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Sub-theme 1: New technologies, innovation and quality assurance: how to consider QA and its key principles in a world of disruptive technology and constant change.

Framework for quality assurance of e-assessment

Authors: Esther Huertas Hidalgo, Senior advisor, Catalan University Quality Assurance Agency, AQU Catalunya

Maria Kelo, Director, European Association for Quality Assurance in Higher Education, ENQA

Roger Roca Solà, Project manager, Catalan University Quality Assurance Agency, AQU Catalunya

Paula Ranne, Deputy Director, European Association for Quality Assurance in Higher Education, ENQA

Anaïs Gourdin, Project manager, European Association for Quality Assurance in Higher Education, ENQA

Martin Foerster, Secretary General, European Quality Assurance Network for Informatics Education, EQANIE

A computer and laptop would be required for the presentation of the paper in the conference.

Abstract (100-150 words)

This paper presents a framework for quality assurance of e-assessment developed under the scope of the TeSLA project. The importance of assuring the quality of e-assessment is paramount for public confidence on technology-enhanced higher education provision.

The purpose of the framework is to increase the transparency in any form of e-assessment applied in measuring learners' learning and to assist higher education and other providers, as well as, quality assurance agencies and governments in implementing and evaluating e-assessment. It includes eight standards in alignment with the ESG. The usefulness of this framework has been proved for the enhancement of quality assurance in HEIs that implement e-assessment as well as for quality assurance agencies.

Article

1. Introduction to e-assessment

Teaching and learning process is complex and includes the definition of different components: intended learning outcomes, learning activities, assessment, etc. The Standards and Guidelines for Quality Assurance (the "ESG") [1], applicable to all higher education offered in the European Higher Education Area (EHEA), links assessment to the student-centred learning concept, as assessment allows students to demonstrate the extent to which the intended learning outcomes have been achieved. Therefore, assessment is a crucial element for the learners' progression.

The use of information and communication technology (ICT) in assessment brings another level of complexity. It not only refers to different teaching and learning approaches or different technologies but also to a common understanding of academic integrity or cheating.

Nowadays there is a lack of a framework for quality assurance of e-assessment (FQAeA) in Europe. The importance of assuring the quality of e-assessment is paramount for public confidence in technology-enhanced higher education provision. The TeSLA project ("An Adaptive Trust-based e-assessment System for Learning") puts a special emphasis on e-assessment and the quality criteria in order to improve the quality of the learning and teaching process and it intends to fill this gap [2].

2. Framework for QA of e-assessment

The FQAeA is designed to assist higher education and other providers, as well as, quality assurance (QA) agencies and governments in implementing and evaluating e-assessment in the EHEA and other regional contexts. The main purpose of the FQAeA is to increase the transparency in any form of e-assessment applied in measuring learners' learning.

The key element of this framework is to assure that assessment processes are student-centred, relevant, reliable and trustworthy. Thus, digital assessment does not promote plagiarism and other forms of academic malpractice. On the contrary, it makes them more visible and, as a result, allows them to be addressed.

The FQAeA includes eight standards which are aligned with the ESG (2015) [1] and with the recent report by ENQA's working group on QA and e-learning (2015-2018) [3]:

- 1. Policies, structures and processes for quality assurance of e-assessment
- 2. Assessment of learning
- 3. Authenticity and authorship
- 4. Infrastructure and resources
- 5. Learner support
- 6. Teaching staff
- 7. Learning analytics
- 8. Public information

3. Results of the implementation of the framework for QA of e-assessment

This framework has been checked in the TeSLA project [2]. Seven European universities (see <u>http://tesla-project.eu</u>) with different backgrounds testing the TeSLA system received a panel of peer-review experts which focused on evaluating e-assessment practices. This paper focuses on the standards which are more relevant from the e-assessment point of view, which are:

• Policies, structures and processes for quality assurance of e-assessment

Good practices prove that all HEIs have adequate general policies, structures and processes for QA and an alignment of assessment with their pedagogical models. Focusing specifically on eassessment, off-campus universities comply with most of the requirements and need fewer efforts to improve their processes. On the contrary, recommendations for on-campus universities were related to the development of internal and external policies and regulations to properly adjust to elearning and e-assessment applications. Besides, new ethical and legal issues (e.g. new EU GDPR), as well as national and European regulations, need to be revised and kept up-to-date.

• Assessment of learning

Good practices in the assessment of learning identify that all universities apply a diversity of assessment methods taking into account a student-centred pedagogical approach, including learners with special educational needs and disabilities (SEND learners). It is also observed that chosen assessment methods are aligned with learning outcomes in all HEIs. Recommendations encourage all HEIs to enhance the learning experience by introducing even more diverse e-assessment methods taking advantage of the new authentication and authorship tools.

• Authenticity and authorship

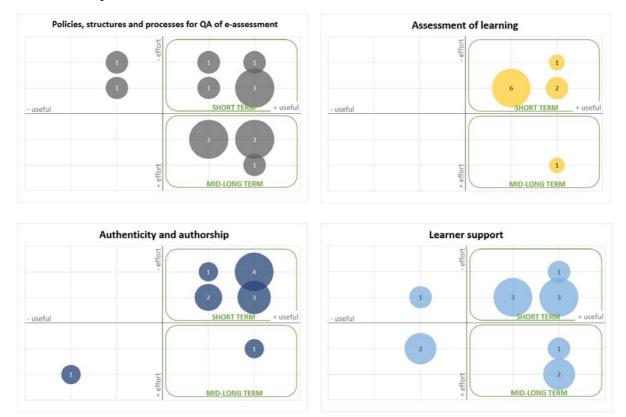
All HEIs address academic integrity (especially plagiarism). Besides, there is an awareness of technical and security implications. In general, when HEIs introduce authentication and authorship technologies, it is suggested to implement a full register of external attacks and technical problems.

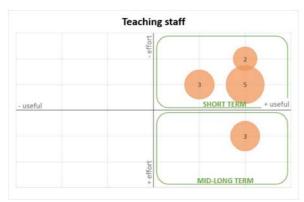
• Learner support

All HEIs have well-established and readily support mechanisms to meet all learners' needs, including administrative, technical and pedagogical support. SEND learners are provided with a wider range of support services and adapted learning resources. Recommendations relate to the analysis of learners' feedback on the learners' support services. Moreover, learners should be always provided with technical guidance.

• Teaching staff

On the basis that HEIs should guarantee the development of teaching staff competencies, training on the innovation of the pedagogical practices, including e-assessment, should be in place. Other elements that should be accessible to teaching staff are: updated technical information, academic integrity guidelines and support services. Each university received a set of recommendations that were analysed from two perspectives: i) the efforts needed to implement the recommendation; ii) and usefulness. Figure 1 presents the aggregated results corresponding to the areas of improvement in the abovementioned standards. In general, results illustrate that most of the recommendations were considered to be easily applicable and useful. This would lead to an enhancement of the e-assessment process in a short term period. Nonetheless, there are some recommendations that due to the complexity of the implementation would require a mid-long term period. Especially, those related to policies, structures and processes.





Figures inside the bubbles represent the number of recommendations with same values.

Figure 1. Classification of recommendations in order to meet the expectations included in the FQAeA

Finally, it could be said that fully online universities comply with most of the elements included in the FQAeA, while traditional universities offering distance education should take into consideration the elements included in the framework in order to adapt to this new scenario (i.e. pedagogical model, VLE, teacher's support, etc.).

5. Conclusions

The FQAeA has been proven to be useful for the enhancement of QA in HEIs that implement eassessment. Although this study reflects the current state of HEIs and QA processes towards the implementation of e-assessment, it is undoubtedly that further development is needed from HEIs.

E-assessment should be perceived from a holistic approach. As it is a not a stand-alone process, review procedures should analyse how each HEI integrates e-assessment within its teaching and learning process and organizational culture.

Finally, it can be concluded that the FQAeA is also a valuable instrument for QA agencies.

6. References

[1] Standards and guidelines for quality assurance in the European higher education area (ESG). 2015. Brussels, Belgium. <u>http://www.enqa.eu/wp-content/uploads/2015/11/ESG_2015.pdf</u>

[2] TeSLA project "An Adaptive Trust-based e-assessment System for Learning", Number 688520. 2016-2018. H2020-ICT-2015/H2020-ICT-2015. <u>http://tesla-project.eu/ (Accessed: 13 July 2018).</u>

[3] Huertas E., Biscan I., Ejsing C., Kerber L., Kozlowska L., Marcos S., Lauri L., Risse M., Schörg K., Seppmann G. (2018). Considerations for quality assurance of e-learning provision. ENQA, Occasional papers 26. <u>http://www.enqa.eu/indirme/papers-and-reports/occasional-papers/Considerations%20for%20QA%20of%20e-learning%20provision.pdf</u>

7. Acknowledgements

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