



Quality in Training and Evaluation (QUTE)

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Abstract

QuTE (Quality in Training and evaluation) is a digital platform that can be used for monitoring and evaluating the quality assurance in the main dimensions of the educational process: planning, delivery, satisfaction and impact assessment.

The comprehension of the quality responds to the question of the transparency and control by the citizen, who is directly involved in the social choices and wants to participate in making political decisions.

The transparency concept is connected to the certification of the learning outcomes and educational procedures (UNESCO, 2011: 11-12). In the first case, within the European Community a common code for the instructional and educational systems has been shared (EQF), through which the mobility and lifelong learning, as well as the recognition and validation of the non-formal and informal learning, are guaranteed. In the second case, Common Quality Assurance Framework (CQAF) is an instrument of support, introduced by the EU, for developing and improving the quality, which starts from monitoring and evaluation of the ongoing systems and educational practices

QuTE does not look at the quality of competencies and performances of those delivering the service or at the certification of the competencies acquired, but the focus shifts to the quality of the educational processes, which represent the basis for the achievement of the attended learning outcomes. The software provides procedural indications, tools for analysis, monitoring and evaluation strategies for checking the different levels of competencies in an innovative perspective.

The objective of reaching quality responds, therefore, to the continuous need for qualification and updating of internal competences of an organization, as well as for identifying and reducing the functional weaknesses in order to be competitive at the market.

The main goal of the software is to standardize the educational procedures of action and of learning evaluation, emphasizing more effective strategies and methods and reducing methodological lacks.

The starting point of this paper is focused on quality parameters of an educational process. In particular, the paper will deepen the matter of the quality in the operative processes, starting from the international shared parameters.

To achieve this goal, we structure and put forward a model of the quality analysis. From the methodological point of view, the structure of the techniques and tools for data collection is in line with the indications of the CQAF. We re-contextualize the main indicators, we build the connected variables, we attribute them a semantic weight and we create a quality index, in order to verify the educational effectiveness.

1. Introduction

The quality is a complex concept that includes a set of processes of organizational, managerial, social and cultural change within the productive system and their objective is to improve the managerial and institutional effectiveness and efficiency of the functioning dynamics [2].

The quality question is not new in the public debate, as, already at the end of the '80s, there was a reform of the structural funds and all administrations had to activate systems for checking the quality of the productive processes in business companies (according to the European disposition of the *Total Quality Management*). The objective was to improve the productive and organizational dynamics and to increase the standards [3]. On that occasion, the procedural, physical and economical monitoring coincided with the process of control of respect of the EU common criteria and of performances in relation to which awards were given or distributed.

In the last years, poor economic situation has brought again to the fore of the international public debate the question of quality assurance, monitoring and evaluating as a mechanism of support not only for business companies, but also for public administration facing the social instability.

Generally the lack of economical sources and investments induces the great part of the systems to improve the internal productive dynamics, to supervise and to check the flows for reducing dispersions



and wastages, as well as to strengthen the focus on the market requests in order to respond with competitive services adequate to social and cultural expectations.

The objective of reaching quality responds, therefore, to the continuous need for qualification and updating of internal competences of an organization, as well as for identifying and reducing the functional weaknesses in order to be competitive at the market.

Within this framework, QuTE (Quality in Training and Evaluation), which is described in this paper, is a system of monitoring and evaluation of the quality assurance. In particular, the paper describes the theoretical concept and the methodological process which have resulted in the elaboration of an architecture of a digital model on the quality.

2. Towards a model of quality assurance

QuTE provides procedural indications, tools for analysis, monitoring and evaluation strategies for checking the different levels of competencies in an innovative perspective. The basic criteria consist of the measurability and standardization of the procedures and results [4] in relation to the shared principles. Explicit international references for the construction of the QuTE, according to their priority, have been the following: a) official EU documents on the issue of quality of teachers' trainings [5]; b) details from the international standards ISO EN UNI [6] for development and adoption of a system of quality of organisms for trainings starting from the development and evaluation of the professional competencies; organizational and methodological innovation (2008); c) European Foundation for Quality Management (EFQM) based on the Total Quality Management (TQM) [7], developed within the manufacturing industry and later extended to the outcomes [8], the Document by the Council of the EU from May 2004 and the European Quality Assurance Reference Framework for vocational education and Training –EQAVET or the *Common Quality Assurance Framework* –CQAF [9]. The model of quality proposed intends to guarantee the efficiency of the educational process and it focuses on the systemic dimension (macro-social perspective) and proposes an architecture of indicators for measuring the activities and processes that have been initiated in relation to the internationally and nationally shared criteria [10].

The structure includes 4 modules:

1. *PLANNING* – a module of planning and self-evaluation of the quality of educational planning.
2. *DELIVERY* – a module of self-evaluation of the quality of the service delivered: it refers to the actual plan and foresees the structuring of the course in order to guarantee the distribution and effective development of expected competencies by the attendees of the course. This phase corresponds with the Actual Plan (DO) or with the implementation of Rossi e Freeman (1989) [11];
3. *SATISFACTION* – self-evaluation module of the perceived quality by the involved actors through the instruments of *customer satisfaction*
4. *EVALUATION AND MONITORING* – module of self-evaluation of the monitoring of the evaluated quality (or the evaluation by Rossi e Freeman) which expands into the evaluation of the quality of results in terms of a certification of *learning outcomes* and meta-evaluation of the initiated monitoring process.

The model is based on the principles of transparency, efficiency and effectiveness from the perspective of self-evaluation as in the case of CAF, where the objectives were constructed taking into account the criteria foreseen by the *Common Assessment Framework*, present also in the EFQM and ISO and re-contextualized in the proposed model.

PLANNING refers also to the *management of processes and facts* or to the recognition of the *quality* through the methodological, structural and didactic valorisation of the best practices (process quality), in order to obtain a structure for verifying the educational completeness and structuring a unique model of process management.

DELIVERY AND SATISFACTION both have as their main objective the public responsibility and development of partnership and resources aimed at delivering trainings and perceiving their quality. The objective is to provide the formal and non-formal educational systems in the long run with a kit of tools for analysis and self-evaluation of the quality of the initiated process on the basis of the respect of the standard criteria of efficiency.



Finally, EVALUATION AND MONITORING is focused on three aspects:

1. The evaluation of the effectiveness through the analysis of the learning index (in itinere and ex post) of students (evaluation)
2. The evaluation of the consistency of the monitoring procedures, that are adopted during the delivery, respect to criteria of key-performance (*product quality*), to the coherence with the objectives and to the leadership and direction towards the results (meta-monitoring).
3. The evaluation of the effectiveness of the training course to the reduction of business risks (risk management)

3. Quality assurance outputs

This digital system for the quality management in the education is complex and multidimensional. It is developed for all public and private institutions that activate educational policies and have to monitor the quality of processes, paying particular attention to three main aspects: the excellence, the impact, the effectiveness/the efficiency.

The excellence is analyzed through the calculation of the quality index, actually achieved, respect to the expected value. This calculation is applied on three levels:

1. 1.Micro-level, focused on the calculation of the quality index for each dimension (set of indicators) [9];
2. Meso-level, focused on the calculation the quality index for each phase of the educational process (planning, delivery, satisfaction, evaluation);
3. 3.Macro-level, focused on the calculation of the general synthetic index of quality of the training course.

All quality indices provide data about the best practices in the educational process, i.e. management practices that respect rules of functioning, produce evidences to verify the efficiency of the educational process and, then, are nearest to achieve the excellence, respect to other ones that need improvements in the management.

The impact of the training course gives statistical data on the quantity of students of a course in different editions, on the dropout rate, on the number of training courses activated by the same institution, as well as on the number of training courses, that can be analyzed and compared through transversal categories of analysis, even if they are developed from different institutions. Some examples of these analytical categories are: the type of course (postgraduate, training, VET education, etc.), the topic of training, the geographical context, the kind of institution that develops the course (NOG, Public or private institutions), etc.

These statistical data, that could be also longitudinal, are included in a unique data matrix, useful to compare the effectiveness and the excellence monitoring according to diverse parameters of impact, previously introduced.

The effectiveness of the educational path, finally, can be calculated providing information on trends of the learning outcomes and the customer satisfaction results at more levels: for each student, for each class, for more classes that are in the same course, or for more courses of the same type (or different type) in the same periods, or not.

For each student, or class or training course, it is possible to do micro-analyses on the areas of excellence and weaknesses that have to be improved through specific corrective interventions. To achieve this goal, QuTE provides a comparison between the achieved quality level (for indicator, for training phase or for single course) respect to the average value achieved by other courses, put in the digital system.

QuTE is a digital tool to simplify the management, the monitoring and the evaluation of the educational courses activated by one or more institutions. The starting point is the sharing of the European parameters, in the perspective of the standardization of the tools and strategies of measurement. The final objectives are:

- The certification of the education quality, considering to the rigorousness and the completeness of the activated processes of functioning, through the data;
- The reduction of the costs for the production and the delivery of services thanks the optimization of the control procedures and the effectiveness assurance;
- The adequate answer to the needs of clients and the market.



References

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