



A study of the purposes and importance of assessment feedback

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Abstract:

Most published literature on the subject reveals that feedback is an essential part of the assessment process and is vital for student learning. Nevertheless, there is little research on the perceptions of vocational teachers and trainers on the purposes and value of feedback for their students. This study attempted to survey a group of teachers and HRD professionals all studying for a university degree as to what type of feedback they preferred and how and when this feedback should be delivered. The results of the survey showed that all groups, on average, believed that students wanted quality feedback from their teachers that was timely, set against pre-defined relevant criteria and delivered either in writing or face to face. Subjects also thought that quality feedback was a necessary factor for effective learning and both positive and negative feedback was valuable. Constructive feedback was also perceived to be more valuable than either grades or marks. Overall, this paper revealed the strength of the teachers and trainers' opinion concerning the provision of quality feedback.

Introduction

In any area of vocational education and training, assessment is a critical part of the evaluation process. In fact, it is what actually drives the curriculum and behaviour of both students and teachers (Biggs, 1999). Not only is assessment critical for the measurement of student progress against specific learning goals but it also needs to provide feedback to learners both during and after their learning. There is much published research evidence in the psychology of learning to show that all learning comes about through practice and quality feedback (e.g. Walker, 1995). As Wiggins (1998, p. 43) has put it "*feedback is not merely useful.... It is an essential part of any completed learning*".

In a psychological sense, feedback appears to contain two major active ingredients. One of these is a reinforcing function or sometimes, it may be a punishing one via a teacher's reprimand. The reinforcing ingredient is usually provided through praise of the student's achievement; it may be a numerical mark, a written grade or a comment like "good". It may also be a non-verbal response such as a smile or a positive gesture. This reinforcing facet of positive feedback appears to strengthen the immediately preceding piece of learning or performance and can have a motivating or purely energising effect on the student's behaviour (Pithers, 1998).

A second major ingredient of feedback, however, is a developmental and constructive one. Effective quality feedback provides further information to the learner that helps to improve their performance. This ingredient only occurs if the teacher or trainer provides some further information. In short, it provides another practice trial for the learner to help improve their performance, which may occur for example, via a written critical comment on a student's report. In essence, this sort of feedback works to help eliminate errors in their performance, thinking and judgement and during this

process the learner usually changes their thinking and/or performance to better approximate what is expected of them.

In order to achieve the desired thinking, judgement and performance in any area of vocational education and training, it is critical for the learner to receive quality and timely feedback both during and after assessment in order for self-adjustment to occur. The student simply is unlikely to improve if assessment and testing does not provide effective and informative feedback. But the problem often is that "access to and quality of feedback is the last thing on the test designer's mind" (Wiggins, 1998, p.45). They are usually rather more interested in obtaining efficient, credible results quickly. In fact, most teachers and trainers, pressured as they are by a burgeoning curricula, often say that they do not have time for quality feedback, only testing.

Feedback can also be provided not only about the subject matter content learned but also aspects of the learning process and of the learner. For instance, their strategies for their own learning and problem solving (Pintrich & Johnson, 1990, p.83). Learners usually crave feedback. Through this process they can see that the teacher or trainer has taken the time to observe, examine, analyse and critique, to think about what they have said, written or done and to try and help them to improve their work. Effective feedback appears to be a very positive feature of all post-compulsory teaching-learning that helps to promote student understanding, motivation and well as performance. It can also decrease performance variability over time.

Published material in the general area of assessment feedback appears to have been influenced by all manner of issues, research directions and feedback. For example, McLeish and Shaw (1999) found that peer assessment and feedback enabled tertiary design students to become more critical and reflective about their own and others' productions. Cafferalla and Barnett (2000) in another learning context, reported a study about teaching students to become scholarly writers using various feedback critiques. They found that the feedback process was one of the most influential elements in helping the students to analyse the process of scholarly writing and to improve their academic writing skills.

Some other researchers have focussed their attention and research on feedback in several quite disparate areas of vocational education. In a study in the health area, it was found that faculty staff were rated "poor" at giving direct, objective, face-to-face feedback to their students, especially when it involved negative feedback. They found that their students desired timely, direct feedback on their clinical performance (Colletti, 2000). Brooker, Muller, Mylonas and Hansford (1998) in the teacher education area, found that not only were setting clear standards and criteria important for improving assessment practices for practice teachers but also the timely provision of generated feedback was critical in generating student teachers' change behaviours. Furthermore, a meta-analysis of research on the effectiveness of all forms of feedback in computerised instruction in further education, found strong and consistent superiority for feedback as opposed to non-feedback (Azeveldo and Bernard, 1995).

It should be noted, however, that the effects of feedback on tertiary students' performance and change have not always been consistently positive. This is probably because of certain learner characteristics such as the mode or type of feedback not being optimal for some students or even poor ecological validity of research

concerning issues in self-study materials (Martens & Dochy, 1997). Nevertheless, these workers have found feedback to be most-effective when it:

- (a) was provided only after the students made a response,
- (b) provided information beyond just verification (e.g. "right"),
- (c) was preceded by a pre-test and
- (d) was associated with a complex task.

Martens and Dochy (1997) carried out a research study about feedback and found that it did provide, on average, relevant information for their students. They found that feedback influenced learner engagement or motivation and that students reported significant training effects. Their adult students also indicated that negative feedback did not have negative consequences for their motivation. In fact, 24% of their students indicated that they studied parts of the subject matter content longer or once more as a result of the feedback received.

Indeed, assessment that includes constructive, informative, quality feedback can be used to aid all types of student learning. Nonetheless, in conjunction with the evidence that exists in support of assessment and the provision of timely, quality feedback, there exists much widespread discussion about a wide range of feedback issues. Basically, these issues are concerned with questions that fall into the following general areas: what forms or types of feedback should be given to students? who should give it? when should it be given? why give it? where should it be given? and how should it be given to best promote learning? (e.g. with large numbers of students).

Within these general discussion areas are specific issues about what sort of feedback is preferred by further and higher education students and trainers as well as what they think works best for them? There are issues about teacher-given feedback or that given by others such as the peer group. Issues remain about the effects of the reinforcing (or punishing) aspects of feedback in terms of the allocation of marks or grades and their perceived meanings. Even the "best" modes or types of feedback for tertiary students remains problematic (eg written or face-to-face). Issues remain about critical and negative feedback and performance or change. How can feedback be made to be more constructive and helpful is another area of debate as is the issue of how feedback can improve motivation and self esteem. Issues also remain about how different groups of students perceive feedback should be provided, how it affects them and how it might be improved.

The present authors after completing a literature search were certainly able to find publications about the importance and provision of feedback in different learning contexts. There still appeared to be little evidence available, however, which had examined the perceptions of vocational teachers and trainers as Human Resource Development (HRD) professionals about the sorts of issues just outlined. Furthermore, it seems that today, adult student perceptions, needs and expectations have become increasingly more important (eg Pithers and Holland 2002, Sander, Stevenson, King & Coates, 2000). This is because now more post-compulsory education and training students tend to see themselves as paying "clients" or "customers" of tertiary institutions, who are increasingly more aware of their own rights and expectations. They expect institutions or training organisations to provide an educational "service transaction", which involves expectations and needs relevant

to the provision of effective, quality feedback. The present study therefore, attempted to examine the views of a group of educational professionals on some of the major feedback issues. Here, different groups of vocational education teachers and trainers were surveyed to ascertain their views on a range of issues relevant to the provision of effective student feedback.

Method

Subjects:

The subjects were a sample of convenience. The researchers chose available but whole groups of teachers and trainers to enable them to obtain data from cohorts of people at different teaching-learning contexts. The subjects were predominantly vocational teachers and HRD professionals/trainers, studying for an education degree at a university. There were 107 subjects in total. These were made up of subgroups of students as follows: 66 undergraduate and 41 post-graduate students.

Survey Instrument

A questionnaire was designed and used to gather the data in an efficient and cost-effective manner. Twelve of questions were statements about feedback or its provision, which required the respondent to provide a response to a modified Likert Scale. Three other questions asked the respondent to choose from a range of alternatives. For example, one of the questions examined the way(s) 'the student preferred to receive feedback', another examined the 'students' perception of the importance of informative feedback' over various areas. Overall, the questionnaire examined student views on the issues described in the introduction.

Procedure

The respondents were provided with the questionnaire in their existing groups. Instructions were provided and they were asked, if they wished to do so, to complete it individually. Their responses were anonymous. All of the students available on the day completed the survey, which took, on average, about 15 minutes to complete. Questionnaires were then collected and the resultant data summarised and analysed.

Results and Conclusion

This study is able to report strong and clear evidence about the importance of assessment feedback as perceived at least by the sample of vocational educators and trainers surveyed. Every respondent in the sample "agreed" with the statement that receiving feedback on assessment is important. Over 95% of respondents "agreed" that feedback provided another learning experience and that it should be provided as soon as possible after submission of assessment tasks. Most respondents (86%) supported the statement that teachers should spend more time and effort in providing informative feedback and less time in providing a mark or grade.

Most of the respondents (80%) also agreed that criticism as part of feedback aided further learning with 35% of the respondents either "disagreeing or unsure" with the view that feedback always needs to be constructive. Indeed, only 58% of respondents saw positive feedback as always more important than negative or constructive feedback.

Feedback was certainly seen to be more valuable if given against pre-determined criteria. For example, 79% of respondents stated that specific feedback, based on pre-determined criteria was preferable to more general or holistic feedback.

Interestingly, only about 1 in 2 of the respondents (56%) agreed with the statement that there was a strong link between a grade or mark and future performance. Nevertheless, 3 out of 4 respondents (74%) saw a strong link between feedback and future performance.

In terms of a preference for "type of feedback", the respondents ranked a "written report" as their most preferred option. This ranking was followed by a "face to face meeting" (half as popular), "question/answer" and then a "checklist" (about a third as popular). Respondents preferred an independent marker to provide feedback, followed by the student (self-assessment) and peer group (about half as frequent in response). Other possible means of feedback such as using video or audio did not rate well.

The respondents were asked to rate various statements related to the major purposes of informative feedback. Those items rated as "very important" concerned feedback's purpose in promoting further learning (71%) and in assisting in the elimination of errors (71%). One other "very important" purpose of feedback was its perceived function to help in the evaluation of a student's strengths and weaknesses (62%).

Other factors seen to be either "very important" or "important", based on summed category data and in decreasing rank order, were found to be: "helps to evaluate strengths and weaknesses" (91%), "helps assess progress toward learning goals" (90%), "improves my understanding of the learning process", "improves my confidence about learning and motivate my effort" (85% for both) and helps self-reflection on learning (81%). Other suggested factors were rated of much less importance eg "helps to improve life-long learning".

Feedback, which provides a grade or mark, was rated by 74% of respondents as "very important" or "important" but 26% rated this purpose as either "unimportant" or only "of some importance". In all, 56% of respondents did the same for "determined how others perceive my work". Feedback as a technique to help improve learning tactics and strategies or to help to restructure information was perceived by only 1 in 2 respondents as "important". The major findings outlined here were broadly similar across the undergraduate and the graduate student groups.

In short, the provision of timely, constructive feedback, even if it is critical or negative, is seen by the surveyed sample to be of great importance to learning. It is something they appear to value, even above a mark or grade. These outcomes show the perceived importance of assessment feedback and suggest that vocational teachers and trainers in whatever field of practice, should try to develop clear and relevant assessment criteria that provides specific, timely, quality feedback wherever possible.

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