Practice exchange

Enhancing feedback and feed-forward via integrated virtual learning environment based evaluation and support

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Over the last 15 years, the subject of feedback on assessment has come under considerable scrutiny in the literature, with a particular focus on the utility of feedback for subsequent assessment (i.e. feed-forward). Organisations such as the Higher Education Academy (HEA) have synthesised research on this topic into guidance for tutors through the Student Enhanced Learning through Effective Feedback (SENLEF) project (Juwah et al., 2004). However, the provision of advice on good practice in feedback for tutors faces a parallel challenge to the provision of feedback to students: 'it's only useful if it's used'. Creative use of technology has the potential to reconcile the requirements of high value feedback for students with university resource constraints. This paper outlines the use of the Grademark functionality within the Turnitin© software package to create a series of standardised feedback items, informed by principles of good practice advocated by SENLEF, that facilitate the process of feed-forward by web-linked integration into a custom on-line repository of constructively aligned skills based material.
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Conceptualising feedback and feed-forward

IN HIS DEFINITION of the term 'feedback', Sadler (1989) argued that in order for feedback to benefit the quality of student learning: 'The learner has to (a) possess a concept of the *standard* (or goal, or reference level) being aimed for, (b) compare the *actual* (or current) *level of performance* with the standard, and (c) engage in appropriate *action* which leads to some closure of the gap' (p.121). Thus the extent to which feedback can be used to benefit future assessment performance i.e. its 'feed-forward' (e.g. Duncan, 2007) assumes a critical role in its definition.

The importance of the utility of feedback has been embraced by the literature (Murtagh & Baker, 2009; Price et al., 2010; Wimhurst & Manning, 2013). Bodies such as the Higher Education Academy (HEA) have also synthesised extensive research on feedback into the Student Enhanced Learning through Effective Feedback (SENLEF) project (Juwah et al., 2004), which embeds feed-forward into its principles of good practice. However, despite such efforts, feedback remains a principle source of dissatisfaction for students in higher education (Bloxham, 2014; Soilemetzidis et al., 2014). Studies have indicated that feedback can be: difficult to understand (Weaver, 2006); lack specific advice on how to improve (Higgins et al., 2001) or be difficult to act upon (Poulos & Mahony, 2008). There exists a possibility that a principle reason for this limited success is that the literature on feedback and projects such as SENLEF are being confounded by the same fundamental challenge in communicating principles of good practice to tutors that tutors face when communicating feedback to students: i.e. 'the advice is only useful if it's acted upon'.

Reconciling feedback and resources. The need for high value feedback and sustainable practice

Research has indicated that a number of factors including time pressure (e.g. Chanock, 2000) and perception of student

recipience (Price et al., 2010) can be an impediment to the implementation of advice on good practice with respect to feedback. A clear example of this issue is implicit in the distinction made by Hounsell (2007) between 'low vs. High value feedback'. Low value feedback encapsulates practices such as: pre-occupation with superficial aspects of the work, e.g. errors in spelling and grammar; terse comments, for instance: 'this is unclear'; or the use of symbols to denote evaluative comments, such as: '???'; and comments that focus on describing the issues with a piece of work without suggestions on how to remedy them. In contrast, high value feedback focuses on the conceptual aspects of the work, such as the development of argument and is explicit and directive in terms of providing instruction on what can be done to improve any issues identified. Unfortunately, high value feedback requires considerably more staff resources to provide within a higher education landscape where larger student numbers, increased modularisation and end loading of assessment have become increasingly problematical (Carless et al., 2011). A key objective, therefore, lies not just in the promotion of good practice, but concomitantly ensuring that it mitigates potential barriers to its implementation.

Utilising technology to facilitate the implementation of sustainable good practice in feedback

There is precedent in the literature for technology facilitating attempts to implement assessment practice that might be too resource intensive by other means, especially when dealing with large cohorts (Heinrich et al., 2009; Hepplestone et al., 2011). This has been demonstrated with respect to quiz based assessment (e.g. McDaniel et al., 2012; Penn & Wells, in press). Research has also begun to examine how technology might be harnessed to enhance feedback on written assignments such as essays via the functionality of word processing software to provide standardised feedback comments that can

be used of part of a marker's repertoire (e.g. Denton et al., 2008). At the same time, contemporary literature has been examining how feedback can be constructively aligned with pre-defined assessment criteria or learning outcomes to address concerns with feedback that have been articulated by students, such as that it can lack specific advice on how to improve (Higgins et al., 2001) or be difficult to act upon (Poulos & Mahony, 2008). There is, therefore, an impetus and opportunity to use technology to audit and shape feedback in relation to the requirements of the assessment and to more general principles of good practice such as those postulated by SENLEF before marking occurs.

Arguments for using technology in the feedback process go beyond just the characteristics of the feedback, however. They also extend to facilitating student access to their feedback. In an insightful analysis of impediments to student engagement with feedback Winestone et al. (2016) postulated four psychological processes governing student engagement (awareness, cognisance; agency and volition) and emphasised that students often knew of appropriate strategies to make use of their feedback, but that interventions needed to support the students in turning that knowledge into action by making feedback seeking more accessible and encouraged. This is something that technology could also be of great help with, particularly when software used to provide feedback can be embedded into a virtual learning environment and integrated with sources of support on how to implement feedback i.e. nesting the feedback within a wider network of support (Hounsell, 2015). Turnitin© is an example of such software. Turnitin contains the Grademark interface that has a feature called 'Quick Marks' that allow the application of pre-specified feedback comments to specific points within the students' submissions that can be used by markers (in addition to their own comments) as and when appropriate. An elucidation of how the authors have used

this facility in conjunction with on-line skills provisions to reconcile the need for high value feedback with resource constraints will now be illustrated with respect to two key principles identified by SENLEF. The two principles selected have a particular emphasis on promoting feed-forward i.e. that good feedback: 'Helps clarify what good performance is (goals, criteria, expected standards) … and provides opportunities to close the gap between current and desired performance' (Nicol & MacFarlane-Dick, 2006, p.7).

Utilising Quick Marks to help feedback clarify what constitutes good performance

Understanding expectations with respect to assessment is an obvious prerequisite for student attainment. However, there is research that suggests that such expectations about marking criteria and assessment standards are not aligned between students and tutors (e.g. Rust et al., 2003) and that the magnitude of the discrepancy negatively correlates with performance on assessed work (Hounsell, 1997). Clarifying what constitutes good performance in feedback also assumes additional importance in terms of feed-forward into future assessments (Sadler, 2010). An obvious way of achieving this is to ensure that comments are tied to explicit marking and grading criteria such that they have some utility with respect to the development of a skill (such as using evidence) that can then be applied to subsequent assessment featuring the same criterion. This, however, is labour intensive and marker time and fatigue become limiting factors, especially in large cohorts. The authors have addressed this issue by postulating a series of Quick Marks for different levels of performance with respect to each of 7 marking criteria used in the assessment of essays: Academic Integrity; addressing the question; critical evaluation; quality of composition; structuring; standard of coverage; and using evidence. These Quick Marks can be inserted

into specific parts of a student's composition (denoted by a coloured symbol) or attached to highlighted text. The comments expand from their symbol denotation only when the mouse is rolled over them so as to aid legibility by reducing the conflict between the feedback and the composition. This is an important factor in students' comprehension of their feedback (Sadler, 2010) and can be very hard to achieve with paper based marking. Furthermore, Quick Marks are titled and categorised with respect to the marking criterion to which they relate so tutors can easily locate relevant comments. Consider the following example of a Quick Mark pertaining to an essay marking criterion called 'using evidence' that could be inserted into a student's composition via one mouse click.

'**Unconvincing evidence:** This text contains evidence of dubious reliability. In an academic piece of writing, you should be referring to peer reviewed sources (e.g. published journals, books, conference proceedings etc.). You should consider the reliability of the source when using website based material (e.g. Wikipedia), as this is often not peer reviewed and the authority/ qualifications of the author can be unclear. You should also avoid using anecdotal evidence; experience is not a substitute for empirical investigation. For additional help and advice on this go to https://moodle.uel. ac.uk/mod/page/view.php?id=66161'.

In this example, the comment is explicitly tied to the relevant marking criterion, the issue with the work is explained with respect to that criterion and what constitutes good performance is clarified, all with very little time investment from the marker.

Embedding URL links within Quick Marks to additional sources of on-line support to facilitate the feed-forward of tutor comments

Research indicates that students often need help to facilitate their efforts to make use of their feedback (i.e. feed-forward)

and that the absence of such instruction can have a deleterious effect on their engagement with feedback (e.g. Doan, 2013; Weaver, 2006). Carless et al. (2011) commented that this need has become more pronounced in recent years owing to the expansion of higher education, and the shift of the timing of the assessment towards the end of modularised courses. Indeed, students have indicated a preference for feedback delivery on a one-to-one basis in a dialogue with tutors (Murtagh & Baker, 2009) and conceptualising feedback as more of a dialogue has been advocated by research (e.g. Nicol, 2010). However, resource limitations make providing this level of support problematical (Hounsell et al., 2008). This limitation is particularly salient in modules featuring large cohorts and several assessments.

An alternative approach to one-to-one tutor based follow up on feedback is to support students in being proactive in feed-forward via the provision of resources on the implementation of comments on their work i.e. nest the feedback within a wider network of support (Hounsell, 2015). The authors have achieved this by embedding web-links within Quick Marks to provide direct and immediate access to constructively aligned additional learning materials/ guidance on interpreting feedback online. Each Quick Mark postulated for essay feedback contains a URL to a corresponding help video located in an essay writing guides section of an extensive on-line study skills repository within Moodle. If the reader refers to the example Quick Mark on using evidence given previously they will see that it concludes with a URL link to a video in the skills repository on help with using evidence. This video contains a delineation of the using evidence criterion, action points on how to satisfy this criterion and examples that invite students to identify whether they are exemplars of good or bad practice with respect to this criterion. Each video contains the kind of action points

and model responses/exemplars advocated by Nicol and MacFarlane-Dick (2006) to facilitate students closing the gap between their current level of performance and the desired level of performance.

Quick Mark and VLE integration: some concluding comments

A concern with the use of Quick Marks is that students might perceive feedback that is devoid of any non-standardised comments from the marker as 'impersonal'. There is research to suggest that students are less inclined to deal with feedback that is deemed generic i.e. not specific to the student (e.g. Doan, 2013). However, it is important to clearly distinguish between the terms 'generic' and 'standardised'. A series of appropriately used and placed standardised comments that reflect the strengths and weaknesses of an individual's work is not generic feedback. In contrast, non-standardised comments that are either not specifically tied to the contents of individual work, or which seek to characterise the cohort's performance as a whole is generic feedback. It should be noted that the authors are not advocating the use of Quick Marks to the exclusion of individual comments. Indeed, there is the facility for a marker to insert their own comments or append Quick Marks to expand or clarify the points being made and give feedback the personal touch advocated by authors such as Hounsell (2015). Conversely, it could be argued that pre-specified comments are more conducive with avoiding idiosyncratic marking practices, such as errors in student compositions being attributed to personal failings, which can be deleterious to feedback (Shute, 2008; Värlander, 2008).

Evaluation of student and staff perception of the integration of Quick Marks with VLE based support is clearly warranted. In the interim, this paper postulates that there is a strong evidence-based pedagogical argument for the utility of this approach in: facilitating the implementation of good practice

in giving feedback for staff; reconciling the need for high value feedback with resource constraints; and promoting feed-forward of tutor comments in student compositions.

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