QUALITY DEVELOPMENT IN EDUCATION AND E-LEARNING

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Abstract: The article suggests that stakeholders involved in quality development need a specific competence, called quality literacy, in order to successfully improve learning processes. I describe quality literacy as a set of competencies that are needed for professional quality development. Quality literacy emphasises the importance of professionalism as a necessary component for quality development, in addition to structural quality management models. I argue that quality development is a co-production between learners and their learning environment. This means that the educational process can only be influenced and optimised through participation and not steered externally. Quality strategies cannot, therefore, guarantee a high quality of learning processes but rather aim at professionalisation of the educational process and stakeholders. This article suggests participation and negotiation between educational stakeholders (clients and providers) as a main condition for quality development.

Key-Words: Quality literacy, Participatory quality development, Educational quality, E-learning

1 Introduction

Quality in e-learning has become a leitmotiv in educational policies, an imperative for practitioners, and a huge demand for learners. Achieving high quality is a much debated and sought-after goal in all segments of education. It is, however, not so much characterized by its precise definition but rather by its positive connotation.

The search for quality in e-learning and education is often addressed in the way of finding a suitable approach for controlling or steering the pedagogical process. Yet, this view ignores the fact that the relation between cause and effect in the field of pedagogical practice is rather open and insecure [4],[5],[7]. It is one of the few secured results of educational research so far that pedagogical practice is much more characterized by insecurities and situational interpretations than through systematic cause-effect relations. In particular, psychologically oriented e-learning research tried for some time to determine the exact cause-effect relation between e-media attributes (screen colors, length of dynamic learning objects, etc.) and learners’ learning progress in order to derive consequences for the design of learning environments. However, such research designs proved to be too complex, and we can conclude that, not the media characteristics alone, but rather the underlying learning methodology and instructional arrangement facilitate learning success [6]. Today it is clear that knowledge, information, and learning media do not have an inherent learning quality but rather carry a quality potential, which has to be released in co-construction processes during the learning phase. In this article, I therefore argue for a new understanding of quality development in education and e-learning.

Quality development should not rely solely on structural models and strategies but take into consideration the professionalization of quality development — especially in light of its technological deficit. The main assumption of this article is that there are certain competencies for professional-quality development, and that these apply to both the learner/client side and the teacher/provider side. Quality development in education is viewed as the result of quality competence of the involved stakeholders. This competence is termed quality literacy. It is viewed as a critical factor for success of every quality-development activity in education. The concept builds on earlier work and develops a theoretical foundation based upon educational theories and terminology for the concept of quality literacy [3]. The scope, the validity of described concepts, and the reach of this concept have to be understood within this theoretical framework. Quality development is defined, from an educational point of view, as a co-production and a participative concept. Evidently, a theoretical contribution with this focus has restrictions in scope: Economic and/or technological models are not integrated into the argument.

Although e-learning is the general context in
which the concept of quality literacy has been developed, I do not distinguish between education and e-learning in this article. The term I used is "education." I believe that e-learning is an educational innovation and has a number of specific challenges to it. When introduced to educational scenarios, it often functions like a magnifying glass and reveals immediately deficits in pedagogical planning or teaching/learning organization. However, the concept is of a generic nature and addresses quality development issues from their very core — and thus does not make a distinction between "e"-learning as the field of quality development and "non-e"-learning. Although there are a number of specific challenges which differ between e-learning and non-e-learning, it is argued that the concept of quality literacy addresses issues that are the same in both fields. In this sense, the concept is a generic concept and is equally applicable to the field of e-learning vs. education as well as to the different educational sectors.

2. Quality in education

Quality development is a constant negotiation process in which all stakeholders should participate in a common effort to define and implement quality in a continuous, improved way. In order to empower the individual actor in the educational process — be it as teachers or learners — and to orient every educational interaction towards improvement, the actors have to be quality literate.

In this section, two characteristics of educational quality development are described: the multidimensional nature of quality in education, and the need for rethinking quality as a participatory process that must be facilitated as a co-production between educational stakeholders. Both aspects emphasizes that continuous improvement processes in education are of an unforeseeable and dynamic nature, which demands a certain ability of the involved actors to respond to these challenges. This ability is described as a competence rather than as a reproducible knowledge.

2.1. Quality as a multidimensional concept

Quality in education is a multidimensional concept. Therefore, different approaches to define quality are available. Berkel suggests a three-dimensional scheme, originally for service quality, which has been adapted to the field of educational processes in the following description. It locates quality within three:

- objective vs. subjective: This dimension addresses the question of who is defining quality criteria and values. If the quality value is defined only through the performance indicators of a product, Berkel terms it objective quality. The quality characteristics then have to be a part of the respective good, which is only partially true for the field of education. For education, the quality characteristics are usually defined through individual persons or committees in a subjective way. The definition of quality requirements through clients or learners is a subjective quality definition.
- inherent vs. instrumental: This dimension relates to the questions of where quality can be observed and when it becomes explicitly measurable. Inherent quality relates to the quality of a product that can be observed as lasting and innate. If quality reveals itself only through a service process, and thus the participation of clients, we refer to it as an instrumental quality. Often objects with inherent quality characteristics (e.g., Learning Management Systems, learning materials, etc.) are used in an instrumental way.
- endogenous vs. exogenous: If organizational processes and structures are taken into account when evaluating and/or assuring educational quality, we say they are of endogenous quality. If the educational institutions or organizations are not part of a quality evaluation, we say they are of exogenous quality. The quality evaluation of education requires an active process. Endogenous and exogenous can be used to distinguish between quality assessments that are either directed to the surface structure (exogenous) or to the deep process structure (endogenous) of an educational service.

The quality of education is therefore constituted only through mutual interaction of learners with their learning environment [1], and the evaluation of quality is influenced by organizational processes within which the educational process takes place (endogenous).
2.2. Participation and co-production as conditions for educational quality development

Classical service theory conceptualizes the interactive relationships between the actors of people-oriented services and the categories “production” and “consumption”. It is argued that education is a symbolically mediated, productive-active interaction as well as a production process. This process involves learners together with other actors (learners, teachers, etc.). It therefore has to be conceptualized in the form of a pro-sumption rather than a production-consumption relationship. The addressees of educational services are therefore conceptualized as active “co-producers” and not as passive receptors.

A parallel can be drawn here to newer approaches of change management in organizations. Doppler and Lauterburg [2] describe the importance of flat hierarchies in organizations and the importance of individual empowerment and competence development of the organizations’ actors for constant adaptation processes to a changing environment.

For the design of high-quality learning environments, this view bears some consequences: Learning environments — a term that is used here in the broad sense, referring to the sum of all processes that constitute the learning opportunity and including all resources and persons that are part of it — have to be designed in a way that makes it possible for learners to express their demands and preferences as part of the construction process. Only then can learners bring forth their experience, backgrounds, and demands, thus enabling providers to design learning environments in a way that allows active learning, problem solving, and competence development oriented towards the learners’ individual needs. The assurance of quality exclusively reached through predefined, static frameworks (e.g., standard evaluation questionnaires) often does not sufficiently address this particular necessity of co-production in educational settings. From this perspective, it is important that the development of quality strategies takes into account an active negotiation process as a specific condition of quality development and supports it proactively. Quality management concepts therefore have to include a negotiation component. This requires an extended understanding of process-oriented quality-development models, and asks for competence development and staff professionalization components within quality strategies.

From a socio-structural point of view we can moreover observe that clients’ identity structures change and standard biographies become more and more heterogeneous, and therefore lose their prognostic value for planning educational processes. Quality concepts that are still based on concepts of traditional biographies are losing their analytic powers over educational processes. If the described necessity of individualization of educational processes is taken seriously, then it is difficult to formulate fixed and prescriptive quality standards for progressively heterogeneous quality standards. They have to be compared to flexible negotiation frameworks that allow consideration of the learners’ situation and perspective in a co-productive process.

To use a participatory quality strategy means to support or hinder negotiation processes but not to substitute them through management processes any longer.

3. Quality literacy — competencies for quality development

The concept of quality literacy is based on the assumption that quality in education is the result of competent behavior of stakeholders involved in an attempt to develop quality. In this section I describe the theoretical background of the concept and the methodology that has been used to construct the concept of quality literacy. I define a set of skills that are necessary to perform quality development processes. The concept is embedded in the view that quality has to be defined in a participatory way.

3.1. Theoretical Background and approach of a new Concept

Quality literacy is a concept that is much related to the philosophy of total quality management. Within this approach, quality is seen as a continuous improvement process, involving all stakeholders in the process of a permanent assessment and quality improvement. One element is of key importance — the introduction and development of a quality culture into an organization. This has two dimensions (fig. 1). First, a managerial dimension that is of a rather technocratic nature and deals with implementing tools and instruments to measure, evaluate, enhance, and assure quality. This is usually facilitated though a top-down process. Second, a dimension of quality commitment focuses on an individual level. It relates to the individual commitment to strive for quality, using tools and instruments for quality development. First and foremost, however, it focuses on changing attitudes and values, and developing new skills and competencies in order to make a permanent
improvement of quality possible. Individual abilities, attitudes, and values add up to a collective level, which in turn leads to a quality competent organization. This dimension relates to a bottom-up process.

Quality Literacy in this sense is seen as a basic prerequisite to acting professionally in quality development contexts. On the first step, information about quality and quality development or related fields is interconnected and linked to knowledge. On the second step, they are applied and result in abilities. This is the step where individuals have practical experiences with applying or using quality strategies, tools, or instruments. These abilities are transformed in activities through motivation and will. Competence, however, demands an additional evaluation about whether the performed activity is suitable in a given context. For this, an individual usually needs standards against which he or she can assess whether something is suitable in a specific context. For quality development, these can be societal norms, legal rules, criteria that are agreed on in the specific organizational context, or set of standards for individual behavior.

In general, it has to be noted that quality literacy applies to all forms of knowledge, information, and learning of technology-related educational concepts, such as e-learning, blended learning, and presence courses. There are commonalities and differences between “traditional” educational scenarios and e-learning. Concerning quality development, however, we have to note that it is a process of negotiation with the goal of providing successful education in both educational fields. For e-learning, we additionally have to deal with the specific field of technology. Of course, additional areas of knowledge apply here. In principle, however, quality development requires the same competencies.

In conclusion, we can state that the concept of quality literacy builds upon existing concepts and aims to describe skills that enable individuals to perform quality development competently. Sometimes these situations are very complex. Sometimes, though, there is little complexity when only one specific quality instrument is applied to perform quality assurance (e.g., a questionnaire at the end of a program or course). Quality literacy, moreover, is a concept that cannot exclusively be learned by means of books or training, but requires experience and practice. It is a concept that is subject to constant change, as the means and forms of technology-enhanced education change as well.

3.2. The four dimensions of quality literacy

Quality literacy (fig. 2) can be seen as a set of four central competencies that contribute to carrying out successful quality development in education. They do not constitute distinct factors of quality literacy, but rather differentiate the inner structure of the concept of quality literacy. A more precise
A detailed description of the inner structure and coverage of the concept is presented and elaborates upon the four dimensions the concept contains.

**Dimension one: Quality knowledge**

This dimension addresses the “pure” knowledge about the possibilities of today’s quality development and up-to-date quality strategies in e-learning and education. The term “quality strategies” refers to all guidelines, structures, rules, tools, checklists, or other measures that have the goal of enhancing the quality of an e-learning scenario. There are two sub-dimensions to quality knowledge:

a) **informative**: The informational dimension refers to information and knowledge about quality systems, tools, and procedures. It is about having access to information resources, primary as well as secondary, and understanding the system of quality development.

b) **instrumental**: The instrumental dimension refers to the knowledge of how to use and apply a specific tool, such as an evaluation questionnaire, or how to use a list of criteria or guidelines for a specific context. The instrumental dimension does not, however, relate to the competence of implementing a quality system with a certain intention, such as reducing a course’s drop-out rate. That is covered through the dimension of quality experience.

**Dimension two: Quality experience**

This dimension describes the ability to use quality strategies with a certain intention. It is based on the experiences that actors have with quality development and with applying quality measures and strategies to educational scenarios. It can be differentiated from the instrumental knowledge dimension because it refers not only to the pure application of quality strategies or tools but also covers the processes of feedback analysis and initiating improvement. That means that, in addition to the instrumental knowledge of quality strategies, this dimension also carries with it an intention and a goal. Quality experience refers to the ability to use (existing) quality strategies (e.g., guidance and consulting concepts) to generate data about educational processes in order to improve them. It answers questions such as: How can I use quality strategies in a certain way to improve the educational process?

**Figure 2. Dimensions of quality literacy (QL)**

**Dimension three: Quality innovation**

This dimension relates to the ability that goes beyond the simple use of existing instruments and strategies. It refers to the modification, creation, and development of quality strategies and/or instruments for one’s own purpose. An innovative and creative aspect is important for this dimension. Within this dimension, “adaptation” and “creativity” mean further development and reorganization of existing quality strategies within a given context. “Innovation” means thinking up and developing new strategies for quality development.

a) **Adaptation**: This sub-dimension refers to the ability to adapt an existing quality strategy or tool to one’s own context. It goes beyond the pure usage of an existing tool, requires deeper understanding of it within the given methodological framework, and demands creativity.

b) **Creation/innovation**: The creation/innovation dimension describes the ability to think beyond existing strategies and go further than just modifying them. It also describes the ability to invent a complete new quality system. Such self-developed systems are often used for an organization’s internal purposes when existing approaches do not cover the specific goals and requirements. An example would be the development of a new evaluation questionnaire for the assessment of a course when existing tools fail to analyse the desired aspects. Also, it could be the development of a new method of consultation with learners before a course starts in order to assess their needs and goals.

**Dimension four: Quality analysis**

Quality Analysis relates to the ability to critically analyse the processes of quality development in light of one’s own experiences and to reflect upon one’s own situation and context. It enables actors to evaluate different objectives of quality development and negotiate between different perspectives of stakeholders. To critically analyze means to differentiate between and reflect upon existing knowledge and experiences in light of quality-development challenges. For learners, this means...
being aware of their responsibility for quality in education as a co-producer of learning success. For providers, this means enabling flexible negotiation processes in educational offerings and respecting individual objectives and preferences as well as societal contexts and organizational structures in their definition of quality objectives for education. Two sub-dimensions can be differentiated: analytic and reflexive.

a) Analytic Quality Analysis: The analytic dimension covers the process of analytically examining the meaning and the debate of quality in education in general. It is the ability to move within the framework of quality discourse, to contribute analysis, and to understand the different influences, starting from the market perspective and business models, taking into account technical aspects, and not forgetting the pedagogical aspects.

b) Reflexive Quality Analysis: The reflexive dimension is directed towards the analysis of one’s own situation. It is the ability to set quality goals for one’s own individual or organizational context, and to position oneself in the quality debate. The reflexive dimension emphasizes the ability to understand future challenges in educational quality development, rethinking one’s current quality situation, and developing a strategy to meet future challenges. A typical field of the reflexive quality analysis competence is the development of future goals, leitmotivs, and strategies either for oneself as the individual learner or for an organization.

4 Conclusions

Quality development in e-learning aims to improve educational processes. These are the result of a coproduction between learners and their learning environments, and in principle cannot be defined prescriptively. This means that in the end, the result of an educational process cannot directly be influenced and optimized like a production process. Quality strategies therefore cannot guarantee high-quality learning processes but should rather aim to professionalize the quality development process, both on the client’s side and on the provider’s side.

The quality model relates to theoretical work that has been done in the field of service quality and combines it with concepts of negotiation, participation, and co-production. However, a comprehensive empirical validation of the described concepts has so far not been undertaken.

In an educational setting, quality literacy is a prerequisite for quality development for both the client and the provider. The described competencies allow clients and providers to act in a competent way in the field of quality development and to enter into a process of stimulating a quality culture with the aim of continuous improvement. Enhancing competence is a move toward professionalization of the quality debate.

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References:


