



13th European Quality Assurance Forum

Broadening the scope of QA

Hosted by WU (Vienna University of Economics and Business) and
AQ Austria

15-17 November 2018

Call for contributions: paper submission form

Deadline 24 July 2018

Please note that all fields are obligatory. For a detailed description of the submission requirements and Frequently Asked Questions please consult the Call for Contributions.

ISSN: 1375-3797

Author(s)

Name: Merle Varendi

Position: Quality Manager

Organisation: TTK University of Applied Sciences

Country: Estonia

E-mail address: merle.varendi@tktk.ee

Short bio (150 words max): **Education:** Higher education in economics Tallinn University of Technology (1983); PhD studies in economics in the Tallinn University of Technology 1987 - 1992 (not finished); MSC (economics) Tallinn University of Technology (1993).

Work experience: lecturer of Labour economics and management at Tallinn University of Technology (1983 - 1997); Lecturer, head of chair, vice-rector for Academic Affairs, Audentes University (1997 - 2008); Quality manager, Information Technology College (2008 - 2017); Quality Manager TTK UAS (2017- ..) .

Member of Quality Assurance team Estonian Rectors' Conference of UAS (2008 - 2017). Member of Estonian e-learning quality assurance taskforce (2007- ...); co-author of manuals about assessing quality of e-learning courses and articles about Quality Assurance Process in e-Learning.

Name: Anne Villems

Position: Lecturer

Organisation: University of Tartu, Institute of Computer Science

Country: Estonia

E-mail address: anne.villems@ut.ee

Short bio (150 words max): MSc in Mathematics, University of Tartu (1970), MSc in informatics, University of Tartu (1996).

Assistant, then lecturer of informatics in Computer Science Department, University of Tartu.

Many years of activities in European Schools Project, International Gaming and Simulation Association, CEENet (Central and Eastern European academic Networks) educational team, Estonian FLL (First



LEGO League) volunteer project evaluator. Organizer of the very first 100% e-learning course in Estonia in 1995. Member of Estonian e-learning quality assurance taskforce (2007- ...); co-author of manuals about assessing quality of e-learning courses and articles about Quality Assurance Process in e-Learning.

Name: Lehti Pilt

Position: Senior specialist of educational technology

Organisation: University of Tartu

Country: Estonia

E-mail address: lehti.pilt@ut.ee

Short bio (150 words max): Educational background: BSc (biology), University of Tartu (1990); Master degree in educational technology, University of Southern Queensland Online, Australia (2003); PhD studies in educational technology in the University of Tartu 2005-2011 (not finished).

Work experience: educational technologist, Open University Centre, University of Tartu (2000-2006); Head of Educational Technology Centre, Lifelong Learning Centre, University of Tartu (2006-2016), Senior Specialist of Educational Technology, Lifelong Learning Centre, University of Tartu (2016-...). Member of Estonian e-learning quality assurance taskforce (2007-...).

Main activities and responsibilities: coordinating e-learning developmental work in the University of Tartu, organizing seminars and tutoring training courses for teaching staff, dealing with e-learning projects.

Name: Marge Kusmin

Position: PhD student

Organisation: Tallinn University

Country: Estonia

E-mail address: marge.kusmin@gmail.com

Short bio (150 words max): MSc in informatics (multimedia and learning management systems) Tallinn University (2007).

Member of Estonian e-learning quality assurance taskforce (2007-2010, 2014-...). Co-author of manuals about assessing quality of e-learning courses, learning objects, digital learning materials and articles about Quality Assurance Process in e-Learning.

Name: Toomas Plank

Position: director of the Institute of Physics

Organisation: University of Tartu

Country: Estonia

E-mail address: toomas.plank@ut.ee

Short bio (150 words max): PhD in physics, University of Tartu (2002). Member of Estonian e-learning quality assurance task force (2007-...). Co-author of manuals about assessing quality of e-learning courses and articles about Quality Assurance Process in e-Learning.



Proposal

Title:

Quality management of e-courses - process, supporting development of digital culture in higher education. Estonian case.

Abstract (150 words max):

This paper focuses on quality assurance and recognition process of e-learning courses in Estonian higher education institutions. It discusses the evolution of the process, its bottlenecks and ways of improvement.

The evaluation of the learning process is one of the most important parts of institutional accreditation. Until this year the focus has been on the effectiveness of teaching, study programme development, student assessment, etc. From the learners' point of view, the development of digital teaching materials and their good quality is an important motivator for learning. From the educational institutions' point of view digital teaching materials with high quality are important in the development of digital culture.

Text of paper (3000 words max):

Introduction

Estonian Lifelong Learning Strategy 2020 [1] aims at integrating digital culture into learning process on every level of education in Estonia. This means better usage of the possibilities of digital era in the learning process and propagating best practices widely in all educational institutions in Estonia.

From the perspective of the learners, the availability of digital learning materials, their quality and continuous development of digital skills and competences of users is important. In order to fulfil this goal, the advancement of digital culture (digital communication, learning and work culture) is important for educational institutions.

Estonian Quality Agency for Higher and Vocational Education, which is responsible for organising institutional accreditation in Estonia, has identified the need for a systematic, learner-centered approach to higher education institutions as a major guideline [2]. The use of educational methods that support the development of digital culture is highly valued and, therefore, the implementation of digital culture also plays an important role in the development of e-learning. To support this movement, a whole issue of the Estonian Journal of Education was devoted to the development of the digital culture in education in 2015 [3]. The development process of creating quality e-learning courses, their assessment and propagating best practices at national level is coordinated by the inter-university E-Learning Quality Task Force under the roof of Education Information Technology Foundation (hereinafter HITSA).

This paper describes the role of the Quality Task Force in the development of digital culture in Estonian education through the implementation of the Quality Label, its awarding process, selection of the "E-course of the year", and supporting materials for developing good e-courses like handbooks [4, 5, 6, 7] and evaluation rubrics for both the experts and for self-evaluation by the authors [6, 8]. We analyse the success factors of the process, challenges encountered and possibilities to implement this successful process also in other countries.

E-learning courses in Estonian higher education

The number of e-courses in higher education institutions in Estonia is growing at a fast pace. In the largest Estonian university, the University of Tartu, more than 5,000 e-learning and blended learning courses have been created by 2017, with 10-20% new courses being added every year [9]. 35% from



all courses took place partly or totally web-based in 2017 [9]. The University of Tartu has also been active in the development of MOOCs in Estonia and is already using a number of different MOOC courses, part of them in English and available to the whole world, part in Estonian, accessible to Estonian speakers. In 2017, nearly 12 thousand students at the University of Tartu participated in MOOCs [9]. The University of Tartu offered 15 MOOCs with 27 deliveries in 2017 and there were 10 MOOCs in English with 2554 participants all over the world [9]. Eight Tartu University MOOCs have received the national Quality Label and two MOOCs have received the „E-course of the year” title.

In the second largest university, Tallinn University of Technology the number of high-quality e-supported courses is counted as one of the key indicators of the study process. The university plans to introduce a three-step e-course system, where the first step is the creation of e-support for existing courses, the second step is the development of e-courses recognised by the HITSA Quality Task Force for Quality Label and the third step - creation of fully-digital courses [10].

Applied higher education institutions are also active in developing of digital technologies. In Tallinn Technical University of Applied Sciences 63% of courses were supported with e-courses in 2017 [11].

Role of e-learning Quality Task Force activities

The activities of the E-Learning Quality Task Force have contributed to the development of the digital culture in Estonian education by working out the methodology of evaluating quality of e-courses, preparing a number of handbooks [4, 5, 6] and propagating best practices nationally.

The E-Learning Quality Task Force was formed in autumn 2007 by e-Learning Development Centre (the predecessor of HITSA) with the following aims [12]:

- To create guiding materials for the instructional design process of e-learning and blended learning courses, aimed at the teaching staff and educational technologists of higher and vocational education organisations.
- To publish quality criteria for e-learning courses and design the process of awarding "Estonian e-Course Quality Label".

The development of the quality label awarding process coincided with the compilation of the manual for teachers which was created on the basis of the "Quality Manual for E-learning in Higher Education". Our manual [7, 8 UUS 4, 5] focuses on how to create an e-learning course with good quality. This is a step by step guide on how to create your first e-course or improve the existing and operational ones. Essential quality criteria are indicated at the end of each chapter (analysis, creating e-course, conducting a course and collecting feedback) of the manual which have to be met in order for the e-course and its instructional process to be recognised as fulfilling defined requirements [4, 5].

In addition to creating the methodology, the Quality Task Force has started an annual evaluating process of e-learning courses and awarding them national Quality Labels. The best course is selected as the "E-course of the year" [12]. The process takes place once a year, usually in spring. The decision to award the course with the national Quality Label is valid for 3 years

Methodology of evaluation of e-Courses

The process of awarding quality labels to e-courses is structured in three steps:

- self-assessment level - authors of the course evaluate their course by themselves according to the evaluation rubric [12], prepared by the Quality Task Force. The purpose of this assessment level is to increase the awareness about the acquired quality criteria.
- organisational level - the educational organisation (university/vocational school/ secondary school) gives a brief assessment of the e-course; their main task is to assess the content according to the organisation's quality criteria, and communicate student feedback, collected by the organisation.
- expert level - three e-learning experts evaluate the course according to the rubric for experts [12], prepared by the Quality Task Force; experts have to reach consensual decision - either the course is worth the quality label or not and give consensual feedback about the strengths and weaknesses of the course to the author, and, if possible, advise the author, how to improve the course. It must be noted that the process evaluates only the criteria

related to e-learning design and elements and not the content of the learning materials, as the e-learning experts might not be the experts in the field of the content of that particular course. The quality of the content of the learning materials will be evaluated at organisational level.

Figure 1 gives an overview of the number of quality label applicants and the number of awarded labels during the last 11 years - the whole period of existence of the quality label awarding period.

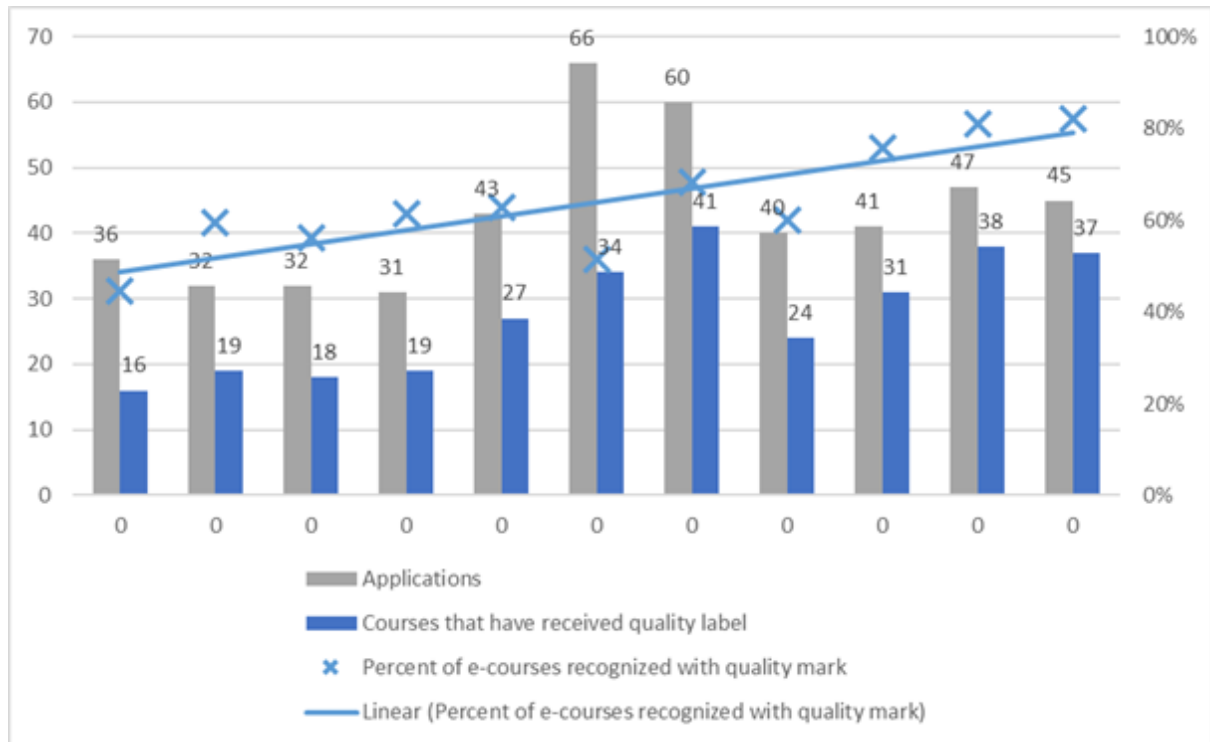


Figure 1. Number of quality label applicants and awarded labels in years 2008-2018.

After the end of the application period the Quality Task Force annually gathers expert teams/evaluators and conducts a two-day training for them. Every year about 40-50 volunteer experts (mostly educational technologists from different universities and vocational schools) are involved. Experts evaluate the courses being guided by the evaluation rubrics and give the balanced feedback to the authors. The goal is to outline good practices and constructive suggestions for improving the course.

In order to manage the whole process, a technological environment has been created where the teacher/course author can first give his course a self-assessment and present his course to the annual recognition process. The first special software was implemented in 2012. The new upgraded version of the software was implemented in year 2017.

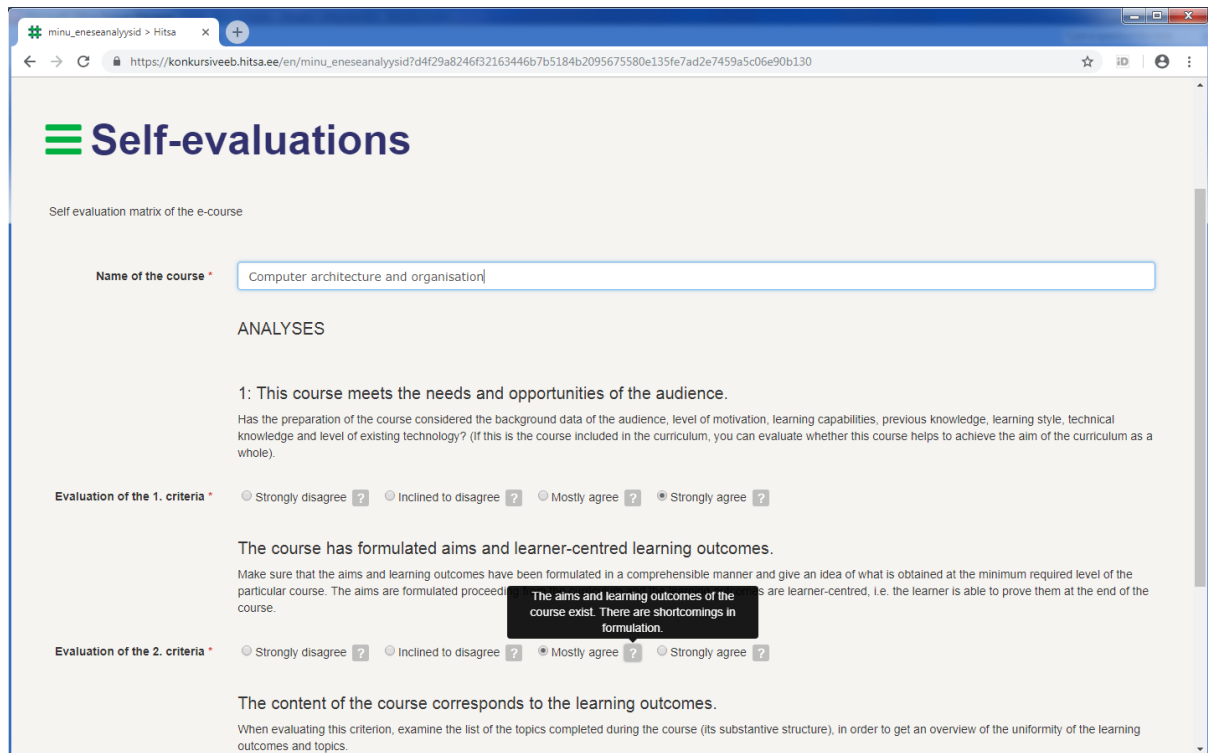


Figure 2. Screenshot of software homepage, self-evaluation form

At self-evaluation level, the applicant has questions and can answer them using radio buttons. For experts, the software enables individual evaluation first where each evaluator gives an independent assessment to the e-course. In the second round at group level, the software generates the evaluation draft on the basis of group members' individual feedback, so that the group members can use this during discussion and forming a consensual feedback to the course authors.

Every year feedback about the process is collected from both parties, course authors and expert evaluators in order to improve the whole process and make it as useful as possible for developing the learning process in organisations. The comments / suggestions made are taken into account and each year some changes have been made both in the recognition process and in the guidance material to improve the evaluation process.

The evaluation process ends with a joint event that brings together all the authors of the courses, recognises the best e-course authors, and shares best practices. Also the winner of the title "E-course of the year" is announced and an award is given to the authors of that course.

Conclusions and Discussion

Quality process strength.

So far the Quality Task Force activities have been focusing on e-courses, blended courses and lately also MOOCs development. Through our activities, we have created a community that values the quality of e-learning. The teachers' feedback to the quality process confirmed that the majority of teachers were interested in expert feedback to their courses. The quality label itself was only the second motivator. This confirms the good news that teachers are willing and motivated to improve their courses according to the feedback suggestions. The involvement of more and more members of the teaching staff and evaluation experts will be important in the near future. It will extend the spread of good practice at all levels of Estonian education, especially in higher education.

As shown in figure 1, the percentage of quality courses among the applicants is increasing and, in recent years most of the courses, presented to the quality process, have been recognised with a Quality Label. We attribute this positive trend partly also to the activities made by the Quality Task Force.



Challenges and/or possible weaknesses of the process

A major challenge is to find knowledgeable and impartial evaluators for the expert level of the quality label process. Assessment requires the ability to manage with the various e-learning environments, objectivity and provide feedback to the author to help them improve the e-course. As the work is voluntary and requires quite a lot of evaluators' free time, it is also important to create a motivational package for assessors. Experts try to give the balanced feedback to the authors. Nevertheless, in recent years we have had to deal with the quality of feedback.

Second challenge is that In our quality process we are not evaluating the content of the courses at expert level. This is mainly due to the lack of experts, capable to evaluate both the content and the e-quality of the courses. The last content quality filter is at organisational level. We are aware that in the case of bad coincidence, the course with doubtful content quality might receive a quality label. A possible solution to respond to this challenge is to include content experts in expert teams.

Implementation in some other country?

Estonia has tested the quality process of e-courses more than ten years. It has proven to be a good motivator for teachers to make their courses better and a good way for students to know which digital courses are the best. If there are interested countries to implement the similar process, Estonian Quality Task Force is ready to share the knowledge and we are very interested in the experience of other countries.

Future plans?

The use of digital learning environments and digital learning materials will also open up new opportunities for analysing the learning process [3]. Based on the recorded data, one can monitor learning activities and analyse student learning. The handling of these problems has already become a separate field of study - learning analysis. This is one direction where E-learning Quality Task Force is planning to move.

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Discussion questions:

The percentage of quality courses among the applicants is increasing and the discussion question are how to develop the process; how to attract more university lecturers. Another issue could be how to better link e-courses quality assessment process to the development of digital culture in higher education institutions. Is it possible implementation the process in other countries.
