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Learning and peer feedback in shared online spaces

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Abstract

Peer feedback, where students evaluate and give comments on each other's work, is a valued form of learning activity. Giving and receiving peer feedback, particularly if assessed, encourages students to engage with the assessment criteria and reflect on their work, promoting a deeper understanding. This paper introduces a project to investigate approaches to using peer feedback in shared online spaces, as part of distance learning courses. One approach uses a wiki, where students each contribute their work and other students provide evaluative comments and advice. The other approach uses OpenStudio, a 'studio' environment where students upload self-produced media objects, such as photographs and presentations, and comment on each other's work. Both approaches have produced high levels of student engagement. An initial examination of peer feedback in a wiki indicates that the quality of feedback is high, but students do not make as much use of it as they might. Survey results for a course using a studio (with feedback from peers but not tutors) reveals some students who, while they enjoy the sharing activities, believe they need 'expert' opinion.

This project will evaluate these two approaches to online peer feedback in order to identify successful features in terms of (a) engaging students and (b) promoting student learning. The project will also identify areas for improvement. The first stage will map the uses of peer feedback in Computing and IT courses of the UK Open University. This stage will document: the educational objectives and intended learning outcomes of the activities; what students share and discuss in the activities; and, if the activities are assessed, how this is done. The second stage will evaluate the peer feedback activities in three courses which use online spaces for sharing and peer feedback. Data will be collected from students and tutors through focus groups and online surveys. The course forums will also be used to invite students to give their views. A qualitative analysis will be undertaken of online artefacts and interactions.

Skills in evaluating the work of others and giving constructive feedback are important, both in education and beyond. This project will help develop these skills in online learning students. It will do this by generating case studies, investigating learning designs and proposing best practice guidelines for using and assessing online peer feedback.

Keywords

peer feedback; networked learning; 'studio' learning; wikis; online learning; assessment

Context of the research

For many years UK Open University course teams have used online peer feedback as part of the assessment process. For example, students have worked in small groups in an online forum, dividing up the work for a report and commenting on drafts of sections produced by their peers. More recently, wikis have been used as an appropriate and effective tool for collaboration and peer feedback. Another valuable approach is to focus students' interactions around artefacts created by students themselves (Lee et al., 2008), and to encourage them to share and discuss their creative practices. A 'studio' environment such as OpenStudio, developed by the UK Open University, enables students to create and upload audio-visual resources, and engage in peer feedback, which can then form part of the assessment. This innovative approach has proven to be particularly engaging for students.

Peer feedback, where students evaluate and give comments on each other's work, is considered beneficial in learning because students develop skills in reflection (Nicol & Macfarlane-Dick, 2006), and this promotes deeper understanding. Students acquire the skills to identify assessment standards and criteria, to apply these to their own work, to make judgments about the work of others, and to be informed by the judgments of others (McNulty, 2011). Various studies have highlighted concerns about the fairness of peer assessment in higher

education (Kaufman & Schunn, 2011), but the actual process of giving feedback is considered to be of particular value (Topping, 2010).

Peer feedback in a wiki

Wikis are widely available on the Web and are useful tools in education as they help promote participation, interaction and collaboration among students (West & West, 2009). Using a wiki, students' work becomes visible and public, encouraging exchange of ideas and suggestions for improvement. Experience at the Open University has shown that students' peer feedback via wikis can be of a quality comparable to that of their tutors (Walker, 2013). As part of the second level course *Communication and Information Technologies*, which attracts about 750 students per year, groups of between 4 and 8 students develop text, in a wiki, about online communication. For the assessed activity, each student writes a wiki page on a topic such as social networking, virtual worlds, etc. and provides feedback to other students in their group. They then improve their own contribution using the feedback received from peers. Figure 1 shows an example.

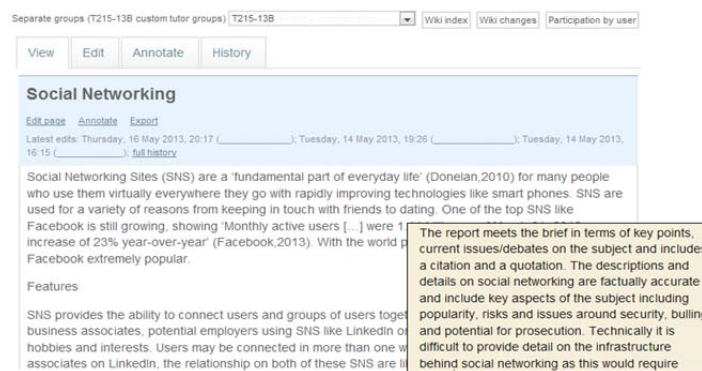


Figure 1 Peer feedback in a wiki environment

Peer feedback in a studio environment

OpenStudio was first developed for use on the UK Open University 10-week course *Digital photography: creating and sharing better images*. This course aimed to help students to develop their technical, visual and creative skills in photography, and to learn about the technology of digital photography. The course attracts between 400 and 1500 students each presentation (a total of 14,650 in 14 cohorts). There is no individual tutor support; instead students share their photos in OpenStudio and build up a portfolio to submit as part of the end-of-module assessment. By discussing and critiquing each other's work in a controlled, supportive environment, students are helped to develop their visual awareness and ability to reflect on and articulate their skills. Small peer groups are recreated every week from those students who are currently uploading photos; this ensures that students meet a wide range of peers but can also follow individuals should they wish. Figure 2 illustrates how the OpenStudio space is used for peer feedback on a user-generated photograph.

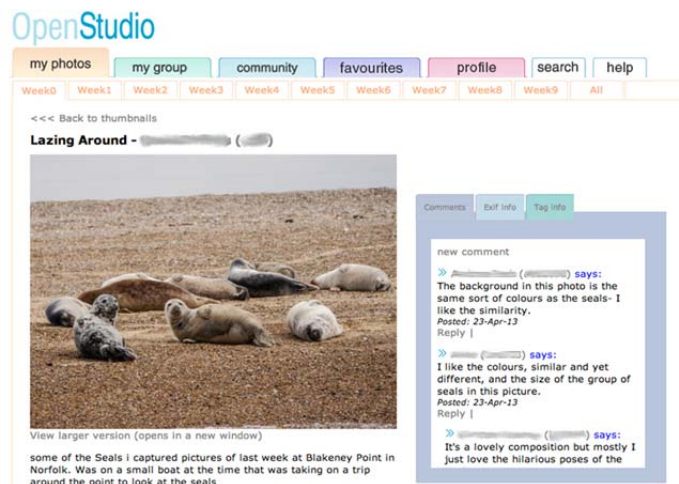


Figure 2 Peer feedback given on a photograph in OpenStudio (*Digital photography*)

Although OpenStudio was initially developed as a tool for a single course, its transfer across the UK Open University has been significant and impressive, and it is currently being ported into Moodle. An adapted version of OpenStudio is used on the level 1 course *My digital life*, which attracts around 2,000 students twice a year. An assessed activity in this course involves each student developing an audio-visual presentation. Students upload their presentations and give feedback on each other's work in small groups. Students are asked to provide a summary of the feedback they gave to two other students and explain what they would do to improve their presentation, given the feedback received. An example of student feedback on a presentation is shown in Figure 3.

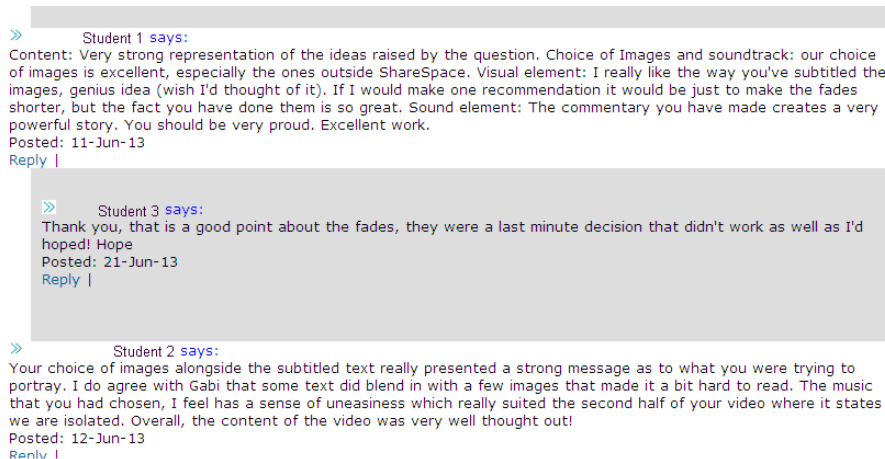


Figure 3 Peer feedback given on an audio-visual presentation in OpenStudio (*My digital life*)

Peer learning

In these examples of shared online spaces, students use peer commenting to learn from each other, improve their work and develop their skills. Less experienced students benefit from the experience of their peers in 'communities of practice' (Lave & Wenger, 1991) and learning is 'situated' in an appropriate context (Brown, Collins & Duguid, 1989). The approaches support reflection *in* action and reflection *on* action (Schön, 1987), here applied in an online learning context. These approaches are based on the contention that the process of *giving* the feedback is particularly beneficial (Topping, 2010). Figure 4 illustrates the 'virtuous circle' of giving feedback in a 'studio' online environment, reflecting the Kolb (1984) experiential learning cycle with reflective observation and abstract conceptualisation occurring in a collaborative context. A similar model can be developed for peer feedback on student writing via a wiki.

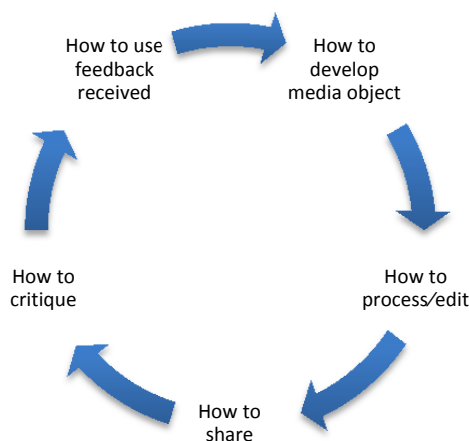


Figure 4 'Virtuous circle' of feedback in the 'studio' online environment

Future work

The proposed project will document and evaluate the approaches to online peer feedback discussed above: one using a wiki and the other using OpenStudio. The project will gather and analyse data to discover: What are the successful features of online peer feedback in terms of (a) engaging students (b) student learning? It will generate case studies, learning designs, and a 'toolkit' of guidance for using and assessing online peer feedback.

Design of the study

The first stage of the work will document uses of online peer feedback in Open University courses. For each course we will document:

- the intended learning outcomes of the peer feedback activities;
- what students are to share and to discuss;
- how the activities are used in the course assessment.

The second stage will evaluate use of online peer feedback in the three courses mentioned earlier. The evaluation will gather data from students, tutors and course team members. Data will be gathered anonymously from students via online surveys which include both closed and open questions. The discussion forums for each course will also be used to invite views on aspects of peer feedback. Data will also be gathered by examining the student-created artefacts and interactions stored within the wikis and the OpenStudio environment. Qualitative approaches (Creswell, 2003, pp190-197) will be used to analyse the online interactions and dialogues around the content.

Information to date

Information gathered from various sources before the start of the project suggests that students hold a range of views on the value of peer feedback. While students are able to use the guidance provided to give satisfactory feedback, it is clear that some students are more willing or able than others to make use of the feedback (Walker, 2013). The majority of students from all three courses appear to enjoy the experience of creating and sharing their work. However, some *Digital photography* students say they need 'expert' opinion rather than that of their peers, suggesting that some students have yet to be convinced of the value of peer feedback in their learning. The ability to evaluate the work of others and to give, and use, constructive feedback is important in the world beyond university. This project will help educators to support students in developing these skills.

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