Model”) has been developed. This *conceptual model* can be used to describe, compare, and analyze quality approaches. It is used for the analysis phase of the harmonization process. After this analysis, quality approaches will be merged in an open approach. This means that a general quality model will be developed. This general model can be adapted leading to branch- or country-specific needs and requirements – especially in a European context, the diversity of educational systems and corresponding quality requirements must be considered. Individual profiles for countries, branches, or organizations must be developed as a next step. By developing an open, adaptable standard, the acceptance within a diverse cultural environment will be increased significantly. Figure 2 shows the harmonization process and the results of the harmonization.



**Figure 2: Harmonization Process**

## European Quality Observatory

The European Quality Observatory will become an information, knowledge, and support source for educational institutions, organizations, and users. In the following, EQO’s contribution to the European and global harmonization process is shown:

### 1. Providing an internet-based repository for quality management, quality assurance, and quality assessment approaches

The repository will be an information and dissemination source for researchers, organizations, and users in the field of E-Learning. Different levels of abstraction will be covered: Quality Management, Quality Assurance, and Quality Assessment.

### 2. Structuring and comparing quality approaches for the field of E-Learning.

The variety of quality initiatives (e.g., ISO 900x:2000, EFQM) and quality approaches (e.g., different abstraction levels, national/regional/local approaches, domain specific approaches, process-orientation/product-orientation/competency-orientation) leads to an increasing confusion in the community. There is no accepted quality-mark for organizations or products on a European or global level. Therefore, the current approaches must be compared, classified, and transparently structured in order to provide a survey of actual approaches. By providing structured, context-related information the harmonization and discussion process will be started on a European and global.

### 3. Mutual Transfer between standards organizations (CEN/ISSS, ISO/IEC) and users.

Currently, workgroups in different standardization organizations work on the issue of E-Learning quality. The transfer of results of these workgroups (e.g., CEN Workshop Agreement) to the actual user must be facilitated to provide transparent, usable models. The Observatory will provide a community for the fast exchange of expertise between standards organizations and users. New results will be provided by standardization organizations and feedback will be provided by the users. By this exchange, the gap between abstract concepts and transparent implementation will be reduced, leading to increased awareness of standards.

#### **4. Building a community of practice in order to reach a common understanding of and increase expertise on the concept of “E-Learning Quality”.**

Currently, various initiatives, projects, and experts deal with the issue of quality for E-Learning separately. There is no central platform for the exchange of information and expertise. By building an interactive community of practice, users and experts from different contexts can start the exchange of information, experiences, and expertise. This will support the consensus process.

#### **5. Specification of a harmonized reference model for process-oriented quality assurance for E-Learning.**

The reference model of the CEN/ISSS Workshop Learning Technologies for a European Quality Framework is the base for a harmonized European quality mark. This approach will be continuously discussed by users and experts within the community. By the direct exchange between CEN and EQO this model be further developed and lead to an accepted model for quality from different perspectives.

## Conclusion

In this paper, we have shown how the European Quality Observatory can support the complex harmonization process of quality approaches in the field of E-Learning. The harmonization is a step towards a consensus-oriented Quality standard for the field of E-Learning. The harmonization process is based on a community approach involving all kind of users and organizations. Additionally, several support functions allow the individual implementation for organizations. The results can serve as a base for further standardization work within CEN on a European level and ISO/IEC JTC1 SC36 on the international level.

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## About the author



Dr. Jan M. Pawlowski coordinates the workgroup on ELearning within the Department of Information Systems for Production and Operations Management at the University of Duisburg-Essen, Germany. This includes the research coordination of several German and European projects (e.g., Essen Learning Model, Virtual Education in Business Information Systems, European Quality Observatory). He is the editor of the “International Handbook on Information Systems for Education and Training“ and has published numerous articles in books, journals, and conference proceedings. His main research interests and activities are in the field of E-Learning, Modelling Learning-related Processes, Procedural Models, Learning Technology Standardisation, Quality Management and Quality Assurance for Education, and Mobile Learning. He is actively involved in research organizations (AACE, IEEE; GI, etc) and coordinates quality workgroups within standardization organizations (German Standards Body, ISO/IEC JTC1 SC36)

### **Recent Publications related to the presentation**

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