

Feasibility Study for Empowering the System of Assessment and Feedback in Higher Education to Enhance Achievement

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ABSTRACT: The method of assessment is the most important part of the education process to help learners progress from one-step to another. Assessment is about measuring student learning; it is about diagnosing misunderstandings in order to help students to learn more effectively [29].

Assessment and feedback are considered the key principles of the learners' lives; they reflect the integrity of the learning and teaching. The learners become more self-reflective when a process of assessment and feedback supports their achievement. Assessment and feedback are intended not just to test the learners' knowledge, but also to help them develop their knowledge, skills and confidence. Assessment can be in the form of written or oral responses, interviews, quizzes, tests, workbooks etc. Scouller found that learners were likely to employ surface strategies in a multiple-choice (MC) format [31].

This study aims to consider the impact of learners and Higher Educational Institutions (HEIs) on assessment methods and practice. The study also shows how these methods can be affected by the feedback practices. The paper admits that contemporary experiences of assessment and feedback have shown great achievements in the area of teaching and learning. Engaging assessments emotionally and/or cognitively encourages students to spend time on the assessment task. The paper emphasises that the feedback should hold these attributes: Timely, Personal and individual, Articulate and Developmental, Manageable and Empowering.

KEYWORDS: *Assessment, Feedback, Exam, Education*

I. INTRODUCTION

Education shapes people's minds and characters. The perceptive way of looking at our life is the result of education. Education is a combination of multistep systems, which helps people to gain and translate knowledge to skills. To be qualified skilled people, we must pass successfully through the process of education. The Higher Education Academy (HEA) states that assessment is an action that shows the educators their learners' improvement and the change from what they are into what they will become by means of their teaching. Therefore, "Learning and assessment should be integrated and fully aligned" [21]. Assessment should provide feedback on performance in a way that contributes to students' learning [30].

II. ASSESSMENT, ACHIEVEMENT AND QUALIFICATIONS

Reviewing and underpinning a wide body of literature, e.g. Biggs, Ramsdon and Taylor shows:

1. Assessment and feedback are used by educators to measure the extent and depth of learning taking place during the development of students' learning (formative); and to ultimately compare students' abilities against a given standard (summative).
2. To ensure sustainability and enable reliability of assessments, Teaching Objectives (TOs) with the help of learning outcomes must be designed and analysed to establish appropriate assessment and feedback techniques.
3. The level of learning is written in terms attributable to Bloom's 'Taxonomy of Educational Objectives' which aims to develop a system of categories of learning behaviour to assist in the design and assessment of educational learning.
4. The aim of the Assessment Analysis is to articulate the method by which each TO, module and learning outcome is to be assessed and effective feedback is given.
5. For each assessment, students should be provided with clear details of the nature of the task, associated assessment criteria and any other relevant information. They will be detailed in the assessment specification (ASpec) and will inform assessors of:

- a. assessment number and title
- b. programming of assessment
- c. type of assessment
- d. duration of assessment
- e. TOs and critical EOs to be assessed
- f. marking details
- g. assessment criteria
- h. consequences of not meeting the assessment criteria

The aim of the curriculum review is to enable the educators to be more flexible and to teach in innovative and creative ways. The quality of teaching, the challenge and inspiration which can come from educators' commitment and enthusiasm will be critical to achieving the educators' aspirations for all students [1, 25]. Assessment needs to fit the purposes of the learning, using techniques which are well chosen to support learning, inform planning of the next steps and give a good basis for reporting on progress.

Assessment and feedback are considered an important part of the students' lives; they reflect the integrity in learning and teaching. The students become more self-reflective learners when a process of assessment and feedback supports their achievement. We aim to ensure that the learners have the ability to self-assess as well as peer assess and to use outcomes in connection with assessment feedback to improve their performance. Assessment for Learning supports the curriculum in developing the educators' skills and understanding of how to use assessment and feedback to support learning [25]. Teachers using assessment practices which involve high-quality interactions based on thoughtful questions, careful listening and reflective responses help students to achieve their aims and to develop their learning and thinking skills. An effective and efficient assessment – feedback system uses summative and formative assessments can support and enhance the benefits of an improved curriculum. From a student's first day in the university, recognising achievement is an important part of learning and future development. For various reasons, students could lose motivation and become at risk of dropping out. In the first year of university, students experience an emotional roller-coaster which transcends many aspects of their lives [16]. Therefore, the timeliness, quality and nature of feedback are perhaps the most critical factors in approaching the learner [26].

Assessment and feedback are designed not just to test what students know, but to help them develop their knowledge, skills and confidence. The terms of assessment and feedback refer to a general description of learning. The assessment processes are designed to embody the underlying principles of:

1. Sustainability: measures what it claims to measure. It is about setting out to measure - students' achievement of the intended learning outcomes [26]. Sustainability is also associated with assessing at the correct level, effective learning outcomes, marking criteria and a given constructive feedback.

2. Reproducibility: is a consistent and accurate approach to the way evidence is gathered and judged. It is important because assessing students' work is the most significant thing educators do. David Boud said, "Students can escape bad teaching, but they cannot escape bad assessment" [11]. Educators must demonstrate that they are being consistent and fair, and that each mark is accurate and realistic. Thus, a powerful constructive feedback supports the given grade.

3. Feasibility: Assessment is practicable and cannot act as an impediment. Lecturers have to make sure that students know how assessment works. They have to know what educators are looking for in an excellent answer or piece of work to reach a pass mark. In other words, students are in need of the educators' help to check that what is being assessed proves their achievement of the learning outcomes, which act as goalposts for their study [28].

4. Manageability: is capable of being managed or controlled. In fact, there are too many assessments, and, as a result, there is a strong pressure on both the student and the lecturer. We have to have a smooth-running assessment of high quality that shows we are assessing (making judgements on important issues) and not only marking (basically ticking off common issues). For assessment to work fairly, students should not be overloaded with many assessments. With too many assessments, students are pushed into surface-learning mode, learning just for the exam or assignment, and then forgetting rapidly. Moreover, educators must concentrate on emotional engagement, so they really appreciate that emotions could last for a sustained period of time and have a long-term effect upon students' learning [15, 16]. Such emotions can either obstruct or stimulate learning by affecting attention deployment, memory and problem solving performance [12].

Credibility: We need to ensure that students have not copied their work from the web. With the internet revolution and word processing, learners can download ready-made articles and copy elements from these into

their own work. Plagiarism is becoming one of the very common problems that lecturers are facing with each piece of coursework nowadays [18].

- Based on what has been mentioned above, the educational institution is committed to:
- encouraging the active engagement of students in their own learning
- supporting and facilitating assessment activities to improve students` learning
- providing assessments that are accessible and inclusive
- ensuring that students receive timely, meaningful feedback to progress their learning
- supporting departments and course staff in enabling them to develop appropriate and innovative assessments and powerful feedback
- ensuring that assessment is linked to TOs, modules and learning outcomes

However, educators of HEIs use many methods for evaluating and improving the quality and standards of teaching and learning these attributes are driven from different sources, e.g. [6,7]:

- **Staff/student liaison:** it encourages the mechanism of feedback and feed-forward by obtaining student feedback and communicating action taken in response to feedback [26]. Encouraging comments reinforce positive reactions as well as moderate the effect of negative comments [17]. As a matter of fact, educators should also be more open to feedback from their students. It reflects the fact of where they are and where they have got it wrong [29]. Feedback is an interactive two-way process, not just teachers writing brief comments on assignments or on exam answers that the students never see anyway.
- **Industry feedback:** is defined as learning-by-doing. It helps students approach work by increasing the practical tasks and attaching assessment; such work has more earnest and critical value. In many areas of physical sciences, practical work is important in developing the focus on understanding the process of scientific investigation and establishing an ultimate understanding of scientific concepts [26].
- **Course questionnaires, teaching feedback questionnaires:** are generally more applicable to the assessment of knowledge evidence. Assessment can be written or oral responses, interviews, quizzes, tests, workbooks etc. They are important for both the educator and the students as they show the daily development of the students` concepts and thoughts. The students can get swift verbal feedback from the lecturer based on the answers. Scouller found that students were likely to employ surface strategies in the multiple-choice (MC) format [31].
- **Peer observation and feedback:** It is an informal assessment to support the effective teaching programme and may be useful for:
 - supplying an additional source of feedback in addition to student feedback
 - supporting a community of students and educators
 The most important of peer observation is the existence of a discussion afterwards to exchange ideas and feedback about educational strategies, group dynamics and time management [25, 32].
- **External examiner's feedback:** This enables the external examiner to form a view about whether the internal marking has been carried out so as to strictly judge students' performance against the university's standards, and against the sector's threshold standards as described in the framework for higher education qualifications in England, Wales and Northern Ireland [2, 22]. The report is a part of the HEI's quality assurance procedures. It is one of the most significant reports that will be published as a public document within the HEIs, QAA auditors and other professional bodies.
- **Annual academic evaluation feedback:** This report is useful for the university`s achievement to:
 - Prove that the process of evaluation has been undertaken comprehensively.
 - Agree that the action plans for enhancement programme are satisfactory.
 - Confirm the requirements of an annual monitoring report are met.
- **Link tutor liaison:** To develop stronger links between students and the department, apprenticeship/civilian attachment, tutors should be able to visit the university or the site work to speak to students. This could be face to face feedback or a final report generated by the trainer at the end of the training course.

For all educators to get better results, achievement and powerful feedback; these suggestions are driven from [26]:

Setting Exam	Marking Exam
Don't set the exam on your own	Be realistic about marking.
Get help from one or two colleagues to work out the questions.	Implement a soft and realistic system of tackling the marking.
Review the learning outcomes carefully before setting up the exam questions.	Avoid being biased in some answers.
Try as much as possible to write short sentences.	Don't be prejudiced
Don't assess the same criteria many times	Have regular breaks and keep alert

Including data information will reduce the emphasis on memory.	Take into account the second markers from a moderator
Check the timing.	Follow the department/school policy
Work out what is really being tested.	Keep up-to-date with the policy of marking, second marking and moderating.
Plan a tight marking scheme.	
Re-read the questions carefully.	

III. PERSONAL FEEDBACK PRACTICES

Hattie suggests that the nature of feedback is not just teachers giving information to students about their performance [20]. The feedback plays a central role during the learning journey of the students. Bellon states 'academic feedback is more strongly and consistently related to achievement than any other teaching behaviour this relationship is consistent regardless of grade, socioeconomic status, race, or school setting' [5]. A range of assessment methods and techniques are used by the teaching staff and these are evident especially when the University's external examiners inspect and evaluate the students' work and teaching material.

The different techniques allow the students to excel in specific assessments. If all assessment methods were the same, e.g. phase tests or reports, then students would soon become attuned to just remembering facts rather than research and applying analysis to problems. In this respect, differentiation definitely takes place. In an integrated system, all aspects of teaching and assessment including feedback are tuned to support high level learning [6].

Teachers' feedback not only has a significant effect on learners' expectations of success but the feedback has been linked to competence development [7]. Some studies, e.g. [20] do argue that powerful feedback for the first year university students can support the transition to higher education and may aid student retention. This is controversial as some studies show that the feedback has not that big effect on the students' learning [3, 31]. Quite often feedback is facilitated by academic lecturers via a monologic transmission process, in the hope that the student will utilise this and improve in their next assessment [19, 29].

All these feedback forms have advantages and disadvantages. Educators should find the best ways to obtain feedback in assessment contexts, learning and teaching. Practically, the most useful feedback contains both positive and negative elements. The positive feedback is the most powerful feedback because it motivates belief in future success. In addition, it improves a student's confidence, enthusiasm and self-esteem [28]. As a matter of fact, positive feedback holds, implicitly, a kind of praise. Some people, like the Chinese, give more attention to effort than success or failure. This explains why Chinese learners do very well during their international journey of study in comparison with Westerners [35]. Therefore, students have to be more adaptable at making the most of positive feedback received by them no matter whether from known or unknown people.

On one hand, the word "negative" refers to unfavourable or unfortunate. Too often, feedback focuses on failings rather than developments, and saps students' confidence levels. On the other hand, the word "critical" or "constructive" has been found more acceptable for feedback elements which not only contain affirmation and praise [26]. In some cases, when receiving disagreeable feedback, people become defensive instinctively and repeat tactics that they have had a great success with in the past. Thus, when we fear someone's reaction, different techniques must be adopted to make the other person act differently. Human beings are frequently not able to adapt to make best use of feedback that is critical [4, 10]. Teachers usually adjust their teaching methods to satisfy the needs of a variety of students. On some occasions, they regulate teaching to suit different emotional styles. Teachers note that more vulnerable students need help in developing greater emotional competency [24].

Generally speaking, feedback to students can be divided into two categories:

- written (handwritten) comments on students' achievement
- Face-to-face feedback, where a lecturer discusses students' work, individually or in a group.

Although these two methods are conventional, in many disciplines communication and word-processing technology has expanded tutors' methods of giving students written feedback.

- Emailing feedback: this can be given directly to the students to read the feedback in privacy on their computers. However, some students could argue that this kind of feedback appears less personal [33].

- Overall feedback collection: the tutor can electronically post on a board where the whole class can view the common collection of frequent errors and difficulties. The tutor can also email it individually to each student with any specific additional feedback.
- Assignment return sheet: it systematically enables mapping the assessment criteria for the assignment, intended learning outcomes and tutors' feedback comments to students [26].
- Model Answers: these can be self-explanatory to students, letting them compare their own work with the model answers and check what they have got wrong. Unfortunately, due to the fact that model answers are relatively impersonal, some students may not really bother comparing their own solution to them [27].
- Lecture Feedback: is a good tool for the tutor to cover all the most important points and at the same time to assess the tutor's performance during the lecture. It measures not only the breadth of the students' development, but also allows students to compare their own work with their fellow students [7].
- Electronic Feedback: Teachers could use the 'track changes' facilities in word-processing software to edit electronically submitted reports. Basically, looking at the colour changes in their work or by using the "Add-Comments" command which enables the teacher to add feedback [26].

IV. ATTRIBUTES OF EFFECTIVE FEEDBACK

The teacher should not only evaluate and praise/criticise the work of the students. Since we agreed that feedback has a goal, it is important to know the actions required to achieve that goal. Therefore Feedback should have basic characteristics:

1. **Timely** – It is well known that “**the sooner the better**”. After many pieces of research have been carried out by universities, feedback should be received no more than two days later. Tutors can also do it straightaway with the help of computer-aided learning or in face-to-face meetings. It is effective when the feedback is returned to the students quickly, as they can still remember how they addressed the task [7, 8].
2. **Personal and individual**. Based on the Bologna Process 2010, feedback is supposed to suit each student's achievement and personality. In order to let students assess their own performance, it is advised to let them fill in a self-assessment sheet completed against the assessment criteria. Another useful task is to let them decide what areas they would like the formative feedback to focus on. Feedback provides information to learners about where they are in relation to their learning goals so that they can evaluate their progress, identify gaps or misconceptions in their understanding and take remedial action. Generated by lecturers, assessors, peers, mentors, supervisors, a computer, or as a result of self-assessment, feedback is a vital component of effective learning.
3. **Articulate and Developmental**. Whether the feedback is congratulatory or critical, students should be able to make sense of the teacher's feedback. Clear feedback will need to show students what they need to work on next time. Learners should have the opportunity to discuss the comments on their work one-to-one with the assessor [7]. To avoid a breakdown in the communication between educators and learners, incompetent critical words as 'weak' or 'poor' must be not used. Equally, affirmative words such as 'excellent' can cause problems for the next work if the feedback is only 'very good'. Thus, it is better to praise giving detail about exactly what was very good or excellent.
4. **Manageable**. Depending on the size of the class, designing and delivering feedback to students could take a long time and consume a lot of energy. From the students' point of view, getting too much feedback (tedious) leads to a loss of focus on identifying the most important points from the routine feedback and this could reduce their opportunity to benefit from the pertinent points [14, 24].
5. **Empowering**. The feedback should strengthen and consolidate not dampen learning. Therefore, assessors need to be attentive when writing critical feedback to recipients. A more general argument along these lines is that conventional assessment disempowers learners, whereas education is about empowering learners and assessment can be made to play an empowering role [9, 23].

V. OPTIMISING LEARNING THROUGH FEEDBACK

The aim of the following suggestions, adapted from different authors, e.g. [26], is to optimise the learning payoff caused by teachers' feedback to students.

1. Prior to work submission; provide students with the most common feedback comments given on similar previous assignment.
2. It is advisable to have feedback comments on students' assignments prior to receiving the mark.
3. Give feedback on students' work and not on their personalities.
4. Ensure students have a positive attitude after receiving your feedback.
5. Encourage students to add a comment to your feedback.

6. After receiving the feedback, encourage students to send you an email, focusing on their feelings.
7. It is important for students to know exactly what they should do after having the feedback, e.g what they must continue working on and start concentrating on.

VI. SUMMARY AND CONCLUSION

The equilateral triangle diagrammatic representation shows how the approach for establishing powerful, trustworthy and reliable assessment can be designed. The systematic approach is applied to any design course or curriculum.

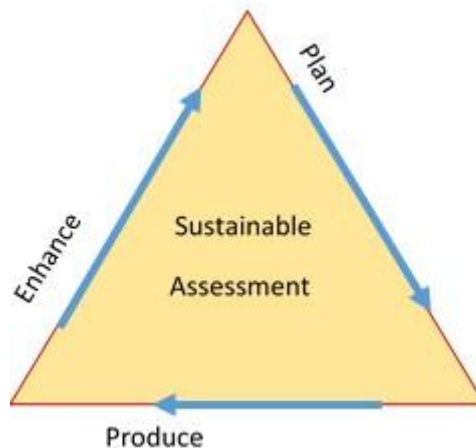


Figure 1. Design process of sustainable assessment.

The design consists of three equal sides which play significantly on the students' attainments:

1. **Plan:** Recognising the goal of the assessment could help answer the following question. "How well my students have they learnt?"
To answer this question, there are three key factors which the assessors should be clear about; who, what and how.
 - (a) Who are the students, their prior achievements and level of education?
 - (b) What should be assessed, the timing, place and weighting of the assessment?
 - (c) How can the assessment best be achieved?
2. **Produce:** To produce a meaningful assessment, educators should be clear about; why, what and how.
 - (a) Why should the students be assessed and which part of the TOs?
 - (b) What is behind the task, guidelines, details of the assignment, model exemplars?
 - (c) How should they submit the task, online or a specific deadline?

In addition, the marking and grading should be clearly explained to the students. Educators should also allow a good amount of time to explain the expected quality of the students' work in order to pass the task according to the level of their study. Students will progressively become better at marking themselves and judging the quality of their knowledge [30]. It is advisable to involve students in the marking scheme's development. This method gives an opportunity for students to deepen their understanding of the criteria and the requirements for best achievement.
3. **Enhance:** It is important to evaluate any course; to analyse what worked well, what did not and which areas have to be improved for next time. Assessment is about evaluating the course and enhancing the part that did not work last time. Evaluation necessitates data and feedback from different sources. Moreover, for a sustainable assessment, data should be gathered as quickly as possible after completing the assessment whilst the experiences are still fresh.

The benefits of feedback are summarised in two functions [13]:

1. The first is to reflect how successfully the students have addressed the task and its criteria (Feedback).
2. The second is to indicate how the assessment could have been enhanced to achieve a better result for next time (Feed Forward).

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