



THE CHALLENGE OF THE TOTAL QUALITY MANAGEMENT APPROACH FOR THE DEVELOPMENT OF ONLINE AND DISTANCE EDUCATION

Christian-Andreas Schumann, Claudia Tittmann, Jana Weber, Helge Gerischer, West Saxon University of Zwickau, Germany, William Scheller, Kettering University Flint, United States of America, Feng Xiao, Tongji University Shanghai, China

Abstract

The organisations themselves have to “produce” quality systemically and not just the individual units, which are responsible for the study programs or contents. Therefore, a holistic approach of management in general and quality management in particular is required to cope with the challenges of online and distance education in the future. The integration of TQM and online and distance education management is based on the complex management approach for educational institutions. But, there are still a couple of dilemmas and issues. Therefore the universities have to develop general professional concepts and to transfer the standard procedures into special TQM processes for online and distance education. This development will be provided by discussing individual solutions and issues based on approved cases and best practices in the educational institutions.

Introduction

It's not about to philosophise, whether and how we will live in the future in a digital environment, but it's about recognising that we live in a digital world of knowledge. Now, it must be adapted to our advantage. The development of science, technology, and dependent ways of life has changed so dramatically fast and agile that the advance thinking and forward planning for individual elements of the entirety are becoming more difficult and more diffuse. The consequence is that it depends more and more on the definition of the right framework conditions and targets for complex systems and on the settings of self-regulating and self-evolving subsystems forming an optimal solution with high quality independently. Online, mobile, and computer-based distance education is a part of the subsystems of the digital knowledge society, digital worlds of knowledge and digital knowledge processes. Conditions and rules are set up for them that provide not only the optimization of individual components, but rather are directed to an absolute understanding of quality and thus securing the quality of the whole system. Total Quality Management (TQM) is geared to this permanent quality improvement. Its application to the knowledge and learning management

with subsets of online and distance education helps to avoid particular and insular part optimisations in response to existing developments, but rather to focus on the pre-planned optimisation of the entire system. Each educational institution and each educational network should rise to this challenge.

Complex Management for online and distance education

The control of complex systems requires professional management. Management is the control and organization of something (Cambridge Dictionary Online: management). Thus, it is primarily an aspect of the management and control of processes in organisations. If management will be understood as a function, so it includes all the activities that are to be performed by managers in all areas of the organisation in fulfilling their management responsibilities. These include (Gabler Wirtschaftslexikon: management):

- The planning including problem and task definition, target setting, alternative planning and decision;
- The realisation concerning organisation, information, communication, motivation of employees and their coordination;
- The control with feedback as well as the nominal-actual comparison for the further planning and control.

Modern management approaches are focused to a multi-dimensional management model. For example, the kernel of the management practice is characterised by the dimensions of identity, synergy and development. The identity is influenced by the degree of the characteristic expression as well as according to their strength and sustainability. Synergy means true motivation of employees and their performed services. Development is based on the urge for growth as well as the willingness and the ability to redesign (Moll, 2009). The management in the field of online and distance education must take place in the context of the digital worlds of knowledge. These include the areas of knowledge generation (generation explicit from implicit knowledge), knowledge use (access to knowledge and new information services), the sharing of knowledge (design of online transfers and new synergy potentials), knowledge protection (organisation of entry paths and the data and information access), and knowledge preservation (avoidance of digital black-outs) (Kaiserswerth, 2010). The management can structurally be divided into management levels (strategic, administrative, operational) management tasks as well as methods and techniques. With regard to the variety and complexity of the tasks involved in performing organisations and processes in the field of online and distance education, numerous strategic administrative management tasks have to be considered and have to be treated integratively. (Figure 1)

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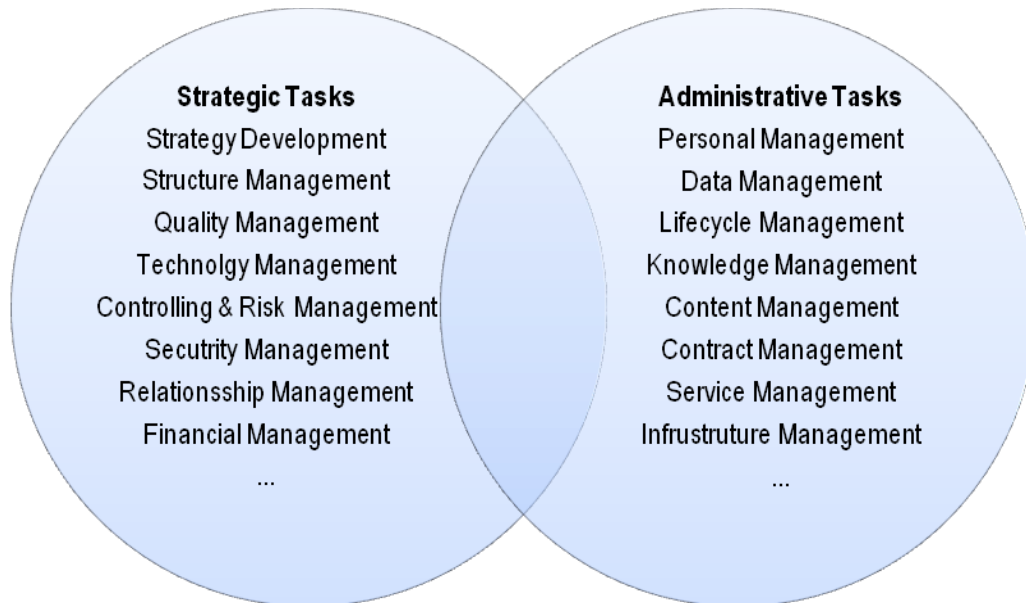


Figure 1. Complexity of Management Tasks for Online and Distance Education
(source: Heinrich & Stelzer, 2011)

All disciplines and sub-tasks of the management shall be concentrated on the satisfaction of the demands of the interested partners. It is a question of the quality of provided performance and services on the basis of an overall-optimised approach. The optimal design of individual areas, processes, objects, products, et cetera is not sufficient in this sense, in order to achieve the satisfaction of the demands at the highest level in competition. Accordingly, all tasks and activities of the management shall be oriented to a high quality. Only in this way, the area of online and distance education can be optimally developed.

Dilemmas of the recent development

The current development of online teaching and distance education is dominated by the influence of the digitally-networked knowledge society. A clear differentiation between traditional distance education and online degree is not given anyway, because all areas of social life are determined and influenced by electronic media. A rapidly growing complexity and a complicatedness of systems with ever-increasing demands on the expertise result alone from this constellation. The approach is superimposed by extended demands on additional competences that developers, managers, teachers, coaches, consultants and practitioners must have, not only in terms of teaching and learning processes to be prepared in the course of knowledge transfer, but rather for the activities providing an integrated, digital learning in a complex economic, social and societal context. Planners and decision-makers, who are responsible for the development of online and distance education, often find themselves in situations in which they find multicriteria statuses with different options for the final solution. The key player is often clearly in a dilemma about/over how to tackle the problem. A dilemma is a situation in which a difficult choice has to be made between different things a person could do (Cambridge Dictionaries Online: dilemma). Dilemmas in the current development of online and distance education are manifested, among other things, in the following points.

- The necessity to decide between technology-based forms of teaching and learning and the social demands of interpersonal relationships in the process of knowledge transfer;
- The requirements for strong expertise both in the field of education as well as in the domain of each field of special knowledge in accordance with professional capability and skills in management;
- The specifics and dialectics of regional, national and international learning and management cultures in the context of considerable differences of the regional, national and international forms of communication and patterns of behaviour;
- The mastering of the core processes of online and distance learning by sufficient core competencies within the organisation on condition of capacitive, human, financial, etc. constraints of the resources;
- The outsourcing of development and service processes in the framework of the international collaboration and knowledge transfer processes at the risk of generating dependency and loss of autonomy;
- The requirement of full satisfaction of the demands for a variety of education and diverse customer wishes in accordance with the quality objectives and the need for economical use of resources;
- The development of unique characteristics by specialization in relation to a broad, market-oriented range of study programs;
- The use of open online courses and content in a very individual, relatively uncommented way versus the development of joint, accompanied learning scenarios in learning groups in a social context with group dynamic development and motivation, etc.

The list could be continued. The mentioned examples attest that the planning and the control and thus the control of the complex systems of online and distance learning, which are more and more pronounced especially in the context of globalisation, cannot be realised by optimising and by quality-based design of the individual sub-processes or modules. The variety of decision situations is so high that the optimisation of individual elements and subsystems would take too much time and other resources to be able to manage the systems successfully in real time. Only a holistic approach of the development of online and distance learning, including a total quality understanding of the whole organisation or the entire network of cooperation, will put the actors in a position to lead and to control the permanent changes in online and distance education in the long term.

TQM approach for online and distance education

The development of online and distance learning in a high quality can only be achieved through a holistic approach, a holistic model and a holistic philosophy encompassing the whole organisation. If the principle of constant change is recognized, then it will always be necessary for the organisation to pass through the following steps (Kotter, 1996):

- Establishing a sense of urgency;
- Creating the guiding coalition;
- Developing a vision and strategy;
- Communication the change vision;
- Empowering broad-based action;
- Generating short-term wins;
- Consolidating gains and producing more change;
- Anchoring new approaches in the culture.

A similar holistic approach is pursued in Total Quality Management (TQM). TQM is focused on the continuous quality improvement. The improvement process will be purposefully and manageable designed. It has a high affinity to the processes of learning, because it is primarily based on the needs of the people. Quality management and learning management in general as well as the management of systems of online and distance education in particular are always related to human activities, have a special relationship to social aspects, and are characterised individually and subjectively. This means in particular (Kaminske & Umbreit, 2008):

- The achievement of a high degree of satisfaction of customers;
- The focus on the employee orientation;
- The integration of all stakeholders;
- The claim to leadership and the leadership task for the management;
- The permanent change, improvement, and optimisation of processes;
- The motivation for the continuous generation of quality.

Thus, TQM involves the management and the control of all processes for optimising the quality of products and services in all functional areas of an organisation by the activities of all employees. An objectification of the quality planning and assurance is aimed by the systematisation and professionalization of the management. Quality and management tools as well as quality and management techniques are used. Quality will be effective in educational programs, particularly in the online and distance education in different contexts of meaning and roles. Quality can be referred to: the compliance with certain standards, the achieving of an error-free status or of a degree of usefulness or as an expression of a reasonable cost-benefit ratio. The roles are designed by the involved stakeholders as the teachers, tutors, students, administrators, managers, etc. The quality management will be concerned with the structural requirements of the educational process (input) as well as the planning and implementation aspects (process) and the results of educational processes (output). TQM in education means specifically: development of a quality management concept, quality assurance, quality

development, evaluation, accreditation and certification. A quality management system can be implemented in five steps (Zimmerer et al., 2004):

- The development a general understanding of quality with the focus on the learners;
- The generation of a quality management concept;
- The definition of quality standards for online and distance education;
- The planning of a cyclical and iterative process of quality development;
- The creation of a plan of actions for the competence development.

The principle of application orientation should be preferred instead of the focus on technology, the principle of learning orientation should be provided instead of the supply orientation, the principle of competence development should be pushed instead of the pure content production. In spite of the now quite complex approach, the success will only be achieved if TQM is seen as a complex management task. The organisation must continually produce quality by the staff not only in the core processes of management of online and distance education but also in all related management disciplines and educational processes.

Concept and best practice examples (CASES)

The philosophy of TQM was took up among others by the European Foundation for Quality Management (EFQM) and used in accordance with the following principles for the concept development:

- All stakeholders are involved in the continuous improvement of quality;
- The quality is controlled by purposeful action of the stakeholder as a results-oriented procedure;
- The improvement of the quality will be realized by defined learning, creative and innovation processes.

Fundamental criteria were fixed in order to determine the quality of an organisation. (Figure 2)

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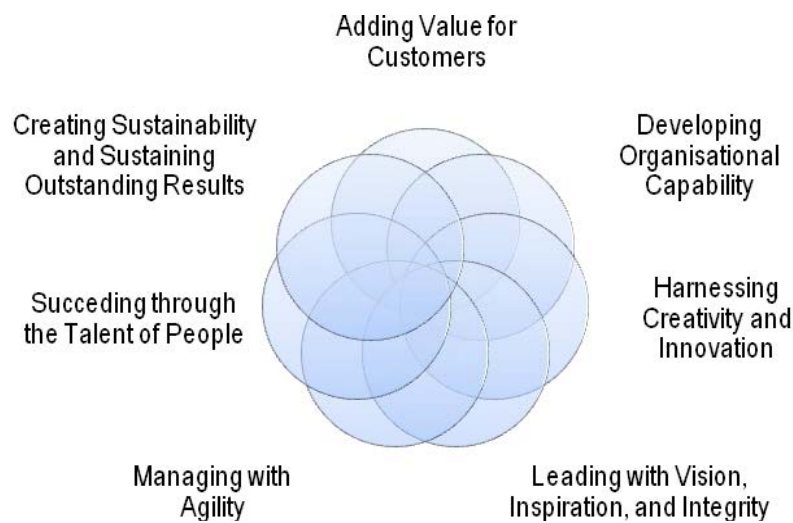


Figure 2: Criteria of excellence for an organisation [10]

If the general model of the development of a TQM concept for online and distance learning is used as a basis, the following guidelines for the preparation of a quality management concept can be derived (EFQM, 2012):

- The quality management is a useful and necessary procedure for quality assurance and development in online and distance education;
- The establishment of a quality management system should be based on minimum standards as well as existing and approved models;
- The development of a quality management system should take into account the characteristics of online and distance education;
- The customer orientation should be transferred to an orientation for stakeholders in the educational processes;
- It has to be take care of a balance of process-based quality management and content-related quality assurance;
- The knowledge-based structures and processes of administration and services should be addressed in the quality management concept;
- The systematic and regular evaluations should be part of the quality management concept and should take the characteristic features of the processes of online and distance education into account.

CASE 1

The comprehensive guidelines are supplemented in specific concepts by specific guidelines for evaluations, teaching, training, content development, platform use, etc. In addition, the TQM approach will only be successful if it is integrated into a general management plan of the organisation. Therefore, the concept of Balanced Scorecard (Kaplan & Norton, 1996), well-known from the strategic management, was applied to the planning of new services including

the online and distance education. Four perspectives are defined, each of which has a direct relation to TQM (Figure 3) (Schumann et al., 2012).



Figure 3: BSC applied for the development of study programs

CASE 2

The powerful concepts of the BSC and TQM, connected and adapted to the Online and Distance Education, form a bridge for the adequate access to other quality tools (histogram, error collection list, quality control chart, correlation diagram, Pareto chart, cause-and-effect diagram, brainstorming, etc.), management tools (relations diagram, portfolio, network plan, tree diagram, matrix diagram, affinity diagram, problem-decision-plan, etc.) and quality techniques (creativity technique, coaching technique, communications technique, information transparency, etc.). They are purposeful used in the planning of the study programs and the curricular development.

CASE 3

Perspectively, it will be possible to create new forms for connecting the management & quality development for the more quality-based design of online and distance learning. For example, in this sense, a fair educational value approach as a future demand quality in open and distance education should be created and applied for the specific conditions of international teaching and knowledge sharing collaborations (Rutsch et al., 2011).

CASE 4

The accreditation of study programs partially corresponds to a complex management approach and do not correlate with the sense of TQM. Therefore, educational institutions are able to perform a system accreditation, which is the holistic approach of TQM for all study and support processes according to the requirements of the European Association for Quality

Assurance in Higher Education (ENQA) (2009). The entire organisation generates and constantly improves quality for open and distance education. Now, the next logical step is to embed the TQM approach for open and distance education in the overall landscape of the professional management.

Conclusions

Quality management and quality assurance are an essential part of the planning and design of programs and offers in open and distance education. The TQM approach will be increasingly established in this context. It's not just about the quality of individual subsystems or processes but rather that organisations are able to generate permanent quality by the whole system. If this approach is consistently pursued, so the next step should be the integration of TQM into an overall system professional of managing and leading of the educational institutions in particular into potential complex application fields of open and distance education.

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