



HAS THE GIVEN FEEDBACK BEEN EFFECTIVE ? TECHNOLOGY BASED FEEDBACK AN IDEAL ALTERNATIVE

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ABSTRACT

Feedback is a crucial element in the learning process and it can be quite challenging to provide the feedback upon which students can act upon to improve their learning. Providing proper feedback in contemporary educational environment is challenging. Most of the Lecturers are continuing the traditional form of feedback, which is often unable to satisfy students in improving their learning experience. It's time to re-think about the feedback process. This article focuses on some of the technology-backed feedback to enhance student's learning experience.

INTRODUCTION

Teacher's feedback about student learning is essential for students and an integral to teaching, learning and assessment. It helps learners to maximise their potential at different stages of learning, raise their awareness of strength and areas for improvement and identify actions to be taken to improve performance. Feedback redirects or refocuses either the teacher's or the learner's actions to achieve a goal, by aligning effort and activity with an outcome.

Feedback has a significant effect on student learning and has been described as "the most powerful single moderator that enhances achievement" (Hattie 1999). It helps students understand the subject being studied and gives them clear guidance on how to improve their learning.

Bellonet alstate, "academic feedback is more strongly and consistently related to achievement than any other teaching behaviour.... this relationship is consistent regardless of grade, socio economic status, race, or school setting.

According to (John Hattie, 1999), "The simplest prescription for improving education must be dollops of feedback".

Promoting student learning in Higher Education (HE) has recently become a concern among educationists. Research into feedback practices has found that students and teachers find feedback practices vastly unsustainable, de-motivating and without much opportunity for improvement. The traditional form of feedback has often failed to satisfy the students in improving their learning experience. It's time to change the feedback process from traditional approach. This article investigates technological backed approach of providing feedback and enhancing student learning experience.

According to National Survey conducted in the UK (Higher Education Funding Council for England, 2011) and in Australia (James, Krause and Jennings, 2010) asserted feedback as a difficult issue in Higher Education, though acknowledged as an important element in improving the learning process. According to (Ferguson, 2011), feedback is crucial approach to facilitate students' development as an independent learner in order to monitor, evaluate and regulate their own learning.

As Eraut (2006) comments. "When students enter Higher Education....the type of feedback they



receive, intentionally or unintentionally, will play an important part in shaping their learning future. Hence we need to know much more about how their learning, indeed their very sense of professional identity, is shaped by the nature of the feedback they receive, we need more feedback on feedback". (pg. 118)

Feedback is valuable when it's received, understood and acted on. How students analyse, discuss and act on feedback is as important as the quality on the feedback itself (Nicole, 2010). Having said that, large number of student surveys across the globe have also narrated student dissatisfaction with the feedback they receive on their course works (Nicole 2010).

Citing feedback like "Great Job!", "A Good Attempt", doesn't tell the learner what is right and likewise a statement, "Not quite there yet", "Need improvement", neither gives any insight into what is wrong and how to do better in the next attempt. Instead, researchers suggest taking the time to provide learners with information on what exactly they did well and what may still need improvement. They also note that it can be helpful to tell the learner what he is doing is differently than before.

Researchers generally describe current feedback practices as lacking in detail, difficult to understand, ambiguous or simply unusable. Students claim a lack of adequate, timely feedback and their teachers claim that students fail to apply the advice given (Janice Orrella, (2006).

Keeping the key issues in mind, the following are some strategic choices that impact the effectiveness of the feedback:

○ **Have students been clarified what good performance means (goal, criteria, standard)?**

To give students an opportunity to engage actively with goals, criteria and standards before, during and after the task. Students can only achieve a learning goal if they understand that goal, assume some ownership of it and can assess progress (Sadler, 1989; Black and William, 1998). In Higher Education, there should be a reasonable degree of similarity between the goals set by students and goals originally set by teachers. This is vital as it provides basis for the students goal that serves as the criteria for self-regulation. But number of research evidence shows a significant mismatch between tutors' and students' conception of goals and of assessment criteria and standards (David J, Nicol and Debra M Dick, 2006).

○ **Have students been facilitated in the development of self- assessment in learning (self-learning)?**

Over the years, there has been growing interest in understanding the strategies that encourage students to take a more active role in the management of their own learning or self-reflection of learning (Nicol, 1997). Research have shown that direct involvement by students in assessing their own work, and frequent opportunities to reflect on goals, strategies and outcomes are highly effective in enhancing learning and achievements (McDonald and Boud, 2003). An effective way to improve self-regulation process to provide students with the opportunities to exercise regulating characteristics of their own self-learning to reflect on that practice.

○ **Have students been delivered high quality feedback that enhances their learning?**

Good quality external feedback is defined as an information that helps students trouble shoot their own performance and take action to close the gap between intent and effect. The teachers are source of external feedback and have a vital role to play in enhancing the students own ability in understanding the self-regulation process. Feedback needs to be relevant to the task in hand and to student's needs. Therefore, providing quality information is important to ensure students learning.

○ **Have students been given opportunities to act on feedback?(to close gap between current and desired performance)**

The feedback can provide the students with the opportunity to close gap between current and desired performance of the student and the goals set by the teacher. If the student does not act immediately on the feedback received then this is a missed opportunity. As (Boud, 2000) states:

"The only way to tell if learning results from feedback is for the students to make some kind of response to complete the feedback loop (Sadler, 1989). This is one of the most often forgotten aspects of



formative assessment. Unless students are able to use the feedback to produce improved work, through for example, re-doing the same assignment, neither they nor those giving the feedback will know that it has been effective. (Boud, 2000 pg.158)

○ **Have student been provided encouraging and inspiring feedback to uplift motivational and self-belief?**

Motivation plays a crucial role in learning. Studies on motivation and self-esteem are significant as they aid students to understand self-regulation, where often fail. Research has shown that that external feedback can have positive or negative effect on motivational beliefs and on self-esteem. It influences how student feel about themselves which affects what and how they learn. Studies have shown that high stakes summative assessments (where marks or grades are given) can lower the motivation to learn (Harlen and Crick, 2003), such assessments encourage students to focus on performance goals (passing the test) rather than learning goals (Elliott and Dweck, 1988).

○ **Have an opportunities been allowed and encouraged for teacher and peer dialogue around learning?**

Feedback from teachers and peers provides additional information that aids students to reassess their understanding and belief. Teacher's feedback providing an external source against which students can evaluate and self-correct their progress and their own internal goals. Feedback as a dialogue means that the student will not only receive a written feedback but will also have an opportunity to have discussion about the feedback at a later time. An approach that increases the value and effectiveness of feedback and is likelihood the information provided is understood by students to conceptualize feedback more as dialogue rather than as information transmission (David J Nicol and Debra M Dick, 2006).

○ **Has the feedback been effective in providing information to teachers that can be used to help shape the teaching practice?**

Good feedback practice does not only provides good information to the students about their learning performance but also offers good information to teachers as well. This eventually improves the learning experience for the student. As (York, 2003):

The act of assessing has an effect on the assessor as well as the student. Assessors learn about the extent to which they (students) have developed expertise and can tailor their teaching accordingly (York, 2003 pg.482)

While providing relevant and informative feedback in meeting the student's expectation, the teachers themselves need to have fair ideas about the student's progression. They eventually get so involved in the process of reviewing and reflecting on student's performance which drives them to make better learning environment.

○ **To what extend do learners have choice in the criteria and timing of learning?**

Often it has been observed that teachers overburden students with feedback. According to (Brinko 1993; Ende 1983), modern day lecturers need to understand that they should limit the amount of feedback they're providing. Overload of feedback results in meaningless to students. They should limit the number of criteria to the most important aspect of course work and provide feedback on them (Saddler, 1985).

○ **Have learners been involved in the decision making process?**

Pennekaker states, "Students must be given access to information about their performance. At the broadest level, students need to know if they actually have mastered the material or not. Giving them information about the way they are studying, reading, searching for information, or answer questions can be invaluable".

When students have easy access to information, they develop an awareness of their learning, able to easily recognize their mistake and eventually develop strategies for tackling the mistakes.



Technology Supported Feedback

The process of using technologies to create assessment feedback (also known as multi modal feedback) can be efficient and user friendly alternative to written comments or face-to-face discussions. In recent report and publications (Nicol, 2009; Jisc, 2009; Gilbert, Whitelock and Gale, 2011; Hepplestone et al 2011, Ferrell, 2014; Jones and Kelly, 2014; Jisc, 2015) have highlighted potential affordances of technology in relation to supporting feedback practices.

❖ More feedback at a faster rate

Technology supported feedback has the potential to provide a greater volume of timely feedback to large cohort or group of classes (Gilbert, Whitelock and Gale, 2011; Fervell, 2014; Jones and Kelly, 2014)

The use of institutional VLE (Virtual Learning Environment) such as Moodle or Blackboard, can drastically reduce administrative work load associated with the collection of students work and return with feedback via VLE (Gilbert, Whitelock and Gale, 2011; Carless, 2015)

Furthermore, technology enabled feedback tools, such as online rubrics, predetermined comment bank for tutor's use have potential to reduce the "unproductive" (Krieg, Sharp and Cambell, 2004) manual work associated with feedback production and dissemination (Happlestone et al. 2011, Jisc, 2015)

The application of tools such as Classroom Response System (CRS) is an effective method to provide immediate feedback to students in large cohort. (Beatty, 2004; Frederickson and Ames, 2009)

❖ Improved Student Understanding of, and Engagement with, Feedback

Audio and audio-visual formats are one of the methods to support comprehension of, and engagement with feedback (Jisc, 2009). Classroom Response Systems (CRS) can support student engagement concerning feedback, more particularly with large cohorts. Technology enabled adaptive release of grades and feedback encourages student engagement with feedback, and has shown marked increase in the value of feedback received by students (Hepplestone et al., 2010; Irwin et al, 2013; Jackson and Marks, 2015).

❖ Variety in Format and Approaches

The use of technology can add variety to the provision of feedback. Technology can support provision of feedback from variety of sources other than teachers for example via automated. Such as audio and audio-visual feedback may more accurately reflect, the tutor's intended message than written feedback (Rotheram, 2009; Hennessy and Forrester, 2014). Furthermore, screencasts can provide feedback via the inclusion of visual elements (Haxton and McGarvey, 2011; Marrriott and Teoh, 2012; Robinson, Loch and Croft, 2015)

❖ Opportunities for Dialogic Feedback

Technology via digital tools can enable both formal and informal peer dialogue and feedback, both within and outside the classroom setting (Gilbert, Whitelock and Gales, 2011; Jones and Kelly, 2014)

❖ Greater Flexibility of Feedback and Accessibility

Technologies such as VLE allows all of student's feedback to be stored in one location, which increases the likelihood of students revisiting it and applying it to future work (Hepplestone et al. 2011; Carless, 2015, Jisc, 2015). Thus technology supported feedback enhances flexibility and accessibility by providing instantaneous feedback to students wherever they are, and may further be useful for students on placement.

SOME TECHNOLOGY SUPPORT FEEDBACK TOOLS

● Technology enabled written feedback

With the growing use of digital technologies in HE there is marked increase in the ways that teaching staff can provide written feedback to students (Jisc, 2009; Ferrell, 2013; Jisc, 2015) Word-processing software facilitates the typing of comments in a document and can also include review features such as track changes, comments, bubbles, notes (Crossouard and Pryor, 2009). Furthermore, tools like textbox,



highlighter, comment box and pen available in Portable Document Format (PDF) editor can be utilised to provide feedback by annotating PDF files.

In VLE via Moodle assignment activity, Blackboard assessment, allow all graders to provide either to enter new comments, choose a comment from standard comment banks, or create their own banks of comments by inserting at an appropriate and specific position in the text of the course work.

● **Audio and Audio-Visual-Feedback**

Engaging the visual and auditory senses have demonstrated to enhance student learning (Myer and Moreno, 2003)

Audio feedback is a recording of aural feedback on students work, technologically referred as "Podcast". Podcast is a digital media file that plays audio, is made available from the website and can be opened or downloaded from the website and played on a computer or other devices. (Salmon, 2008:20)

Audio-visual feedback is combination of both aural and visual features, such as a video of a teacher communicating feedback to a student, or a group of students, or a "screencast" that combines audio feedback with visual annotation to a student's work. Screencast typically include a video recording of the computer screen while the marker uses the cursor to point to examples, makes edits, highlights or annotates sections of the individual student's work while simultaneously audio recording the marker's voice as they talk about the student's work. (Henderson and Philip 2014:5)

The use of the teacher's voice brings informal emotional feeling and more conversational way than written communication, and the use of tone, expression, and emphasis allows the nuance often lost in written feedback to be retained and transmitted, thus supporting students to better understand and engage with, feedback (Ice et al. 2007; Merry and Orsmond;2007; King, McGugan and Bunyan 2008; Middleton, Nortcliffe and Owens 2009; Rotheram 2009; Hennessy and Forrester, 2014)

● **Peer Feedback**

A number of digital tools are now available that offers opportunities to students to provide both formal and informal formative feedback on each other's work. Peer feedback involves students, usually single peers, using pre-specified criteria to assess their peers and assign marks or grades, often providing additional written feedback to that given by the tutor (Ashenafi, 2015). This type of peer review is now facilitated through standard feature of all VLE. In addition VLE also supports in-task peer feedback through asynchronous discussion forum (Gikandi and Morrow, 2015).

● **E-Portfolios**

An e-portfolio is a student-created "collection of digital artefacts articulating experiences, achievements and learning" (Jisc, 2008:6). It provides students with a personal repository to store artefacts and reflection throughout their learning experience. This can be later used as an evidence of learning to tutors or potential employers.

● **Automated Feedback**

Online quizzes in variety of formats such as Multiple-choice, true or false, yes or no, matching, ranking and fill-in-the blanks are used for both formative and summative assessment as well as for the provision of automated feedback (Bull and Danson,2004; Gilbert, Whitlock and Gale 2011; Ferrell, 2012). Online test can afford greater flexibility to learners, since they can be assessed at any time and location of the student's choosing (Nicol, 2007; Jisc 2009). It also provides an opportunity for self-regulation since feedback is immediate learners can rapidly identify, and seek to correct, misconceptions (Jisc, 2009; Jisc 2015)

● **Classroom Response System**

It is also referred to as "audience response system", "personal response system", "learner response system, and "polling technologies", enhances interaction and feedback in large lecture-based classroom. Colloquially referred "Clicker", an individual handheld clicker devices that allow student to answer questions electronically and get immediate feedback on their own, as well their peer's responses while in



the classroom. In recent years, use of smart phones and devices has resulted in development of multiplicity of app which offers a broader range of responses that students can use using their devices. Clickers can make it easier and faster to collect, real-time student responses, and in doing so, the lecturer is able to offer immediate feedback regarding obvious errors and incorrect responses, and can take “just-in-time correction action”. (McLoone, Villing and O'keeffe 2015:2072). It can also allow tutors to identify “students at risk” (Beatty, 2004).

CONCLUSION

This article highlights on providing an effective feedback process in Higher Education. It suggests a shift of focus from traditional method to more modern technology based approach, which is faster, flexible and engaging providing variety of formats and approaches. Giving feedback is an important skill for lecturers in Higher Education and has a major influence on the quality of the students' learning process (Hattie and Timperley, 2007).

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