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The Teaching Portfolio and Peer Review of Teaching

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Abstract

This paper is an Evidence-Based Practice Paper. It presents a process for substantive evaluation of teaching as part of the tenure process.

Inherent in a commitment to teaching excellence is the need for efficient and effective evaluation of teaching in order to appropriately factor teaching into the tenure process and to encourage and inform efforts of continuous improvement. Student ratings, partly because of their quantified nature, are broadly used as the principal means of evaluating teaching effectiveness. Yet, despite their value, student ratings have been demonstrated to be insufficient for thoroughly evaluating teaching effectiveness.

Many colleges and universities are working to find better ways to evaluation teaching. Peer evaluation of teaching is used by many institutions; however, these evaluations commonly lack substance. Teaching portfolios are also commonly used as a tool for teacher reflection leading to efforts of improvement. Yet concerns persist about the nature and effectiveness of teaching evaluation.

Over the past five years, Brigham Young University has developed a process built on the concept that peer review can be an effective tool for the evaluation of teaching just like it is for the evaluation of scholarship. In this process, the faculty member is responsible to provide substantive evidence of the effectiveness of their teaching efforts in a teaching portfolio. Peer reviewers then evaluate the evidence in the portfolio and triangulate with student ratings and their own observations of the faculty member's teaching.

Both the portfolio and peer review are guided by three pillars of effective teaching: *Student Learning, the Learning Environment, and Processes of Improvement*. In the teaching portfolio, the faculty member documents 1) evidence of student achievement of learning outcomes, 2) how the learning environment is used to motivate learning, and 3) the faculty member's efforts to continuously improve as a teacher. The portfolio, essentially a teaching journal, is regularly updated and constitutes a real-time, growing record of the teaching stewardship.

Then at each step of the tenure process, a snapshot of the portfolio is taken and provided to peer reviewers. As with scholarly manuscripts, the peer reviewer does not have the "burden of proof" but rather considers the evidence provided to evaluate the faculty member's teaching. They also use student ratings and their own observations to substantiate claims made in the portfolio. These peer reviews provide the tenure process with a thorough and detailed evaluation of teaching.

Through this process, all stakeholders have a substantive voice: the faculty member through the teaching portfolio; students through student ratings; and the institution through peer review of teaching. The process provides both more substance and balance to inform tenure decisions and, perhaps more importantly, is proving to be an effective means of motivating deliberate and informed efforts to improve teaching and learning across the university.

The proposed process is applicable and adaptable for all disciplines at the university. Yet it is particularly attractive in engineering disciplines because of our long history of establishing learning outcomes and teaching to those outcomes. This new process gives student achievement of learning outcomes a central role in the evaluation of teaching.

Introduction

An institutional commitment to teaching excellence necessitates substantive and authentic evaluation of teaching in order to appropriately factor teaching into tenure decisions and to encourage and inform efforts of continuous improvement. Student ratings, because of their relative simplicity and their quantified nature, are widely used as the principle means to evaluate teaching effectiveness. While it is true that student ratings contribute essential information, it has been demonstrated that they are insufficient for a thorough and accurate evaluation of teaching. [1, 2]

Many colleges and universities are working to develop better ways to evaluate teaching. [3-5] Peer evaluation, in a variety of forms, is used by many institutions, however, these evaluations commonly lack critical analysis. Teaching portfolios, in a variety of forms, are also common as a tool for teacher reflection. Yet, because existing methods generally still lack substance or are too labor intensive, efforts to develop better processes continue.

Several years ago, administrators and faculty members at Brigham Young University initiated a deep look into the evaluation of teaching in the tenure process. The motive force behind this effort was broad recognition of the inadequacy of existing procedures, which were deemed to be superficial and rather inconsequential. The prepared documentation for tenure evaluation consisted of (1) the faculty member's personal statement of their teaching philosophy, (2) student ratings reports, including comments, and (3) a brief report from two peer faculty members who visited one or two class sessions, perused teaching materials, and from these drew conclusions about the candidate's teaching.

Out of initial discussions about an improved process came an important hypothesis that peer review could be an effective tool for the evaluation of teaching much like it is for the evaluation of scholarship. In the scholarship evaluation process, the faculty member (researcher/investigator) is responsible to provide the evidence of the quality of the scholarship, so that peer reviewers can make judgments about the significance of the work. Similarly, in the envisioned teaching evaluation process, the faculty member (teacher) would be responsible to provide substantial and compelling evidence of the effectiveness of their teaching efforts in a teaching portfolio. Peer reviewers would then consider the evidence in the portfolio triangulated with student ratings and their own observations of the faculty member's teaching to provide a substantive, evidence-based evaluation of the candidate's teaching.

A committee was appointed with representation from colleges across the university. This committee studied the literature to glean relevant research-based principles and to learn about best practices. They sought input from standing university committees with responsibilities for faculty development and curriculum. And then over several years developed and refined a proposal for the process documented herein.

The Three Pillars

To be successful, the proposed process needed to be built on sound principles of effective teaching. [6, 7] Concepts from the literature were combined with unique aspects of our institution to develop the foundational model of the Three Pillars of Effective Teaching. Although there are other viable formulations, we believe this model is an accurate and useful distillation of the essence of effective teaching. Figure 1 depicts the three pillars upon which the peer review of teaching process is built.

Figure 1. The Three Pillars of Effective Teaching.

A focus on these pillars - Student Learning, the Learning Environment, and Processes of Improvement - provides a holistic view of the important factors that contribute to effective teaching. Each pillar is constructed of building blocks of specific detail articulated through guiding questions. These are shown in Table 1. Note that within the structure of the three pillars there is an opportunity to include institution-specific foci.

Table 1. The Three Pillars of Effective Teaching.

Student Learning
Learning Outcomes Are the course learning outcomes clear, appropriate to the course, and consistent with program outcomes? Do the learning outcomes reflect the Aims of a BYU Education? Are learning outcomes effectively communicated to students? Is the course well-organized?

Learning Activities Are learning activities well-designed and appropriate to the course? Do the learning activities promote student engagement? Do the learning activities effectively facilitate the achievement of learning outcomes?
Learning Assessment Are assessment instruments aligned with learning outcomes? Are assessments effective measures of student learning? How well are students achieving the learning outcomes?
Learning Environment
Relationships Does the instructor integrate faith [BYU is a faith-based institution] into the course and inspire students in their learning? Are instructor-student interactions appropriate, respectful, inclusive, and motivating to students? Does the instructor foster positive and supportive student-student interactions and ensure respectful discussions of challenging issues?
Settings Does the instructor use the classroom, lab, studio, etc. to create an effective setting for inspiring learning? Does the instructor create an atmosphere that motivates students to be active and engaged learners? Does the instructor create an atmosphere of civility and respect that welcomes diversity, promotes equity, and invites belonging for all students, regardless of their race, gender, sexual orientation, or other distinguishing feature? Does the instructor make reasonable efforts to make learning opportunities accessible to students with differing needs (e.g., physical, psychological, situational, technological)?
Materials & Other Resources Are course materials (e.g., text, notes, instructional technologies, teaching assistants) current and appropriate for the course? Are course materials used effectively to facilitate learning? Where appropriate, do course materials reflect a diversity of sources and perspectives (e.g., gender, race, ethnicity, culture)?
Processes of Improvement
Course Improvement Are assessment data and other sources of evidence effectively and consistently used to improve the learning outcomes, learning environment, activities, and assessments? Do these improvements lead to increased achievement of learning outcomes?
Professional Development Does the instructor engage in regular self-evaluation of their own teaching? Does the instructor participate in activities (e.g., consultations, seminars, courses, study of pedagogy literature) that help them learn and develop as an instructor? Does the instructor implement best practices, and have they assessed the impacts of those practices?

Student Learning. Of course, effective teaching suggests first and foremost good learning, so it is reasonable that this should be the first pillar. It consists of the quality of learning outcomes, the

efficacy of learning activities in achieving the outcomes, and finally the degree to which the outcomes are achieved. [8]

It is significant to emphasize that although typical semester-end student evaluations provide valuable feedback about some aspects of effective teaching, they do a poor job of measuring student learning. In fact, a quandary often faced by teachers is the reality that incorporating more challenging expectations into a course to improve learning could negatively impact student rating numbers. An important benefit of the teaching portfolio framework is a proper emphasis on student learning and the platform it provides for prominent discussion of efforts to help students achieve learning outcomes.

Learning Environment. The second pillar is the Learning Environment. Although the classroom is often assigned by others, within this setting, the teacher has great latitude and responsibility for establishing a positive learning environment. The learning environment plays a key role in student engagement and student success. [9] Key to the effectiveness of the learning environment are relationships between the teacher and students and between students which contribute to student motivation, engagement, and sense of belonging.

The classroom setting, structure, and atmosphere can inspire and encourage students to engage in the processes of learning, to bring their best, and do their best. The setting can help students develop a sense of responsibility for their learning and adopt a growth mindset. Also, the materials used to facilitate learning, textbooks, etc., should effectively promote learning. It should be noted that end-of-semester student ratings, including student comments, are an abundant source of feedback about the learning environment.

Processes of Improvement. The third pillar, Processes of Improvement, has two complementary aspects. First, is the expectation that teachers engage in effective assessment activities and then use assessment data to continuously improve teaching and learning. This applies to the achievement of learning outcomes, as well as to other aspects of student learning and the learning environment. Second, is an emphasis on professional development activities that build and expand teaching skills. These activities could include attending teaching workshops and conferences, reading books and articles on pedagogy, and peer-to-peer formative exchanges. Such activities can also revitalize a teacher's passion for their craft.

The Teaching Portfolio

The teacher builds a teaching portfolio, essentially a teaching journal, from semester to semester, guided by the concepts in the three pillars. At the end of each semester, they make a journal entry about their teaching efforts, including what went well and what needs work. Of course, it would be an onerous and ineffective task to discuss all aspects of the three pillars in each entry, and therefore emphasis is on the most salient issues, such as student achievement of a particular learning outcome, or specific aspects of the learning environment. Assessments and other sources of feedback, such as student comments and peer recommendations, provide evidence and are used to set reasonable goals for improvement efforts in the next course offering. With each

iteration of the course, the loop is closed as the impact of these efforts is assessed and new goals are set.

Consider a couple of general examples of stories that could be documented in the teaching portfolio.

> Suppose students did not achieve a specific learning outcome to the desired level of proficiency. In preparation for the next time the course is taught, the teacher consults with a peer who has previously taught the course and talks with students to better understand why they struggled with the material. The teacher uses this feedback to reengineer lecture material to more clearly present the topic, includes better examples, and develops more focused homework assignments. Then using appropriate measures, such as exam questions, achievement of the outcome is again assessed. The faculty member can then determine if the deficiency has been resolved or if further intervention is needed.
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> Suppose a teacher in a large lecture course is struggling to keep students engaged. The teacher invites a colleague to sit in on a couple of class periods and give some suggestions on how to address the issue. The peer recommends a suite of cooperative and active learning techniques. These are implemented and the teacher evaluates the impact of the changes.

Narratives like these communicate the engagement of the teacher in processes of improvement and their overall commitment to teaching excellence. The guiding questions of the three pillars invite and encourage focused formative activities such as seeking peer perspectives or reading about pedagogical techniques.

In some ways, the teaching portfolio formalizes what many teachers already do. These teachers make notes through and at the end of a semester about what went well and what needs to be improved. Sometimes this is simply a Post-It Note stuck to a page of lecture notes as a reminder. Sometimes it is a more thorough and detailed evaluation of a course. For faculty members who already do this sort of documentation, the teaching portfolio does not add to the workload of documentation, rather it facilitates deliberate and productive attention to improving teaching and learning.

Peer Review

As mentioned earlier, prior to the implementation of the Teaching Portfolio and Peer Review process at Brigham Young University, peer-review letters, required at each step of the tenure process, were most often superficial ‘cheer-leading’ letters that failed to provide a substantive evaluation of teaching. Therefore, these letters were not very informative nor very useful.

With the new process, the teaching portfolio is the basis for a more substantial review. When the faculty member arrives at tenure candidacy gates, a snapshot is taken of the portfolio and provided to peer reviewers. These peer reviewers study the portfolio, examine student ratings reports, and make visits to the candidate’s classroom. Classroom visits are pre-arranged with the instructor. From this triangulated perspective, they provide critical, detailed, and informative

evaluations of the candidate's teaching. As a result, the tenure process includes a more authentic evaluation of teaching, and notably, the importance of teaching in tenure decisions is elevated.

Pilot Studies

Early in the development work, several focus groups were convened to discuss the proposed process. These small groups involved faculty in the tenure process and department chairs and the feedback helped to troubleshoot and refine the process. Then, with the process nearing readiness for implementation, pilot studies were conducted for certification and final adjustments. These studies involved 38 volunteer faculty members from a broad cross section of the university, their department chairs, and peer reviewers also from their departments. [10] Approximately one third of the participants were part of a control group who used existing methods for the review of teaching for tenure.

Faculty members who employed the portfolio process were generally positive about the impact of the portfolio process on their own teaching. They claimed that it helped them focus on key aspects of effective teaching and make deliberate interventions. They also identified opportunities for improvement. The most common weakness identified by faculty was insufficient formative mentoring, both in coaching them through the process and in providing actionable feedback on specific aspects of effective teaching. Another weakness was inadequate training of department chairs and of peer reviewers.

These weaknesses are being addressed with better and more deliberate orientation of faculty in the tenure process and training for department administrators and for peer reviewers. It should be noted that peer review that occurs as part of the tenure process is meant to be summative. Formative peer review, strongly encouraged as part of the portfolio building process, is at the discretion of the individual faculty member with the encouragement and help of chairs and mentors. Compared to the control group, faculty members felt the process helped them to improve their teaching more quickly and that the portfolio process helped them to be more deliberate about ways to improve.

Conclusion

The Teaching Portfolio and Peer Review process has been adopted across the university and tenure-track faculty are expected to use it as they engage in their teaching stewardship and as they prepare their tenure packets. Positive benefits are already being realized. The teaching portfolio is helping tenure-track faculty focus their efforts and therefore improve more quickly. Notably, this is fostering sustained enthusiasm as teachers see the fruits of their efforts.

In addition, as hoped for, peer evaluations of teaching are considerably more substantive. As a result, tenure evaluations of teaching are more informed, and hence, although teaching has always been valued at the university, this process is elevating the stature of good teaching.

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