Peer Review of Teaching: A Multi-Faceted Approach to Improving Student Learning

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Abstract
Many universities use the student evaluation as the primary assessment of teaching. Peer review of teaching is also an important method of assessment, both formative and summative. The aspects of successful peer review of teaching are presented, and several methods of peer review are described. The different methods can be employed as necessary to make various assessments of teaching effectiveness.

Introduction
There has been much debate on the degree to which academy values teaching as compared to research by faculty members. One way to determine the value of an activity is to look at how the activity is evaluated. The *sine qua non* in the evaluation of scholarly research is peer review. As scholars, we present our research findings to our peers at conferences and publish in peer-reviewed journals. Peer review is the way we evaluate the quality of our research.

Consider how teaching is evaluated. Often, student evaluations are the only measure taken to assess the quality of teaching. While student evaluations are an important part of teaching assessment (Marsh 1987; McKeachie et al. 1991), there are certain aspects of teaching that should be evaluated by peers. As Hutchings (1996a) states (emphasis in original):

> If teaching were to be seen as scholarly, intellectual work, it would not be enough to evaluate teaching simply by looking at student ratings. Teaching, like research, should be peer reviewed. Indeed, *until* teaching is peer reviewed, it will never be truly valued.

Besides the need for peer review as a validating agent of effective teaching, peer review is also essential in the improvement of teaching. In the “booming, buzzing confusion of the classroom,” it is hard for the instructor, who is deeply involved in the process, to take it all in. The help of a peer in seeing ourselves teach “from the outside” is imperative when trying to improve teaching (Shulman 1993).

When I started this study, my view of peer review of teaching was very one-dimensional. For me, peer review of teaching meant having another faculty member sit in on my class and critique it. As my research unfolded, I discovered there is much more to peer review. In fact, using several methods in combination can result in a synergistic whole greater than the individual methods themselves. This study, then, outlines several methods that have been successfully used in the peer review of teaching.
**Peer Review of Teaching: Elements of Success**

Before discussing the methods used for peer review of teaching, it is important to determine the attributes of a successful peer review program. As Hutchings (1996b) states, the three main goals of peer review should be:

1. Intellectual rigor,
2. Appropriateness to the discipline, and
3. Improvement of teaching.

As the last of these goals states, peer review should not just be about evaluating teaching but should improve student learning. In addition, it is important that peer review be a process that is “owned” by the faculty. As Hutchings (1996a) states (emphasis in the original), “On most campuses, the evaluation of teaching is something that happens to faculty; they are objects, not agents, of the process.”

Time is also an important consideration. Faculty are very busy and reluctant to commit to excessively time-consuming projects. In many of the peer review projects I studied, the time commitment was surprisingly small. It was typically on the order of a half hour per week or less.

**Methods of Peer Review of Teaching**

Having established the elements of a successful program and that peer review of teaching is important, below is a discussion on various techniques that can be used.

**Reciprocal Visits and Observations**

Visiting the classroom was initially what I thought of as peer review of teaching. In my study, I not only realized that there were other helpful methods but that classroom visitation can be more involved than I had initially envisioned. A successful classroom visitation program will provide many of the following elements (Hutchings 1996a):

- Multiple visits occur throughout the semester.
- A previsit meeting is held to discuss expectations and aspects of instruction that should be “watched for.” The visitation is discussed afterward.
- Student interviews are conducted to gain further insight into the classroom experience. More information on effective student interviews can be found in Morehead and Shedd (1980).
- Students are informed of the process and what to expect.
- Observations are based on a systematic teaching model, and observers are trained on how to evaluate teaching based on the model (Millis and Kaplan 1995).
- A good fit is found between the purposes of the observation and the observers. For example, if assessing the content of instruction is important, then someone current in the field should be chosen. Or, if a teaching method is to be assessed, the observer should have expertise in working with and evaluating the method.

An important consideration of using classroom visitation is the lack of anonymity for observers. Because of this, it is difficult to elicit the frank assessment that is needed for a
summative evaluation of teaching (French-Lazovik 1975). In addition, class visitation is typically more effective when used in conjunction with other methods, such as student interviews (as mentioned above).

An alternative to student interviews is the “Small Group Instructional Diagnosis” (White 1991). In this method, the class is broken into small groups of 4-6 students. In their groups, the students discuss and come up with answers for questions such as “What helps you learn in this class?” and “What improvements would you like, and how would you suggest they be made?” After the group discussion, the class is brought together, and the groups report their answers. Further discussion ensues to distill the answers to the most important issues, which are then reported to the instructor.

**Teaching Circles**
A teaching circle is a small group of faculty that meet to improve teaching and learning. A successful teaching circle will (Hutchings 1996a):

1. Have a clear purpose with goals, expectations, and ground rules;
2. Focus on specifics such as student groups or curriculum (teaching circles that entail “general” discussion of teaching are usually not as effective); and
3. Disseminate results through the publishing of minutes, the creation of a brochure, publication of a scholarly paper, etc.

Teaching circles are often formed that focus on a specialized topic like large classes or first-year students. One teaching circle included students who were able to provide valuable insight. Another used the Internet to conduct the meetings online. The organizer of a teaching circle that included faculty from the mathematics department noted, “Mathematicians are allergic to anything with a touch-feely quality,” and so the teaching circle had to be more rigorous in nature (Hutchings 1996a). I would imagine the same would hold true for engineering professors. Accordingly, if I am ever involved in setting up a teaching circle, I will ensure that the structure does not become too “touch-feely.” In reading about teaching circles, one catalyst for success was mentioned repeatedly: providing refreshments!

**Teaching Portfolios**
Teaching portfolios are an effective way to document teaching excellence. A peer review of the portfolio further helps to improve teaching. Some advantages of teaching portfolios as a peer review technique are (Hutchings 1996a):

1. They give faculty more control over assessment,
2. They complement student ratings, and
3. They provide a way to share teaching technique with others.

While teaching portfolios have been used for some time, a course portfolio may be more helpful in some situations. Focusing on a specific course helps to get a better grasp on the content offered and leads to improved teaching. For teaching or course portfolios, there are several guidelines for success:
• The purpose of the portfolio (if it is required) should be clear. That is, the faculty should know what is at stake based on evaluation of the portfolio.
• Faculty should be encouraged to be selective in the material included and avoid including material “just in case.” This will ease the burden on those who evaluate the portfolio and increase the likelihood the evaluators will actually read the portfolio.
• Various kinds of evidence (quantitative and qualitative) should be included from various sources (colleagues, former students, etc.).
• The portfolio should include reflective commentary to indicate to reviewers what to look for.
• The portfolio can be thought of like a research paper complete with “a thesis with relevant evidence” (Hutchings 1996a).
• The portfolio should set goals and show how they are achieved.

Team Teaching
Working with a colleague in the teaching of a class is a good way to assess and improve teaching. Team teaching has been raised to new levels with the advent of “coordinated studies.” In coordinated studies, students take a block of classes rather than registering for individual classes. This coordination of classes allows the instructors to better “mesh” the content of the separate courses and improve student learning. The professors of the coordinated classes can meet to discuss specific students. Such a system involves much planning and institutional support.

Collaborative Inquiry
As Austin and Baldwin (1991) state, “The image of the solitary scholar working alone in a library carrel or laboratory is no more than a fond memory or historical artifact.” Just as collaboration has become ubiquitous in scholarly research, it is important for educational goals as well. Collaboration can help to assess whether a desired instructional goal is being met. It is especially important to use collaboration when the desired assessment falls outside the expertise of the instructor. Collaborative inquiry is also desirable to show that teaching methods are effective. One instructor who had seen a dramatic improvement in student performance was told by colleagues that his results were “interesting,” but they desired more proof that the students were actually “better than before,” not simply that they liked the new teaching method better (Hutchings 1996a). In response, he designed a study using collaborative inquiry and found that his new method did indeed appear to improve student performance.

Conclusion
In my naïveté, I initially decided that I would study the “best practices” of peer review of teaching. I had decided to find the best program and hoped to emulate such a program. In doing the research for this study, I realized that there is no “best practice” for the peer review of teaching. There are many successful methods that can be employed depending on the goals of the instructor and the type of information desired.
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References