



INNOVATION ABSTRACTS

PUBLISHED BY THE NATIONAL INSTITUTE FOR STAFF AND ORGANIZATIONAL DEVELOPMENT, THE UNIVERSITY OF TEXAS AT AUSTIN
WITH SUPPORT FROM THE W. K. KELLOGG FOUNDATION AND THE SID W. RICHARDSON FOUNDATION

Using Test Feedback to Facilitate the Learning Process

Test feedback has been widely recognized as an essential part of the teaching and learning process. By giving useful feedback at the appropriate time and place, instructors have the potential to provide students with valuable information, as well as strategies they can use to improve their academic performance on future tests or other assessment measures.

Levels of Feedback

In both the research and applied literatures, feedback is described in many different ways, using many different labels. The following hierarchy is designed to synthesize these different labels into an organizational scheme which highlights their commonalities.

Level 1: Simple Knowledge of Results

At Level 1, the instructor provides the students with simple knowledge of results (e.g., "yes, that is a correct answer" or "no, that is an incorrect answer"). On an essay question this would be equivalent to simply writing, "-0 points," or "-5 points," or "C+," with no other comments. Feedback at this level merely tells the students that they were correct, incorrect, or how far away from being correct they were with their answer. It is a simple statement of where students are with reference to some standard. Although simple knowledge of results is useful for some evaluation functions, it is not as informative as the other levels of feedback.

Level 2: Knowledge of Results + Identification of the Error (discussion of where and/or how the students went wrong)

At Level 2, the instructor provides the students with knowledge of results and diagnostic information about their errors. For example, when discussing an essay question with a student, the instructor could say something like this: "It looks like you spent a lot of time discussing the first part of the question but did not adequately answer the second part of the question which was

equally as important as the first part." At Level 2, the students are not only given information about whether or not they were "right," or met the standard, but also about where and/or how they went wrong.

Level 3: Knowledge of Results + Identification of the Error + Discussion of the "Best" Answer

In addition to providing simple knowledge of results and a discussion of where and/or how the students went wrong, at Level 3 the instructor also provides information about what would constitute the "best" answer, and why that particular answer is seen as the "best" answer. For example, the instructor might say that, "Essays which received full credit included the following information... and the reason that information was important was because...." Thus, at Level 3, the instructor explains not only what the "best" answer is but why it is the best.

Level 4: Knowledge of Results + Identification of the Error + Discussion of the "Best" Answer + Discussion of Strategies to Avoid the Problem in the Future

Feedback at Level 4 would include information that was talked about in Levels 1 through 3 and would go on to include strategies that the students could use to avoid similar problems. For example, when discussing an essay question, some useful strategies for the students would be to: 1) underline key terms in the question; 2) look for signal words like "and" that indicate a two-part question; and/or 3) make an outline before writing an answer to the question. Thus, at Level 4, the feedback communicated to the students includes the information given at all other levels but also includes strategies that students could use to help themselves avoid similar problems.

When Is It Appropriate to Use Each of the Levels of Feedback?

Ideally, giving Level 4 feedback all of the time would be best. However, in the real world of post-secondary education, much of the instructor's decisions must be



made in light of the contextual constraints. The question then becomes: "How can I as an instructor best match the level of feedback I give to my students with their need for feedback in a particular situation, given the realistic constraints on my time and instructional resources?" The question of when and what level of feedback a student or a group of students needs seems to depend on a large number of factors. Because considering every variable that could affect these decisions is unreasonable, guidelines are needed to help make these decisions. These guidelines are based on four factors that have a large impact on the type of feedback that is optimal in a given instructional setting. These four factors include: 1) whether or not the students have given correct or incorrect answers; 2) the students' level of confidence in themselves as students and in the particular responses that they gave; 3) how much prior knowledge and/or experience the students have with this particular type of test or assessment method; and 4) how much prior knowledge and/or experience the students have with this particular topic area. Using these factors as criteria, we can begin to discuss when a particular level of feedback would be most appropriate or useful to students.

Level 1 feedback appears to be most useful when students have given a correct answer, feel confident about their answer, are familiar with this type of test or assessment method, and have a good background in the particular topic area. In this situation the students are correct, they thought they would be correct, they are familiar with this method of assessment, and because of their background knowledge they know why that particular answer was correct. In that situation, information about what the correct answer is and why it is correct would be somewhat redundant. In addition, because the students' answer was correct, there is nothing to diagnose; hence, you assume that the strategies they used were effective.

On the other hand, if the answers were wrong, but the students felt confident and had good prior knowledge of both this type of test and the content area, the students would need at least Level 3 and possibly Level 4 feedback. Level 3 feedback would be important because it would help the students to diagnose where they went wrong on this particular question, or type of question, as well as inform them of the correct answer. Then, depending on the nature of the problem, the teacher and student(s) could determine the need for a review of the strategies or discussion and practice with additional strategies.

If a student was not confident in her response, it would seem that being correct or incorrect would not

negate the need for feedback beyond Level 1. Being correct but not confident would indicate some question in her mind that would necessitate at least Level 3 information about what was the correct answer and why. Thus, if she was correct, Level 3 feedback would help her to increase her confidence by giving her additional information about what was the best answer and why. Whereas if she was not confident and not correct, at least Level 2 and probably Level 4 feedback would be needed. This would be even more important if students did not have a lot of background knowledge in the particular topic area.

In terms of prior knowledge of assessment method or content area, the general rule of thumb would be the less prior knowledge and experience the students have, the more the need for Level 4 feedback. In addition, as the students' level of experience increases, the task of diagnosing problems and selecting future strategies should become more self-directed. Therefore, part of the instructor's task related to giving feedback is the transference of control of the diagnosis of problems, and the selection of future strategies, to the students themselves.

Summary

Test feedback is an important part of the teaching and learning process. It involves, among other things, collecting information about students' performance, their level of confidence in their performance, their familiarity with the type of test or assessment method, and their background knowledge. By taking this information into consideration, the instructor can determine what level of feedback would be most useful for their students on a particular test, topic, or question. This process can help the instructor to design and deliver appropriate feedback at an appropriate time which provides students with information and strategies needed to improve their academic performance on future tests, or other assessment measures.

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October 5, 1990, Vol. XII, No. 22
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INNOVATION ABSTRACTS is a publication of the National Institute for Staff and Organizational Development (NISOD), EDB 348, The University of Texas at Austin, Austin, Texas 78712, (512) 471-7545. Subscriptions are available to nonconsortium members for \$40 per year. Funding in part by the W. K. Kellogg Foundation and the Sid W. Richardson Foundation. Issued weekly when classes are in session during fall and spring terms and once during the summer. ISSN 0199-106X.