Exploiting the collaborative potential of technology enhanced assessment in higher education

Q: How can digital technologies enhance peer assessment in higher education?

Q: What are the key challenges for technology enhanced peer assessment?

This paper considers the following aspects of technology enhanced peer assessment:

- The rise of peer assessment in higher education
- Benefits and challenges of peer assessment
- Peer assessment using technology
- Peer assessment and disciplinary cultures

Key recommendations

- Policy makers and practitioners should acknowledge the importance of peer collaboration and networks for learning and recognise that learning is social, distributed and collective.

- Successful peer assessment requires individual responsibility from students, interdependence on peers, and trust within groups. Practitioners should recognise that students can be anxious about the ability of their peers to assess learning, their own abilities to assess others’ work and the overall validity of peer assessment.

- Digital technologies have the potential to support collaborative learning and assessment practices, such as undertaking knowledge building activities, co-evaluation and social interaction.
The rise of peer assessment in higher education

Peers assess each other’s work in a wide range of disciplines. Like other forms of assessment, peer assessment can be viewed as a method for determining the quality of student work. Peer assessment is becoming increasingly widespread in higher education, as it is a complex form of assessment that can support a wide range of learning outcomes. Peer assessment may be linked to the Education and Training Foundation (ETF) and the JISC Assessment & Feedback programme. A JISC review of e-assessment techniques found little evidence of these tools actually being used in current assessment practices. The potential of Web 2.0 technologies has also been questioned in relation to the social and educational identities and inequalities. Although some argue that using technologies like wikis or blogs can further enhance some students by benefiting those who are already using social media.

Benefits and challenges of peer assessment

Peer assessment can be used to evaluate individual contributions to learning. It assesses the collective knowledge building activity using portfolios, through which students evaluate their own and others' work. Peer assessment is a complex skill that requires training and support for students, both in giving feedback and in receiving and managing evaluations of their own work. Peer assessment has the potential to support collaborative learning and assessment practices, such as undertaking knowledge building activities, co-evaluation and social interaction. Employment of digital technologies to support collaboration and peer learning is no longer viewed as an individual activity. Additionally, as HE emphasizes learning is no longer viewed as an individual activity. Peer assessment challenges these patterns through its involvement and ownership of tasks by students. To facilitate a broader adoption of peer assessment practices, a wider cultural shift is required. In line with prevailing learning theories, peer assessment practices should challenge the current emphasis on individual learning and promote collaboration. This ultimately requires a deeper institutional understanding of and commitment to the benefits of peer learning and assessment, as demonstrated through policies and supported practices. Support to such a shift, peer assessment practices and experiences should be more visible and widely shared among educators. This would clarify peer assessment’s benefits, elucidate the methods that elicit these advantages and share the required time investment to make this happen. This is particularly important to consider across disciplines, due to the diversity of the ‘ways of thinking and practicing’ that manifest in different HE disciplines.

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Assessment practices should challenge the current emphasis on individual learning and promote collaboration.
3. Exploiting the collaborative potential of technology enhanced assessment in higher education

Assessment is universally recognised as one of the most important – and powerful – elements of an educational experience. It is also seen as one of the hardest to reform. However, there is an increasingly accepted need for rethinking assessment if it is to keep up with current theoretical, cultural and technological developments affecting teaching and learning.

Digital technologies open up new possibilities for more personalised, immediate and engaging assessment experiences. However, the use of digital technologies for assessment (referred to as ‘technology-enhanced assessment’) has yet to be ‘transformative’, with current practices either replicating traditional assessment methods or manifesting in pockets of innovation that are not widespread.

How the potential of digital technologies can best support improved assessment practices and preferred educational outcomes is becoming an issue of increasing importance. An acknowledgement of the potential that digital technologies offer should recognise the complexity of the task, the many factors affecting successful educational change, and the significant ethical questions raised by the use of digital technologies in assessment.

This series of discussion papers draw on a substantial review of literature which aimed to identify the different ways in which technology currently impacts on educational assessment practices and how it could contribute to a new vision for assessment.

The review of literature is available at: bristol.ac.uk/education/research/sites/tea

The following discussion papers have been produced in order to highlight key issues and questions identified by the review of literature:
- Paper 1: Transforming education through technology enhanced assessment
- Paper 2: Integrating the formative and summative through technology enhanced assessment
- Paper 3: Exploiting the collaborative potential of technology enhanced assessment in Higher Education
- Paper 4: Learning analytics and technology enhanced assessment
- Paper 5: Ethical issues in technology enhanced assessment
- Paper 6: National standards and technology enhanced assessment

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