

Commentary

The Teaching Philosophy Statement: Purposes and Organizational Structure

by Robert J. Eierman

In a recent *Chemical and Engineering News* (1), more than 40% of position advertisements for new college chemistry faculty members included a request for candidates to provide a teaching philosophy statement as part of the application file. Another 20% requested a statement of teaching plans or interests. Almost all primarily undergraduate institutions requested a teaching philosophy statement. These statements are included in the application file along with a curriculum vitae, research plans, and letters of reference. As the application files are reviewed by the search committee and other participants in the search process, the teaching philosophy statement is used as part of the evaluation of the potential of the candidate to serve as a faculty member, particularly the candidate's potential as a teacher.

Variability in Evaluation of Teaching Potential

For evaluation of research potential, the chemistry community has come to some consensus about what should be presented and how it will be reviewed. However, the presentation and evaluation of materials to evaluate teaching potential is less mature. It has been my experience that the value of the teaching philosophy statement is not as high as it should be and that candidates and reviewers have a wide variety of expectations and understandings of what that statement should include.

This article discusses the purposes of a teaching philosophy statement and suggests what should be included. The goal is to encourage candidates and reviewers to reflect on this important part of an application file in order to make it more effective. Teaching represents a significant fraction of the workload in most academic positions. Recruitment of qualified and dedicated individuals is a critical activity for both the hiring institutions and the candidates. The teaching philosophy statement holds a key position in the hiring process and could become much more effective with some reflective dialogue.

In recent decades, issues of teaching and learning have been studied systematically at a variety of levels and models of teaching and learning have developed rapidly (2). The combination of brain imaging studies, educational psychology, and pedagogical developments in the disciplines is changing the way people think about teaching. As a result, a variety of literature-based books on best practices in teaching chemistry have been written (3–5). In addition, many graduate programs have recognized the advantage of helping their students learn some fundamentals about teaching. The result is that candidates for faculty positions have some resources available to help them prepare to enter the world of teaching. It is hoped that this article will help focus their teaching philosophy statements and make the candidates more viable for employment.

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Purposes of the Teaching Philosophy Statement

To establish what should be included in a teaching philosophy statement, it is logical to discuss what it will be used for. Its purposes to both the reviewer and the candidate are discussed.

Reviewer Expectations

Reviewers are trying to assess the teaching potential of candidates in three areas:

1. Experience in and commitment to teaching
2. Understanding of models of learning and methods of teaching and assessment
3. Examples of applying that understanding in teaching situations

Experience and commitment are evaluated by reviewing the amount and types of teaching experience, including the amount of control the candidate had in designing the instruction. Being a TA is a valuable experience, but typically the professor retains control of most aspects of the curriculum. Experience as instructor of record clearly has higher value. A candidate's commitment can be evaluated from the record of activities in developing teaching skills and the statements of the candidate's enthusiasm and plans for teaching.

Then reviewers will evaluate whether the candidate has thought and/or read about teaching and learning. Candidates should demonstrate knowledge of models of how students learn, how best to encourage learning, and how to assess whether learning has occurred. The candidate's ability to structure and articulate ideas on learning and teaching is also important.

Third, can the candidate demonstrate how to apply the stated philosophy in the classroom and lab? Linking philosophy and practice of teaching is a challenging part of being an effective instructor, as is being a reflective practitioner. Effective candidates should be able to show that they are able to do both.

Candidate Opportunities

For a candidate, the philosophy statement represents an opportunity to formally articulate personal ideas about teaching. This may be the first time a candidate has ever done this—even

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a candidate with significant teaching experience. This statement should accurately reflect the candidate's ideas about teaching and not be overstated. Writing it forces the candidate to organize, express, and justify ideas about teaching. It requires literature work. Candidates should reflect on their teaching for examples of where their philosophy developed and was applied. This is a difficult task for someone who is new to teaching, but it is also a task that can help focus ideas and reasons for initiating a career in which teaching plays a major role.

The Organizational Structure

A suggested organizational structure for the teaching philosophy statement appears at the right. Individual statements may emphasize or omit certain sections, but the overall structure is designed to help candidates and reviewers achieve a thorough presentation and review of teaching experience and potential. There could be many effective variations on the order of the topics, but the issues mentioned should be considered for inclusion.

As with other parts of the application file, candidates should present their philosophy in a positive, but truthful manner. Ideas and beliefs should be presented clearly and are best if backed up by experience or literature references. In addition, the teaching philosophy statement should be connected to the CV, reference letters, and research interests where appropriate. If acceptable, supporting documentation (teaching materials, teaching evaluations, etc.) can be included or at least mentioned as being available upon request. Consistency in organizational structure will make preparation and evaluation of the teaching philosophy statement easier and more effective. A clear teaching philosophy statement will demonstrate that the candidate has developed good ideas about teaching and learning through reading, teaching experience, and reflection. Reviewers will be able to more effectively compare candidates' teaching experiences and understanding. They will see how well the candidates have recognized important aspects of teaching and applied that knowledge in the laboratory or classroom. Reviewers should realize that less experienced candidates will have less developed teaching philosophies, even if they have strong potential.

1. Experience in and Commitment to Teaching

A specific statement of experience and interest in teaching is important. Although the curriculum vitae will have information on experience, this statement can flesh out the experiences to give the reviewer a clear picture of what and when the candidate has taught, and the level of organizational control the candidate had.

- Did the candidate choose the topics and select the educational objectives?
- Did the candidate design the teaching activities and select homework and other assignments?
- Did the candidate design assessment tools and do the grading?

The answers to these questions relate a great deal about the value of the teaching experience.

The Teaching Philosophy Statement

1. Experience in and commitment to teaching
2. Philosophy of teaching and learning
 - a. Learning models
 - b. Teaching models
 - c. Assessment
3. Teaching interests
4. Summary
5. References

In addition, the candidate should state clearly his or her level of interest in teaching. If possible this statement should be supported by activities the candidate has done in teaching and development of teaching skills. Student evaluations, awards, or other indications of reviews of past teaching may be used to support these statements.

2. Philosophy of Teaching and Learning

The philosophy statement should address at least three separate issues.

a. Learning models: a prepared, reflective teacher will have developed ideas about how students learn. These will include cognitive models that describe what happens in a learner's brain as well as ideas about the activities that prompt learning. Ideas about variations in learning styles, preconceptions, conceptual changes, and impact of factors such as motivation and level of cognitive development might be part of this section.

b. Teaching models: statements on how learning can be encouraged should be included.

Consider teacher activities:

- Communication of expectations (are they explicit or are students responsible for finding them?).
- Choice of learning environments and classroom management (individual vs. group work, level of instructor support, etc.).
- Choice of content presentation and materials (lecture, discussion, reading, lab work).
- Definition of the student/teacher relationship.

Consider student activities:

- What are the student's responsibilities?
- What does the student do in the class or lab?
- What sort of practice and feedback is the student assigned?

c. Assessment: include comments on modes of assessment of learning.

- Are formative and summative assessment differentiated and discussed?

- Are written or performance-based assessments appropriate?
- Are the standards clear and appropriate?
- Are the assessments explicitly linked to the expectations?

These statements should be consistent with the learning models described above.

3. Teaching Interests

Describe courses that you are qualified to teach and are interested in teaching. Review the courses taught at the institution where you are applying and mention existing courses that are of interest. Suggest a new course or two that you would be interested in developing that would utilize your abilities and diversify the institution's course offerings.

4. Summary

A summary statement should tie together the thoughts expressed previously since it will help the reviewer form a final picture of your teaching philosophy. The statement should be a clear and succinct restatement of the main ideas expressed above. This statement will have the highest probability of being read.

5. References

The reference section should be as complete as possible to give reviewers an indication of the sources of information drawn upon in developing the teaching philosophy statement. It should include literature references, other sources such as TA manuals or teaching instructor notes, as well as any of your publications related to teaching.

Continuing the Discussion

This article describes the purposes and an organizational structure of a teaching philosophy statement. A document that has been written following this structure will improve communication about the teaching accomplishments and potential of an applicant for a faculty position.

It is my hope that this guide will help candidates and reviewers as they engage in the important process of determining who will teach the next generation of chemistry students. I also hope that this commentary will stimulate the chemistry com-

munity to engage in a dialogue to move toward a consensus regarding what should be included in these important documents. By way of beginning the dialogue, I am putting forward two things:

- My own Teaching/Learning Philosophy Statement: this will appear in the online material that will provide an example of what I have described above in the Commentary.
- An invitation to interact with other readers as well as with me via the ChemEd Digital Library blog: submit your ideas about what a teaching philosophy should be and read what others think.

Literature Cited

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<http://www.jce.divched.org/Journal/Issues/2008/Mar/abs336.html>

Abstract and keywords

Full text (PDF)

Supplement

Author's Teaching/Learning Philosophy Statement

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