How to Write a Teaching Philosophy for Academic Employment

ACS DEPARTMENT OF CAREER SERVICES

Along with a curriculum vitae, a research statement and a cover letter, a statement of teaching philosophy (or philosophical framework) is becoming an increasingly important piece in the materials that represent you as a faculty member (or future faculty member). This American Chemical Society publication is meant to assist experienced, inexperienced and future faculty members with writing their teaching statements.

This guide is neither comprehensive, prescriptive nor the last word. Indeed, a statement of teaching philosophy is an extremely personal text, and it should reflect and represent its author as an individual. We hope that these guidelines and suggestions will help authors of teaching statements to organize their thinking in useful ways.

As with other scholarly practices, committing your ideas to writing requires an added degree of reflection on your purposes and intents. By writing a statement of teaching philosophy, you also make your thinking public, open to discussion or comment. This is a good thing. Whether you are a graduate student preparing materials to apply for your first faculty position or an experienced faculty member, writing your statement of teaching philosophy codifies your thinking at a particular time.

The teaching statement gives you a starting point for examining your teaching practices, allows you to share your ideas with others and allows you to monitor the progress of your own development as a teacher. Additionally, a teaching statement is a great organizer for a course, curriculum and teaching portfolio, where you represent details about your teaching practices and your students' learning.

Throughout this article we have included excerpts from actual statements of teaching philosophy that have been published on the World Wide Web. These were uncovered by searching on "teaching philosophy" with the Infoseek search engine (www.infoseek.com). URLs are provided as citations along with the name, department and institution of the individual author as of July 2000. Although the shelf life for these citations, and even the original statements, is likely to be short, we think it is important to capture a snapshot of faculty thinking about statements of teaching philosophy by using their own words.

Any uncited excerpts are from the author's personal statement, which is unpublished. Finally, we have intentionally included in these quotations what we consider to be poorer examples along with the better ones, and we leave this evaluation up to the reader's own sensibility. I thank collectively those individuals whom I have quoted for making their philosophies open and available to all of us.

What Is a Teaching Philosophy?

Just because you have never written a statement of your teaching philosophy does not mean that you do not have a teaching philosophy. If you engage a group of learners who are your responsibility, then your behavior in designing their learning environment must follow from your philosophical orientation. So, like it or not, you have a teaching philosophy! What you need to do is discover what it is and then make it explicit. What you can gain from writing your philosophy down is a clearer understanding about your own thinking. Of course, this process can also reveal inconsistencies, incompleteness and even errors that you want to correct.

A written teaching philosophy answers a direct question that has multiple facets, namely, *what is teaching and learning to you*? This complex question can be broken down into the following categories, accompanied by a set of appropriate questions to help direct your thinking.

Theoretical Framework: How Does Learning Take Place?

This question should feel like a challenge because it is. Most faculty members do not have any background in educational theory. Indeed, faculty can be disdainful and suspicious of discussions about educational theory because it is outside of their experience. Fortunately, you can still write your teaching state-

ment if you are in that group. First, think deeply about more and less productive episodes of learning (not teaching) that you have been a part of, and then try to capture the essence of those experiences to guide your thinking about designing instruction. Many people find it useful to think of a metaphor that can capture the spirit of a successful learning experience. Are students empty vessels into which instructors pour well-organized information? Are students members of the learning team where instructors are the coaches? In any case, be prepared to add a sentence or two of explanation about your metaphor so that readers get the sense of what you mean. A theoretical framework can have multiple targets. For instance, one statement might assume an individual learner is its focus, while another might proceed from the idea that groups of learners are key. Alternatively, an institution's mission and how it allocates its resources might be the framework selected by someone else. In the following three passages, taken from authentic statements, notice how rapidly you can get a sense of the individual authors and their relationship to teaching and learning. Again, these excerpts have not been selected for their excellence, but rather to show you the range of choices that have been made by people writing their teaching philosophies.

My philosophy is based on a proposition that "teaching is about learning." This means that to improve teaching I must focus on the learning needs of the future that will be shaped by today's students…. Learning is not something that can be defined as a procedure; learning is something that occurs in a rather unstructured and ad hoc way. However, learning can be built into structures and processes. As we make new connections between known concepts, add new strategies, and link those new concepts to old concepts, then we begin to learn and our body of knowledge grows. Thus, knowledge is a web of concepts with a whole lot of connections between them. (Jambekar, 2000)

In the sciences in particular, students must acquire a working knowledge of the fundamental principles and associated terminology of a given area. Much of this must be memorized. The "facts and jargon" must be presented in a highly organized fashion, showing the necessary connections, but without overwhelming the student with quantity at any one time. (Powell, 2000)

The primary purpose of U.S. colleges and universities should be teaching, not the preparation of professional athletes. So the question is: How are we to assure that the brightest students select science as a major in college and then as their career? (Wallace, 2000)

Goals: What Can a Student Get Out of Your Courses?

Instructional goals are an important starting point in your instructional design. Goals are often construed naively as a syllabus of topics ("Students will learn the Crossed Cannizzaro reaction during lecture number 24," for instance). In your statement of teaching philosophy, you should not only consider examples of what subject matter items you think students should learn, but also some of the broader issues that add value to the education students can be expected to obtain by working with you. You might also consider the question of why these goals are important. It is useful to think in terms of three levels of educational goals represented by these three questions:

- What goals do you have for students as learners in the specific subject matter?
- What goals do you have for students as learners in chemistry, as a science, and as science learners, in general?
- What goals do you have for students as learners in general, within the liberal arts educational framework where chemistry sits?

My goals as a teacher are rooted in my scientific objectives. As a scientist my objective is to provide information to help individuals and agencies responsible for land management to make sound and ecologically based decisions. (Hopkins, 2000)

My teaching goal is to link course performance with the development of general learning skills, general chemical science skills and specific subject matter skills. For instance, I want students to derive meaning from new information in a way that engages a variety of learning strategies and the ability to make an appropriate choice about what strategy to use. In the subject matter, I want students to understand the development of the molecular structural model in chemistry (from constitution to connectivity, and then the three-dimensional aspects of conformation and configuration).

Why does chemistry seem so hard to a typical college student? How should the transmission of information take place? Ultimately, the goal of education is learning, not teaching. I believe that students should be stimulated to think on their own. (Gamamick, 2000)

Design and Implementation: How Do You Plan To Accomplish Your Goals?

Design and implementation are different. You can have a good plan (the skill) but still not be able to enact it (the will). This is because teaching is a complex social activity that requires physical and emotional behaviors in addition to just a good idea. A smoker who decides to quit for lots of good reasons demonstrates the skill, or understanding, of what to do, but this alone does not constitute the behavioral will to enact the plan. Once you have constructed your instructional goals,

you need to address how you think you can help students accomplish them. This is the first time when your reader will look for congruence, or alignment, in your thinking. Your design and implementation plans should clearly reflect and be informed by your goals. If your goals emphasize higher-level learning but your design looks like a plan for students to memorize and feed back large amounts of factual information, then your reader might conclude that you have not thought deeply about your ideas. A short narrative snippet of a teaching situation can be quite effective in revealing your thinking about instructional design and implementation.

- What kinds of learning environments do you think can accomplish your goals?
- What is your role, and that of your students, in this design?
- What sorts of technological requirements come with your plan (from classroom laboratory design to computational infrastructure)?
- What does it look like when you implement your design?

I especially enjoy designing learning experiments for my students in Chemical Engineering 140, our introductory course. At the beginning of each lecture a student is chosen at random to stand up and review, in his or her own words, what they found important from the previous lecture. In this way, I am conducting teaching-reflective learning, helping the students organize information in such a way as to put it into perspective. (Reimer, 2000)

Computers and calculators are tools, like chalkboards and overheads, which can be used to the professor's and student's advantage. (Kaplan, 2000)

Of course I encountered the difficulty of facilitating discussion in a classroom of 30 bolted-down seats, many of which held students either unprepared or too shy to speak. Here, then, I must add a corollary to my first principle: facilitate different kinds of learning activity in the classroom. After attending two presentations by [name deleted], I decided to introduce an element of cooperative learning into the undergraduate class I am teaching this spring. (Feldman, 2000)

Assessment and Evaluation: What Constitutes Evidence of Student Learning and Effective Instruction?

Instructors collect (assess) information from students in order to judge (evaluate) it. When an evaluation is summative, it results in rankings of student performance (e.g., grades) and certifies a level of competence against some standard. When an evaluation is formative, it feeds information back to students and instructors during the teaching and learning process so that corrections and improvements can be made. Summary and formative evaluations are complementary goals of assessment. No single assessment strategy can reveal all aspects of teaching and learning comprehensively, so many approaches are necessary.

Instructional goals are the hypotheses enacted by your instructional design. These hypotheses are tested by your assessments. Consequently, a well-articulated set of course goals and instructional methods is important. Readers will notice if you have congruence between your instructional goals, your instructional methods and your assessment program. Attending to this alignment in your statement can also have an impact on the way you think about your own practice. Do you think that you should only give multiple choice exams after each unit without collecting intermediate feedback? If so, does this follow from your teaching methods and your goals? Can you support this position with examples from your experience?

In this section, as well as the Design and Implementation discussion, separating your comments into individual categories might be useful. Some faculty see clearly different demands coming from Introductory Undergraduate Teaching, Upper Level Undergraduate Teaching, Undergraduate Research, Graduate Teaching, Graduate Research and so forth.

- What kinds of classroom assessments do you use, if you do, and why are these effective for you?
- How do students developing self-assessment skills play out in your assessment program?
- What is your experience or position on conducting classroom research on student learning?
- What are your principles for creating good examinations (and other assessment tasks), and how are these aligned with your goals and methods?
- What is your basis for assigning grades?

In this peer-led program, students have a structured opportunity to make, recognize and correct their errors before they get to an examination. After they review one another's work, the reviews and the

unmarked papers are returned to the originator, and he or she has a chance to decide if any corrections are needed. This second set of assignments and the reviews are collected, and they form part of the basis for the leader's evaluation of the students' performance that day.

Learning organic chemistry is structured so that state-of-the-art information from the primary literature can be presented to novice students on examinations. This assures us that we are true to the facts of science and not simply inventing trivial derivatives of classroom examples. We include the citation along with some contextualizing statements, which sends two messages to our students: (i) memorizing the previous examples is not enough, and (ii) understanding the subject matter of the introductory course lets you understand some of what chemists actually say about what they study. The context of these problems has a great deal of intrinsic interest or relevancy because many examples come from medicinal and pharmaceutical chemistry or materials science.

Documentation and Reflection: What Information Do You Keep To Document Student Learning, and How Do You Use It?

Documentation of teaching and learning, usually via a portfolio, is relatively new in higher education. Increasingly, interviewees need to present evidence from their graduate teaching experiences while looking for jobs, and most assistant and associate professors need to do this for promotion. Even if you have never kept anything more than a grade book and end-of-term surveys to represent teaching and learning in your courses, you might soon need to collect, select and assemble artifacts from your teaching in order to create a more documented picture of your classroom work. More than that, it is useful. Documentation should be gathered over time with a sense that the narrative you are constructing gives evidence of your goals, methods and assessments. An important text piece is the running commentary, or reflection, that you should keep on your experiences and your practices. By annotating the

artifacts that you collect in the context of your overall instructional plan, you can build a case for the strategies you use and simultaneously identify targets for improving your work. Once you start the habit of writing reflections, you will recognize these to be as valuable to your teaching as keeping a laboratory notebook is to your research. As with a laboratory notebook, the notes you keep about your teaching are used precisely to preserve crucial information and ideas that can be too soon forgotten when the time comes to modify or repeat an experiment.

- What have you learned from examining or analyzing student work about your own teaching, or about student learning, that you have fed back to your instructional practices?
- What have been some of the most profound impacts on you as an educator, and how have they affected your teaching?

I have also seen the profession from the perspectives of both administrator and teacher, and from the advantage points of more than one discipline. No matter what I am teaching, the bottom line for me is to make my classes relevant and accessible to a diverse student population. (Newitz, 2000)

As a mathematics teacher, I am personally interested in my students, both in their mathematical endeavors and in their academic career as a whole. (McAllister, 2000)

I used to think that student errors resulted only from their inability to use the correct set of rules correctly; in other words, that they were behaving with inconsistency. I have learned, however, that student errors can be a consequence of their constructing an incorrect set of rules that, when properly deployed, gives solutions that sometimes overlap with the correct rules and sometimes not. Uncovering these student-generated rules makes each new interaction with a student another intriguing mystery to solve. This strategy, which I uncovered by working closely with students in the first place, let me know that errors can also be the result of consistency.

How Is the Statement of Teaching Philosophy Used?

A statement of teaching philosophy has many uses, and these depend on why the statement is being written, who requests it and who might eventually read it. As with any piece of writing, your teaching philosophy will reveal you as a person, your values, your style and your experience. Are you sincere? Do you have integrity? Are you dogmatic and opinionated? Are you thoughtful and fair? A well-crafted statement will reveal your character.

A statement of teaching philosophy is

- **Personal.** It is an individual narrative that should complement the other sources of information available about you. It should give the reader a glimpse into your motivations and practices as an instructor and your sense of values regarding teaching and learning, and it should do this honestly and sincerely.
- **Metaphorical.** When you do not have the breadth of shared experience, or even the language, to describe something to an unfamiliar audience, metaphor is a useful strategy. Because your writing will reveal your self to a reader, searching for a shared cultural experience will allow your reader to connect with your thinking.
- **Political.** Like the other information

you provide to a department or an institution (curriculum vitae, cover letter, research statement, promotion and tenure documents), the statement may be used for decision making. You should be able to defend any assertion or idea in your statement if called upon to do so. Your institution might also begin to require these statements as part of your annual review process, or as a way to build a more comprehensive sense of a faculty about teaching and learning.

- **Professional.** Documentation of your scholarly progress in thinking about teaching and learning issues is becoming an expected part of a faculty member's life. Because codifying your thinking at a moment in your career allows you and others to step back, react and reflect on it, it can carry the same impact as writing in any other part of your scholarly work. A statement of teaching philosophy is the most common organizer used to introduce a course or teaching portfolio.
- **Pedagogical.** By externalizing your thinking, and particularly by sharing it with others, you are compelled to think differently about your teaching. Resolving internal inconsistencies and clarifying your thinking always happens when you write down your ideas. (This is why we value the role that editors and other reviewers play in our work.) Once you have a statement, it will inevitably begin to shape the discourse in your classroom. As you write down and refine your thinking, you will want to share these ideas with students so that they can better understand your goals, your methods and your mode(s) of assessment.
- **Reflective and iterative.** Inevitably, you will have cause to return to your statement, perhaps because you are asked to by your department or administration, or perhaps you will simply need to modify your statement as a normal consequence of reflective practice. Either way, any statement of teaching philosophy should be seen as a work in progress.

What Is the Structure of the Statement?

There is no consensus about the structure and content of a statement. Some institutions are providing their faculty with guidelines, while others leave it to the sensibility of the author. By examining the literature on teaching philosophies and analyzing a large number of statements that are available, we have crafted the following guidelines.

A statement of teaching philosophy should be

- between one and two pages long,
- a personal narrative,
- evidence of your sincerely held beliefs,
- representative of your experience and practice,
- a showcase for your strengths,
- a place that points to directions in your future growth, and
- an effective abstract for your teaching portfolio.

If you answer the questions detailed in the earlier sections, you will end up with more than one or two pages of text. That is good. You can use this long document as the starting point and edit it to a reasonable length. You will want to try to keep all of the information, but that will not be possible within the constraint of one or two pages. Study the information, draw together parts that fall under the same principles and begin to see the commonalities in your work that you might not have otherwise known existed.

The following elements are suggested as a starting point for a statement of teaching philosophy.

Title. Identify yourself and the document, even if it is "Statement of Teaching Philosophy for Professor Leslie Jemail." You might also use a creative title that represents your philosophy, such as "The Value of Teaching in Learning: A Statement of Teaching Philosophy by Professor Leslie Jemail." If you publish your statement at a Web site, it is a good idea to include your institutional and contact information.

Quote (optional). A well-selected quotation can provide the reader with an early insight into your thinking, and this can be as powerful as a good metaphor. The quotation can be either an aphorism (proverb, maxim, saying, etc.) or a longer passage from another text that has inspired you or that represents a useful insight into your principles. You should include enough of a citation so that the reader can identify the source.

Thesis statement. In one to three declarative sentences, set out your principles. Like a good thesis statement, the rest of your statement should be geared to reinforcing these principles as a matter of evidence and example. Sometimes it makes sense to set out your propositions as questions. If so, you must make sure you answer them clearly.

Narrative. Depending on how you see the answers to the questions in the first part of these guidelines, there are different organizational styles you can use to tell your story. One of these organizations might follow the three to six different principles on which your thesis statement is based. In the main part of your state-

ment, take each of the main principles (perhaps set out as an ordered list that follows the thesis statement) and explain them, in order. Each principle will need to be elaborated upon. Restate the principle in basic terms and then explain what it means to you.

Throughout this discussion, you should try to think of a discipline-based example that illustrates your idea—perhaps a short snippet from a classroom event or a passage that comes from your reflective writing. Include, as needed to make your point, the kinds of assessment, documentation and reflection that follow from or support the teaching principle that you are advocating.

Another organization might be the categories used in the first part of these guidelines (Theoretical Framework, Goals, Design and Implementation, Assessment and Evaluation, Documentation and Reflection). Yet another might be to integrate these under categories of instructional interventions (Introductory Undergraduate Teaching, Upper Level Undergraduate Teaching, Undergraduate Research, Graduate Teaching, Graduate Research).

Remember that a reader is interested in understanding you and your position, in language that is accessible and with examples that make good sense. Readers will also look for alignment, or congruence, in the different parts of your statement as a way to judge your own internal consistency, the thoughtfulness with which you have constructed your statement and as a clue to the sincerity with which you take your teaching.

Summary. Reflecting back from the thesis statement and through the evidence you provide in the narrative, the reader should now have a rich understanding of your teaching philosophy. What are the one to three main messages that you hope a reader of your statement will take away? Here is the opportunity to make the point that will stick in the minds of your readers.

Where Can I Get Good Advice for Writing a Statement?

Build your general literacy about teaching and learning. There are many books and articles written about education and specifically about chemical education. *The Journal of Chemical Education* is published by the Chemical Education Division of the American Chemical Society, and *The Chemical Educator* is an on-line journal published by Springer-Verlag. For readings and advice about higher education in general, there are a number of national organizations to consider: American Association for Higher Education, The Association of American Colleges and Universities and The Preparing Future Faculty Program are all useful resources.

Consult with a teaching and learning center. Centers for teaching and learning, or teaching excellence, can be found on most campuses today. They can provide numerous resources to individuals, often including the opportunity to set up campus-wide workshops on writing statements of teaching philosophies! If your campus does not have such a resource, or even if it does, you can also find a variety of useful on-line resources provided by teaching and learning centers at most of the major institutions in the world.

Read some teaching statements. As described earlier, some of these guidelines were developed by examining and analyzing actual statements written by faculty members who had published them on their Web sites.

Share and critique. Do not work in isolation. Share your statement with others (that is the idea, anyway!). If you are not part of a group that is willing to do this with one another, then rely on friends whom you trust to give you honest, constructive feedback.

Write reflective pieces on your academic experiences. If you have not done so, begin to keep an academic diary on your computer. What things have your tried in the classroom, and how have they turned out? What do you think about your own experiences as a learner? If you work in an open intellectual environment, ask permission to visit classes being given by others (faculty and graduate students alike), then take notes and create questions for that person. Invite them out for coffee and ask them your questions.

Write more than you need, and edit. With the goal of 1–2 pages, your statement might start out as 8–10 pages if you answer thoroughly all of the questions posed earlier in these guidelines. Answer all of these questions in the first round of writing, and edit a copy of the document. You will find that the longer answers and examples can be a good starting point for other writing and thinking about your teaching.

Write in a personal way. Your statement is a first person narrative, not a journal article on teaching and learning. Make sure your readers are going to understand you. If they know you well enough, ask your critic-readers whether what they are reading accurately reflects their more intimate knowledge of who you are.

Do not try to be perfect or complete. A statement of teaching philosophy is always a work in progress. Every new teaching and learning situation has the opportunity to impact your statement because of the new experience. Your statement should be a simple, declarative position statement of who you are as a teacher at the moment you write it.

Include the future. Everyone should acknowledge areas where they need to learn and to grow. Do not hesitate to include any new actions and areas of

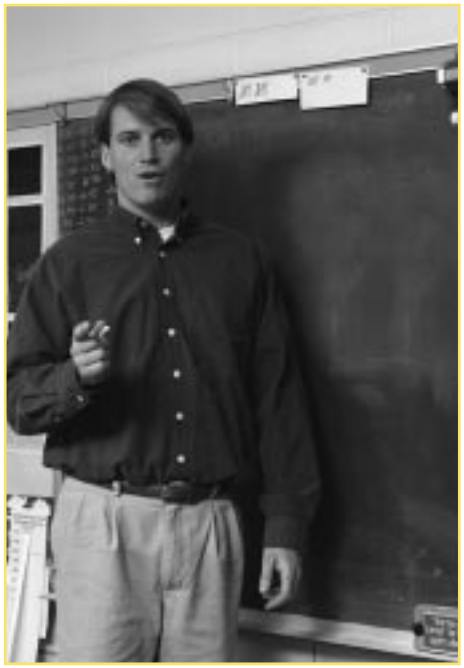
interest that have resulted from your experiences. Be careful, though, not to overemphasize your ignorance of something that might be a reasonable expectation for you to know. Addressing the future is best in terms of an action plan.

Be informed about your audience. This simple principle of good writing cannot be ignored. The statement you write for a job application might differ from institution to institution depending on the aspects of yourself you want to emphasize. Certainly, constructing a statement for personal use will differ from one that is requested from the institution in order to obtain employment.

Consider "hot button" areas carefully. Be aware that departments and individuals may have had varying levels of success with novel teaching strategies such as group learning, teaching modules, instructional technology and the lectureless classroom. As in research, if you choose to highlight your advocacy for controversial ideas, you should also be prepared to polarize some audiences and to engage in some lively discussions with your detractors.

Avoid technical terms and jargon. Be aware that most of your audience will not have a background that will allow you to use many terms from educational psychology or educational theory. If you do, be sure that you know what the ideas are and explain them carefully as part of your text.

The most important audience for your statement of teaching philosophy is yourself. Because we all have teaching philosophies, writing these down makes us understand ourselves better and can hopefully improve and refine our skills as educators. If you can share your statement in an open, critical environment, then it can also become a catalyst for meaningful conversations about teaching and learning in your discipline and in your institution. If you work with students at any level who aspire to be professors, and who have participated in any kind of teaching activity, encourage them to begin the life-long habit of reflective practice that writing a statement of teaching philosophy can inspire.



References

The articles by Goodyear & Allchin and Chism are a good introduction to the literature on writing a teaching philosophy. Peter Seldin is a preeminent author on the use of teaching portfolios. Among numerous books on higher education, the texts by Brookfield and Weimer are a good introduction to the area. Parker Palmer's *The Courage to Teach* is a worthwhile starting point for considering your identity as a whole faculty person.

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Reimer, J. A., 2000. (Chemical Engineering, University of California–Berkeley) (http://reimer2.cchem.berkeley.edu/teach98.html)

Wallace, R. L., 2000. (Biology, Ripon College)

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The following journals and professional organizations are of general interest to chemistry education and higher education in general.

The American Association of Higher Education (AAHE)
http://www.aahe.org

The Association of American Colleges and Universities (AACU)
http://www.aacu.org

The Carnegie Foundation for the Advancement of Teaching (CF)
http://www.carnegiefoundation.org

The Chemical Educator (published by Springer-Verlag)
http://journals.springer-ny.com/chedr

The Journal of Chemical Education (published by the Chemical Education Division of the American Chemical Society)
http://www.chem.wisc.edu/

The Journal of College Science Teaching (National Science Teachers Association)
http://www.nsta.org/pubs/jcst

The Preparing Future Faculty Program (PFF)
http://www.preparing-faculty.org

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