8th European Quality Assurance Forum

21 – 23 November 2013

University of Gothenburg, Sweden

Working together to take quality forward

Paper proposal form

Deadline 2 August 2013

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.

Author(s)

Name: Kathrin Wetzel

Position: research assistant and project coordinator

Organisation: Carl von Ossietzky University of Oldenburg

Country: Germany

E-mail address: kathrin.wetzel@uni-oldenburg.de

Name: Dr. Bernd Dobmann

Position: research assistant and executive education

Organisation: Fraunhofer Academy, Munich/Fraunhofer-Gesellschaft

Country: Germany

E-mail address: bernd.dobmann@fraunhofer.de

Both authors are responsible for presenting the paper at the forum.

Proposal

Title: The importance of quality assurance in the development of extra-occupational courses of study

Abstract (150 words max): Quality assurance is a necessary benchmark in order to identify high quality offers on the further education market. Quality assurance could be described as an important factor to reach potential lifelong learners, who want to start or to continue higher education. This paper shows the intermediate result of a research project, in which nine extra-occupational study and certificate programs will be developed. The project focuses on the STEM-subjects (science, technology, engineering and mathematics) and preliminary results of a sub-study on quality management are presented in this paper. It refers to universities and companies and tries to identify the expectations of those two stakeholder groups on quality in part-time studies. The goal is to

improve an already developed and tailor-made quality management system in the area of continuing academic education in the STEM-subjects, which consists of ten quality standards regarding the course and program or the organisational level.

Text of paper (3000 words max):

Organization and structure of the research project

The German government has taken an active role in strengthening Germany's path towards the knowledge society in the last few years. Therefore, in 2008 the federal government launched the qualification initiative "Advancement through Education: Open Universities" which seeks to increase the educational opportunities of heterogeneous target groups and to ensure a solid base of professionals for the future. The objectives of the reform efforts are to secure the offer of specialists, to improve the permeability between vocational and academic education, to transfer and integrate knowledge more rapidly into practice, and to safeguard the international competitiveness of the science system to strengthen a sustainable profile in terms of lifelong learning strategies and occupational studies. The target groups of this initiative are non-traditional students, such as people with family responsibilities, professionals, such as people in employment and who are Bachelor-graduates, as well as people with professional skills, who do not have a classical higher education entrance qualification, job-returnees, drop-out students or unemployed graduates.[1]

One of the BMBF[2]-funded projects is the collaborative research project MINT-Online. It is the aim to develop extra-occupational courses and certificate programs in the STEM-subjects.[3] The project focuses solely on part-time courses of study from master's degree and certificate level for the STEM disciplines. Due to the demographic development, extension of working time, shortage of skilled experts, academization of the world of labour (see Wolter 2011, Stock 2012), in particular the orientation of the universities to lifelong learning and studying is an absolute necessity. Extra-occupational courses therefore can be described as part of the diversification of higher education in the last decade (see Wolter 2011). Due to the fact that these target groups have specific and individual conditions to study, such as the professional activity, a flexible learning setting is necessary (e.g. e-learning or mobile learning). They need flexibility in location and time (see Bloch 2006). The continuing education programs have a great technical support and they differ in a significant way from the traditional campus programs and the form of teaching, which is reflected in the quality and understanding of the applicable quality assurance tools. In the MINT-Online project nine courses and certificate programs will be developed or even established. To provide the right framework for this research, four cross-cutting areas are created to provide new scientific insights and support services to the programs. The project consortium includes four German universities, research organizations, Fraunhofer Institutes and the Fraunhofer Academy.

---

1 For further information about the qualification initiative see http://www.wettbewerb-offene-hochschulen-bmbf.de/foerderprojekte.
2 BMBF stands for Federal Ministry of Education and Research. It is a Ministry of the Federal Republic of Germany. It aims to promote applied research and technological development.
3 The STEM-subjects (science, technology, engineering and mathematics) are the equivalent to the German MINT disciplines (mathematics, computer science, Natural sciences and Technology).
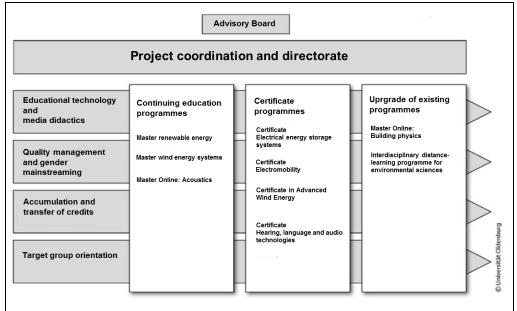
Figure 1: Project structure of MINT-Online (cf. www.mintonline.de)

The aim of the participating universities (Oldenburg, Kassel, Stuttgart and Hagen) and research institutes of the Fraunhofer-Gesellschaft is to offer advanced master's degree and certificate programs and upgrade existing programs by 2015 and to test these programs on a pilot basis.

The importance of quality
The project focusses on the quality of teaching in the system of the German universities. This system has experienced a strong transformation over the last years. This was due to the European Higher Education Reform in the context of the Bologna Process in 1999, which resulted in the introduction of the Bachelor and Master degrees as a consequence. This also led to a reorganization of quality by the formation of federal states, which installed common structural requirements for the accreditation of study programs on the basis of the Higher Education Law (HRG) since 2003. The aim was to design studies and examinations on an equivalent level and thereby enable the exchange of students between universities.[4]

Parallel to this development, the market for further education experienced a strong growth driven by the changes in society and the labour market (see Weishaupt 2012). Given this shift, lots of private providers realized one or more accreditations in connection with the quality expectations of potential students. In addition, some of these institutions also passed through some of the economically relevant quality certifications of their quality management systems such as an ISO 9001 certification. As a result of this development, it is clear that quality assurance and development in the future are no longer indispensable in higher education. In particular for the field of further education, in which not only potential

---

4 For further information see http://www.akkreditierungsrat.de/index.php?id=grundlagen and http://www.akkreditierungsrat.de/fileadmin/Seiteninhalte/KMK/Vorgaben/KMK_Laendergemei nsame_Strukturvorgaben_aktuell.pdf.

prospective students but also companies and institutions belong to the target group, high-quality-offers have a large influence for a successful human resource development.

Additionally, the quality of academic further education has a particular importance, since participants are facing a kind of uncertainty caused by incomplete information regarding the training opportunities and the resulting outcome. This uncertainty can also be a threat to the quality as a whole because the absence of quality assurance brings a loss of quality in the education market. This was also the conclusion reached by the economist Akerlof, who defined the lemon principle as an example of the second hand car market (see Martini 2008). To counteract this development, the cross-cutting field of quality management and gender mainstreaming develops its own quality assurance system based on ten quality standards, in addition to the possible existing external quality assurance such as accreditation or an additional quality management system. This quality assurance system takes additional account of the peculiarities of the study format, the STEM-subjects and the target group.

Research method
In the context of the applied method, first the results of an expert workshop and an evaluation of international established quality assurance systems with focus on extra-occupational distance courses were obtained. Based on these results, universities, businesses and students were questioned about the importance of quality standards related to the quality of the offer, before national and international expert opinions will be obtained.
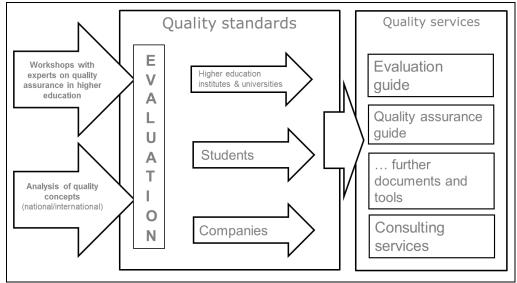

Figure 2: Presentation of the method (Source: Authors compilation)

On the basis of the developed quality assurance system in the project, services and offers such as guidance or counselling services will arise. These services shall complete the already existing quality assurance tools at the universities (e.g. accreditation). The usefulness of this expansion has particular been shown in the survey of Human Resource managers of companies. The answers of these respondents confirmed that there is a need of comprehensive quality requirements resulting for example in the teaching staff, the flexibility of the study organization or the requirements for the teaching staff.

The questioned German universities still seem to be too attached to the historical structures of traditional students. A comparison of mutual expectations between companies and universities thus could be achieved by the research design. This comparison will be underpinned by the evaluation of the students' expectations survey which is in the main focus of the research design.

Quality assurance in MINT-Online
In conclusion, it can be stated to the quality of academic further education that it can mainly be influenced by taking account of the specific situation of people with the readiness to further qualification (see Kroll 2011). In the course of the research project, two main areas have been identified, which have influence on this specific situation: On the one hand there are measures that can be implemented at the course and program level. This level focuses on the teaching-learning-process. On the other hand, the improvement of quality of academic further education opportunities can be realized on the organizational level.

These two levels allowed to break down five quality standards for each level and associated structures, which are presented below.

Quality standards at the course and program level
The standard of learning outcomes means that the desired learning outcomes are achieved by an extra-occupational training, which must be clearly defined and communicated to the participants. In addition, these outcomes have to be reflected in the chosen field of the study format in the teaching-learning interaction and in the testing formats.

The teaching-learning interaction standard bases on the fact that adult learners prefer an activating learning style. For example, it can be supported by role plays and group discussions. Furthermore, academic knowledge should be integrated with practical experience and the exchange with lectures has to be guaranteed.

Online-based study formats promise a high degree of flexibility and allow an independent learning setting concerning time and location. The standard of educational technology implies the use of new educational technologies. That creates the possibility to develop innovative learning formats for example through learning-management-systems (i.e. case studies, simulations, playful test questions or virtual laboratory units).

Further, the course materials must be suitable for self-directed learning and there should exist a didactic concept for the learning achievement. The materials need to have a relation to professional practice and should be state of the art.

The standard of exams and assessment assumes that the assessment of coursework fulfils various functions. Lecturers receive information regarding the performance level of the participants out of formal assessments (i.e. through tests and exams). In addition, informal tests provide an important feedback to the learning level and students' performance progress.

Quality standard	Description
Learning outcomes	- Formulation of clear objectives - Determination of skills and competencies, which the participants reach in the academic further education
Teaching-learning interaction	- Opening a variety of opportunities for the interaction between participants and lectures - Support of active learning
Educational technology	- User-friendliness - Offer a variety of communication tools for an active learning process
Course materials	High-quality teaching materials with professional didactic methods and a regular update
Exams and assessment	- Regular feedback on the individual learning progress - Development and communication of an assessment-system

Table 1: Quality standards of the course and program level (Source: Authors compilation)

Quality standards of the organizational level

The standard concerning the management and structure of responsibility focuses on the organization of universities. Therefore it is important (i.e. admission or exam organization) to define clear responsibilities with regards to the relevant organizational issues in the academic education.

Based on the heterogeneous target group, the standard concerning the design of admission and transition is a relevant factor. The target group often have diverse and sometimes international and/or non-academic skills and abilities. Due to the recognition of such benefits, there must be a legal certainty and also a transparent and within a reasonable timescale done process at the university.

The heterogeneous target group once again is the reason for a further standard. The aspect of consulting and service is limited in the classic service facilities and offers of a university. The continuing education students are able to use these offers only in a limited maximum, so good advice and support is essential.

Furthermore, the requirements for lectures in continuing study programs are different. The qualification in the fields of technical and social competence, methodological knowledge and skills in the use of educational technology influences the quality of the offer.

The system and rules of evaluation and information management at the university are a very important standard to assure quality. The description, analysis and evaluation of projects, processes and organizational units is performed by evaluation and can be executed by external or internal staff and in formative or summative way to improve the course offerings.

Quality standard	Description
Management and responsibility structures	▪ Embedding further education into meaningful responsibilities and management structures
Design admission and transition	▪ Review of further education offers in terms of the transfer and crediting of earlier achievements
Consulting and service	▪ Adaptation of consultancy offers and infrastructure on the needs of the heterogeneous target group
Requirements for lectures	▪ Professional and methodological training of lectures ▪ Competence of lectures in dealing with non-traditional students ▪ If necessary further qualification
Evaluation and information management	▪ Regular evaluation of the offers ▪ Reporting the results back to all the involved persons ▪ If necessary: Introduction of improvement measures

Table 2: Quality standards of the organizational level (Source: Authors compilation)

Implementation of the quality standards

For the implementation and establishment of the quality assurance system, a manual for the academic further education staff to enable a better explanation, realization and application of the developed standards, has been developed. This document intends to complement already existing quality assurance instruments at different universities in order to achieve a superior quality range of degree programs and certificate courses. Therefore, a uniform description of the ten quality standards, associated challenges and options to influence these challenges are provided. Deduced from this, success criteria to secure an improve quality are given. To simplify the handling of the quality standards in the everyday work of the staff in the further education area, the developed success criteria are complemented by checklists. They can be used for self-assessments or for any external audits.

The main issue in the cross-cutting area quality management in the research project is to come to an agreement with all involved partners in the project in order to have an accepted, successfully tested and evaluated document available in 2015.

Conclusion

The quality requirements of the academic further education could not be completely fulfilled by an existing system, which is geared toward the needs of traditional students in Germany.

The intermediate result of the research project shows how companies, universities and students think about the importance of the right frame setting at the course and program level or rather the organizational level. With regard to the quality criteria, it becomes clear that all stakeholder groups prioritize different criteria when they judge the quality of offers in further academic education. As a consequence a consensus is required a) between the universities and b) the participants and companies. Normally, further education areas at a university include an extension of the priority areas of this institution. In consequence, the existing quality assurance systems have to be enlarged to take the special quality needs of these areas into account. Quality in further academic education is a necessary factor to achieve success and to get participants paying – no matter, whether they pay the course of study on their own or their employers do. The identified and developed additional quality standards can help to make programs better and successful. Even in the fields of developing the teaching personnel, the practical orientation of the contents or the respective marketing strategy of the study programs, some important areas of action have been identified and described. The future will show, if the developed quality standards lead to success. Current discussions with the project partners already show the need and the willingness to use the documents. Further education is a risky and ambitious plan for most universities in Germany,

but a lot of them will have no choice, if they want to survive in a rapidly changing environment in the academic system.

References

Martini, M. (2008). Akkreditierung im Hochschulrecht – Institutionelle Akkreditierung, Programmakkreditierung, Prozessakkreditierung, *Wissenschaftsrecht, 41 (3), pp. 232-252.*

Stock, G. (2012). Vorwort zu den Stellungnahmen und Empfehlungen zur MINT-Bildung in Deutschland auf der Basis einer Europäischen Vergleichsstudie. Berlin-Brandenburgische Akademie der Wissenschaften (BBAW), p. 7.

Bloch, R. (2006). Wissenschaftliche Weiterbildung im neuen Studiensystem – Chancen und Anforderungen. Eine explorative Studie und Bestandsaufnahme. HoF Arbeitsberichte, p.44.

Wolter, A. (2011). Die Entwicklung wissenschaftlicher Weiterbildung in Deutschland: Von der postgradualen Weiterbildung zum lebenslangen Lernen, *Beiträge zur Hochschulforschung, 33 (4), p. 23.*

Kröll, M. (2011). Strategien zur Professionalisierung der wissenschaftlichen Weiterbildung – Wege von der Angebots- zur Nachfrageorientierung, *Berufs- und WIrtschaftspädagogik online, Spezial 5, p.1.*

Weishaupt, H. (2012) et al. Autorengruppe Bildungsberichterstattung: Bildungsbericht 2012. Bildung in Deutschland: Ein indikatorengestützter Bericht mit einer Analyse zur kulturellen Bildung im Lebenslauf, Deutsches Institut für Internationale Pädagogische Forschung, p.123.

Online sources

http://www.akkreditierungsrat.de/index.php?id=grundlagen

http://www.bbaw.de/publikationen/stellungnahmen-empfehlungen/Stellungnahme_BBAW_MINT.pdf

http://www.bwpat.de/ht2011/kv/kroell_kv-ht2011.pdf

http://www.akkreditierungsrat.de/fileadmin/Seiteninhalte/KMK/Vorgaben/KMK_Laendergemeinsame_Strukturvorgaben_aktuell.pdf

www.mintonline.de

http://www.wettbewerb-offene-hochschulen-bmbf.de/foerderprojekte

Questions for discussion:
1. Is the way of an additional quality instrument in the academic further education promising (acceptance and value)?
2. Can quality management really improve the demand for further education courses offered?
3. How can the programs be continuously developed with participants and companies at a high quality level?

Please submit your proposal by sending this form, in Word format, by 2 August 2013 to Ivana Juraga (Ivana.Juraga@eua.be). Please do <u>not</u> send a hard copy or a PDF file.