

Developing and Articulating Your Teaching Philosophy

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ABSTRACT

The development and articulation of a Teaching Philosophy is a requirement that both, newer and more seasoned engineering educators are being increasingly asked to produce as the building block of their professional careers. New Engineering Educators need to incorporate a strong Teaching Philosophy as part of their promotion and tenure dossiers, while more experienced educators will use it for advancement and promotion. In both cases, a clear and meaningful Teaching Philosophy is a critical point at the time of being considered for employment at another institution.

This paper addresses the author's visions and experiences in the development of a Teaching Philosophy that conveys his own personal visions of the University and Department while gives the audience a framework to develop their own. There are four main critical points that educators need to consider at the time of developing their teaching philosophies, summarized below:

- a) Their objectives in teaching.
- b) Tools and methods used to achieve those objectives
- c) Tools and methods used to measure the achievement of objectives
- d) The self-reflection on why teaching is important for them

The goal of this paper is to analyze each one of these critical points, guiding faculty members towards building a document consistent with their interests and institutional mission.

Introduction

The need to develop teaching portfolios is becoming more widespread in academia. Newer and experienced engineering educators can expect to be asked to produce teaching portfolios for several reasons (Seldin, 1991). For experienced educators, a teaching portfolio is an ongoing document that supports their particular teaching method and style, documenting their experiences and results trying newer approaches in the classroom. For newer faculty, a teaching portfolio is often linked to the documents that prove their teaching effectiveness during the probationary period in tenure-track positions. Teaching portfolios are also used to demonstrate how faculty attempt to motivate students to learn, their creative attempts at developing new courses, to document changes done in a course as a result of feedback from their constituents and to document their self-improvement efforts in teaching.

And integral part of both, teaching portfolios and promotion and tenure dossiers, is the teaching statement. The teaching statement is considered to be the skeleton that is further developed in the whole document. However, the importance of developing a teaching statement goes beyond these implications. Developing a teaching statement is an exercise of self-reflection that gives educators the opportunity to cement the framework and orientation of how they approach teaching and higher education in general. While there is an abundant body of literature on teaching and course portfolios (Seldin, 1991; Seldin, 1993; Cerbin, 1994), there is much less written material on developing teaching statements. The goal of this paper is therefore, to share the author's experiences in developing a teaching statement and his own vision of higher education in the twenty first century.

Evaluating the objectives of your teaching statement and philosophy

It is important to start by asking ourselves two critical questions: *What is teaching for us?* and *How do we see ourselves as teachers?* The rest of the teaching statement and teaching portfolio should provide the evidence that supports our personal answers to these questions. This paper does not attempt to provide any answers to these questions as they should be different for each faculty member, but to bring additional questions that may help them at the time of seeing themselves as teachers and developing a teaching philosophy and writing a teaching statement.

What do we want our students to learn? This depends not only on our background and specialization, but also on how we see Higher Education and its role in today's society. However, we need to clearly state the reasons why we chose to focus on those aspects. In today's world, providing the students with only the technical tools and skills in the engineering and technological fields is not enough to ensure their professional and personal success. Today's society demands professionals who are not only proficient in their areas of expertise, but they are aware of the social implications of their work. Furthermore, the technical skills that we may teach students while in college can become obsolete in a very short time. Therefore, we need to ensure that when the students leave our classrooms they will be ready to learn on their own. In our teaching statement, we should try to address these facts asking ourselves *How do we foster critical thinking and life-long learning?*

It is not uncommon for a given faculty member to teach at different levels. Our approach in teaching senior students will be different than the approach we use in freshman-level classes. It is therefore useful to reflect and document how we develop our classes based on the academic maturity level of our student, answering the question of *How do we balance the type of students we have against the objectives of our academic institution?*

A final basic point in providing the big picture of how we see ourselves as teachers should be focused on *How do we benchmark against national objectives?* Once again, the answer to this question will vary

depending on the type of institution we are working at, and our specific academic programs. However, it is always possible to compare our performance and professional development against that of colleagues in similar positions. We need to self-reflect on how we improve education in our field and how we interact with and relate to our colleagues. The teaching statement should also explain how our work fits into what is being done nationwide as well as how we use pedagogical journals and conferences not only to shape our courses, but also to disseminate our experiences with the professional community.

Supporting the objectives developed in the teaching statement and philosophy

Once we have a consistent picture of our teaching goals, we need to state and explain the steps that we take towards achieving these goals. These activities will be related to the boundary conditions in which we develop our academic work such as the type of students we have, the type of institution, campus, program, etc., and also need to be developed in support of the institutional mission.

The teaching statement should address how we plan sharing with our colleagues the results of the approaches and techniques that we have implemented for new and existing courses. Probably, more important than sharing the successful results, it can be to share the experiences that didn't work as planned in the classroom as they tend to incite more interest and discussion with our colleagues. Similarly, the teaching statement should include future plans and ideas to develop in the future approach on teaching our courses. In any case, we should address not only the activities undertaken in our classes, but more especially the reasons why we do them and how we believe that they will help the students to learn and achieve the objectives for our courses. Although cooperative projects are becoming increasingly common in technical programs, there may be situations in which faculty members prefer to assign individual projects to balance student exposure to different types of work. These situations should also be analyzed in the teaching statement as it reflects the faculty member philosophy on balancing collaborative and individual work.

Faculty members do not have control over the size of the classes they teach. However, we have control over how to approach differently a large class than a small class, by choosing the techniques that best suit them instead of using the same method regardless of the class size. Similarly, the teaching statement should address the technology used by the faculty member as well as their personal views on the use of technology, addressing how to use it and why to use it. Finally, the teaching statement should also address how the work that is being described in the document compares to how other colleagues approach the same teaching objectives as well as the efforts carried by the faculty member regarding the dissemination of their work. Dissemination of our pedagogical approaches is a key factor as it allows other faculty members to experiment with the techniques that we have used in the classroom, thus making it a true collaborative effort among faculty and institutions.

Measuring the achievement of objectives

After reflecting on what we want to achieve, and how we plan to achieve it, it is then time to evaluate how well we have achieved our objectives. The keyword is *Assessment*. Assessment has become a common word in the fields of engineering and engineering technology given the shift in the focus of the Accreditation Board for Engineering and Technology. This has originated institutions, departments and individual faculty members to engage in the process of assessing student learning, the curricular offerings as well as their individual performance.

The teaching portfolio and the teaching statement need to explain how faculty members address assessment at different levels. First, it should address how we assess the learning of our students. For this reason, there needs to be a clear relationship between the objectives that we want them to achieve and how we can develop instruments to measure this achievement. It is then necessary to benchmark the student competencies against the desired outcomes that we have specified when developing a course.

One of the issues that can bring the most anxiety to faculty members is the assessment of their performance as teachers. These activities were initially developed to provide faculty members with meaningful feedback on their performance in the classroom. However, they are used by administrators to evaluate faculty members, therefore distorting their original intent although it is necessary to point out that it has been demonstrated the high correlation of student evaluations with other indicators of teaching quality (Felder, 1992). In any case, we expect evaluative assessment to be present in academia. While most institutions have their own standardized measure of faculty performance, most of them allow individual faculty member to complement them by developing their own assessment tools. These have the advantage of being able to provide meaningful information instead of just a numerical score as it happens with the majority of institutional measures designed to evaluate faculty performance. Furthermore, faculty members can tailor them to the intrinsic characteristics of their particular course, thus focusing on specific areas or activities. These informative assessment tools, as related to our teaching objectives should help faculty members at the time of reflecting on their role as instructors and what they want for their students to accomplish.

Obviously, because of the limitations attached to the teaching statement, it is not possible to describe the assessment methods in the needed detail. The teaching statement should just indicate the assessment methods that are used by the faculty member and leaving the details of implementation and results in more extensive documents such as teaching philosophies or teaching portfolios.

Conclusion

Teaching is important for us; otherwise we would not be reading this. We value what we give and also what we receive from teaching. Writing a teaching statement is a unique opportunity for a self-reflection exercise, a refreshing way of looking inside us and remembering why teaching is important for us and what are the personal and professional rewards that we receive from teaching. In addition, it allows us to take the necessary steps in order to improve specific academic skills so we can achieve our educational goals. Finally, the teaching statement allows us to verbalize our goals to make a difference in the lives of our students, sharing them with other colleagues and consequently transcending our barriers and limitations.

References

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