Methods for improving teaching using student feedback techniques

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The teacher’s purpose is to teach and the students’ is to learn, but teachers can learn from students how to teach better. In the United States virtually every postsecondary facility utilizes some method of faculty or course evaluation. The evaluation of teaching can come from many sources: (1) self evaluation, (2) peer-evaluation, (3) classroom research techniques, and (4) faculty and course evaluations.

These techniques will be detailed, specific examples will be given, and an explanation will be included on how to develop a standard evaluation form. Although formal faculty/course evaluation forms are sometimes used by facilities in the United States for the purpose of making personnel decisions, this will not be the focus of this article. The focus is on how to use feedback techniques to improve teaching.

Evaluation as a component of curriculum design

There are three major phases in curriculum design:

1. Development: The course or program is drafted specifying the goals and objectives, organization of the material, teaching methods, and material options.

2. Implementation: Once the program has been designed, the teacher implements it.

3. Evaluation: The course is assessed in terms of the effectiveness of teaching and how well the program meets the primary objectives.

Once an educational program is established, how can the teaching effectiveness be analyzed? Evaluation of the students' learning by test performance provides one measure of the success of the curriculum developed but there are also many methods to evaluate the effectiveness of teaching through the use of student feedback. These measures can run from informal meetings to standard teacher/course evaluation forms.
Reasons for evaluation

8 Why would teachers want to evaluate their teaching? By identifying the weaknesses, they can be eliminated. By identifying the strengths they can be exploited.

9 Data from evaluation instruments can be used in making decisions to revise, maintain or discontinue certain aspects and content of a program. Although the concern over administrative policies of using student evaluations for personnel decisions was addressed frequently in the literature (Lewis 1991; Weimer 1990; Wennestrom & Heiser 1992), the use of feedback techniques as a tool for improving teaching was universally endorsed (Dianda 1992; Katz 1988; McKeachie 1994; Weimer 1990). Feedback defines strengths and weaknesses and outlines areas that need improvement. Improved teaching leads to improvements in students’ learning.

Major concerns with using evaluation forms

10 Aleamoni (1987) reported on research of typical faculty concerns about the use of student evaluation forms. Results indicate that the concerns are largely unsubstantiated.

11 Concern 1: Students cannot make consistent judgments
Research shows that students tend to be fairly consistent in what they are saying about instructors and instruction.

12 Concern 2: Student ratings are nothing more than a popularity contest
Studies have shown that students are very consistent in their ratings of teachers in terms of teaching effectiveness. Those teachers that are very dynamic and enthusiastic may rate highly in that section but not in others.

13 Concern 3: Students cannot make good judgments until they have graduated
Studies indicate a positive relationship between students who were currently taking the course and former students who have graduated.

14 Concern 4: Forms are both unreliable and invalid
Many studies have found that student ratings reasonably correlated with student learning. Arguments for professionally created and teacher created forms have been debated with evidence supporting both sides.

15 Concern 5: Extraneous variables affect ratings
Little or no relationship was reported for variables such as class size, student or instructor gender, time scheduling, or time of year. There were data that support the effects of course level on student ratings. First year students tended to rate instructors lower than second year students.

16 Concern 6: Students’ grades are highly related to their ratings of the course.
Studies show that there is not a significant correlation between ratings on an evaluation form and the grade received. Students who obtained low final grades did not necessarily score teachers as poor.

17 Concern 7: How can rating forms lead to improvement in instruction?
By applying the information gathered to define areas of strengths and weaknesses, changes can be made accordingly.
Methods of evaluation

Self-evaluation

The following self-evaluation checklist for developing instructional awareness has been adapted from Maryellen Weimer (1990).

• What do you do with your hands? Gesture, play with the markers?
• Where do you stand or sit? At/on the table, always seated?
• When do you move to a different location? Never, at regular intervals, when you need to write something on the board, do you talk and move at the same time?
• Where do you move? Back to the table, out to the students, to the blackboard only?
• Where do your eyes most often focus? On your notes, on the board, out the window, on a spot on the wall above the students, could you tell who was in class today without having taken the roll?
• When do you speak louder or softer? When the point is very important, when nobody seems to understand, when nobody seems to be listening?
• When do you speak faster/slower? When an idea is important and you want to emphasize it, when you are behind in the syllabus, when students are asking questions that you’re not sure of the answer?
• Do you laugh or smile in class? When, how often?
• How do you use examples? How often do you include them, when do you include them?
• How do you emphasize main points? Write them on the board, say them more than once, ask the students if they understand them, suggest ways they might be remembered?
• What do you do when students are inattentive? Ignore them, stop and ask questions, interject an anecdote, point out the consequences of not paying attention, move out toward them?
• Do you encourage student participation? How, do you call on students by name, do you grade them, how long do you wait for a response, do you verbally recognize a good response, do you correct students’ answers, how much time is devoted to student talk?
• How do you begin/end class? With a summary and conclusion, with a preview and a review, with a gasp and a groan?

Another method of self-evaluation is to complete the same course evaluation form that is given to the students and then compare the results with the analysis of students’ responses. (See course/faculty evaluation section). The differences between the teacher’s responses and the students’ ratings can be enlightening.

Peer evaluation

This method has generally not been very successful as a tool to identify areas that need improvement because peers generally do not like to «evaluate» their colleagues officially. Peer evaluation involves visiting a classroom at a pre-arranged time and reporting on the quality of the teaching for this class period using a standard evaluation form.

Several studies showed that most peers evaluated their colleagues highly and if given a vote most chose not to continue with this method, but classroom visitation was recommended as a method of sharing information and approaches rather than as an evaluation technique (Centra 1987).
Classroom research techniques

There are a variety of ways to gather information. Throughout the year information can be obtained from the students using the following methods:

Portfolios - Students are asked to keep a log which gives them the opportunity to record observations about assignments, the textbook, readings, classroom activities, exams, what they have learned and any other information deemed relevant. These logs are collected periodically and read by the instructor but not graded.

Student Reviews - An evaluation form can be attached to an exam to obtain information on the students’ reactions to the clearness, fairness, and comprehensiveness of an exam. A course materials review can provide insight about the selected text or other texts that are available. This technique can be used to preview potential texts for the coming year by using a student committee.

Minute Papers - This can be a very effective and successful on-going method. One or two minutes before the end of class, ask the students to write anonymously how they feel the class is going. What do they like best, what do they like least, what could be done better? This method provides the opportunity for feedback throughout the course and adjustments can be made as needed immediately, instead of waiting for the end of the year when it is too late.

Course and faculty evaluations

One of the most common methods of obtaining feedback from the students is through the use of course evaluation forms. Traditionally, the form is given to students to fill out at the end of the year or course but this can be too late to make improvements to the current course. Instead, they should be completed early enough in the course so that the information gathered can be put to use at once. Often this is done at the mid-semester point.

It should be stressed again that the use of evaluation techniques proposed here are for the purpose of improving teaching, not for the purpose of making personnel decisions. The forms should include detailed information on course characteristics, assignments, tests, and teaching methods rather than just general questions about instructor satisfaction.

For the purposes of feedback, many researchers advocate that teachers make their own evaluation forms, which enables the instructors to control the feedback process. The most common factors identified as distinguishing characteristics of effective teaching are: command of subject, organization and clarity, instructor-group interactions, instructor-individual interactions and dynamism/enthusiasm (Dianda 1992; Fenton 1991; Katz 1988; Lewis 1991). Therefore it makes sense to include these areas on an evaluation form.

Formats for evaluation instruments

There are several formats for the evaluation instrument: open-ended questionnaire, closed-question instrument, checklist and inventories.
The most common form is a combination, closed-question instrument with a comments section (open-ended).

**Open-ended questionnaires**

All the forms basically cover the same areas. The five areas outlined as characteristics of effective teaching: command of subject, organization and clarity, instructor-group interactions, instructor-individual interactions, and dynamism/enthusiasm should be included on the form, regardless of the format chosen.

Open-ended questionnaires are longer to complete, but more constructive information may be obtained about what to change specifically in the program. Examples of open-ended question from each category are found in Table 1.

Table 1 Examples of open-ended questions

<table>
<thead>
<tr>
<th>Category</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Command of subject</td>
<td>The most relevant information that I learned from this course is/was:</td>
</tr>
<tr>
<td></td>
<td>Knowledgeable. Comments:</td>
</tr>
<tr>
<td>Organization and clarity</td>
<td>The concept that became clearer to me is/was:</td>
</tr>
<tr>
<td></td>
<td>Provided clear explanations. Comments:</td>
</tr>
<tr>
<td>Instructor-group interactions</td>
<td>Challenged students. Comments:</td>
</tr>
<tr>
<td></td>
<td>Encouraged critical thinking. Comments:</td>
</tr>
<tr>
<td>Instructor-individual interactions</td>
<td>Challenged students. Comments:</td>
</tr>
<tr>
<td></td>
<td>Encouraged critical thinking. Comments:</td>
</tr>
<tr>
<td>Instructor-group interactions</td>
<td>How does the instructor promote student participation?</td>
</tr>
<tr>
<td></td>
<td>Provided feedback. Comments:</td>
</tr>
<tr>
<td></td>
<td>What I liked the most/least in the course:</td>
</tr>
<tr>
<td>Dynamism/enthusiasm</td>
<td>Professional role model. Comments:</td>
</tr>
<tr>
<td></td>
<td>Rapport with students and staff. Comments:</td>
</tr>
</tbody>
</table>

**Closed question forms**

These are easier and faster to complete but lack specific information about what to do if the area is rated low. This problem can be eliminated if a comments section is added to
each category or at the end. In the United States many of these forms are now computerized and can be read by a scanner. A printout of the results can be helpful to quickly identify patterns of strengths and weaknesses. This is probably the most common type of form. Examples of closed question forms can be found in Table 2.

Table 2 Examples of closed question items

<table>
<thead>
<tr>
<th>Category</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Command of subject</td>
<td>The instructor seemed knowledgeable in the subject matter.</td>
</tr>
<tr>
<td></td>
<td>Instructor demonstrates adequate knowledge of subject.</td>
</tr>
<tr>
<td>Organization and clarity</td>
<td>Instructor explains difficult materials clearly.</td>
</tr>
<tr>
<td></td>
<td>I received a course syllabus or course outline the first week of class.</td>
</tr>
<tr>
<td></td>
<td>The material presented was well organized and well integrated.</td>
</tr>
<tr>
<td>Instructor-group interactions</td>
<td>The lecturer used our names.</td>
</tr>
<tr>
<td></td>
<td>The class size was conducive to active student learning.</td>
</tr>
<tr>
<td>Instructor-individual interactions</td>
<td>Students felt free to disagree with the instructor.</td>
</tr>
<tr>
<td></td>
<td>Provided constructive feedback.</td>
</tr>
<tr>
<td></td>
<td>I learned a great deal from this course.</td>
</tr>
<tr>
<td>Dynamism/enthusiasm</td>
<td>The instructor seemed to enjoy teaching.</td>
</tr>
<tr>
<td></td>
<td>The instructor was successful in making the class interesting.</td>
</tr>
<tr>
<td></td>
<td>The lecturer was dynamic.</td>
</tr>
<tr>
<td></td>
<td>I would like to take another course in this area.</td>
</tr>
</tbody>
</table>

The rating scales for the responses to closed question instruments are varied. There is a continuum of responses that not only identifies the strengths or weaknesses, but also helps to define the magnitude of the item. Examples of scale ratings that can used after the question are shown in Table 3.

Table 3 Scale ratings

<table>
<thead>
<tr>
<th>Key rating</th>
<th>Key rating</th>
<th>Key rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>0. Not applicable</td>
<td>A Excellent</td>
<td>Never</td>
</tr>
<tr>
<td>1. Strongly Disagree</td>
<td>B Very good</td>
<td>Seldom</td>
</tr>
<tr>
<td>2. Disagree</td>
<td>C Acceptable</td>
<td>Sometimes</td>
</tr>
<tr>
<td>3. Neutral</td>
<td>D Needs improvement</td>
<td>Frequently</td>
</tr>
<tr>
<td>4. Agree</td>
<td>F Unacceptable</td>
<td>Always</td>
</tr>
</tbody>
</table>
Checklists

Checklists simply identify the absence or presence of a particular behavior which can be helpful to distinguish areas of strength or weakness but not necessarily their magnitude. The items on the evaluation form would be the same as for closed question formats but instead of a range of responses the student simply checks yes or no.

General advice

- Construct a professional-looking form.
- Look at results in terms of trends, not - Am I good or bad?
- Give forms before the end of class - allow at least 15-20 minutes.
- Include a comments section even with closed-question instruments.
- Allow anonymity.
- Ask only those questions that need an answer.
- Keep it simple.

Evaluation can be perceived as a threat to the implied power of the teacher, but in reality, personal and concrete feedback can be used as a source of inspiration and encouragement. Informed and useful feedback can invite faculty to reflect on methods to improve teaching practices and communication with students (see Appendix). Shouldn’t improved teaching lead logically to improved learning? Change can only come from a desire to apply the information gathered.

Thanks to Dr. Marcia Wratcher (Carnegie Mellon University) for her valuable assistance and input.

BIBLIOGRAPHY


**ABSTRACTS**

Teachers can learn from students how to teach better. There are many ways to get feedback to evaluate the quality of teaching: self-evaluation, peer-evaluation, classroom research techniques, and faculty/course evaluations. Virtually every post-secondary educational facility in the United States utilizes some method of faculty/course evaluation. The success of improving teaching depends on the quality of the information gathered and the desire to apply the information.


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**Mots-clés**: évaluation des cours, évaluation des enseignants, retour des étudiants

**Keywords**: course evaluation, faculty evaluation, student feedback

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