

Responses to Guiding Questions for Faculty

Workshop on Education Research Positions in STEM Disciplinary Departments

From Jennifer Lewis, Department of Chemistry, University of South Florida

Respondents:

1 Professor in a department with a Masters program

2 Associate Professors in a department with a Doctoral program (one allows chemistry graduate students, one does not)

2 Associate Professors in departments with no graduate program

1 Assistant Professor in a department with a Masters program

1. What are your responsibilities for teaching, research, and service? (e.g., teaching loads, courses, coaching/mentoring roles, types of research, liaison roles with education department)?

Teaching loads were always discussed in context of departmental norms (see below for a few comparisons). Although the respondents did not say this, the degree to which chemistry faculty are located at institutions which have relatively high teaching loads affects the field on a national level in terms of the relative lack of time for research. Most of the respondents in this group were teaching at least three courses per semester, although that might involve two sections of the same course and an associated laboratory. Two were teaching fewer than that.

All respondents have at least some role with respect to teacher preparation, including formal joint appointments with departments in the college/school of education, dealing with NCATE, teaching science methods courses, advising science education majors, and organizing and/or supervising student teachers. One respondent did all of these things, one did only one of these things. Most did two or three.

One faculty member in a small department conducts both science research and education research as necessary to meet the needs of research-interested students. All conduct education research, but one focuses on outreach and curriculum development rather than on research per se.

2. In what ways (if any) do your responsibilities differ from your non-education focused colleagues?

Respondents had quite a lot to say on this issue, ranging from one respondent's careful "I nominally have the same responsibilities as any other faculty member EXCEPT my appointment had additional service written into the contract" to a five page list of extra responsibilities associated with teacher preparation alone.

In no case did respondents believe that their colleagues had similar responsibilities. One respondent surmised that this might be so because

“Some aspects of the [education] positions had been created by people who created the roles ‘after’ they were hired/tenured for other things. This makes a fresh hire into the position different, because getting tenured on chem. ed is different from switching to chem. ed after tenure on something else. The service load is what we seem to be primarily struggling with at the moment.”

In fact, respondents uniformly referred to a higher service load, which was noted as an issue in terms of lack of departmental recognition:

“service is at the end of our list (research or scholarship, teaching, service)”

Teaching loads were also an issue, in three ways:

1) same number of contact hours, but more service courses

“Most of the sub-disciplines in my department have at least two faculty and they try to rotate about every two years so that everyone alternates teaching in ‘service courses’ with teaching the courses in their specialties. We do not currently have upper-level chemed courses [so we rotate between service courses]”

“Even though we have created a chemical education graduate seminar and graduate course, I have never been able to offer them since we don't have sufficient faculty in the dept. (Because of retirements and other attrition). So I have only taught large intro courses or our graduate orientation course.”

2) overloads if courses relevant to the research area are to be offered

“My teaching load is similar to other faculty although the chem. ed course is the only advanced course besides research that is not given load for”

3) expectations for quality of teaching/coordination

“I ended up doing a lot more testing and writing of grading keys and lab modifications than the coordination usually involves.”

3. What positions have you held and do you currently hold in your department?

General Chemistry Coordinator
General Chemistry Laboratory Coordinator
Coordinator of Secondary Science Education
Director of Undergraduate Studies (departmental)
Director of Center for Teaching (campus wide)

4. In what ways (if any) do your current position and your career prospects differ from your non-education focused colleagues (e.g., title and rank, paths to tenure, resource issues, joint appointments with other departments)?

None of the respondents reported differences in access to tenure, but promotions post-tenure were seen as more problematic due to

1) mixed messages/confusion about appropriate scholarship in education

“My promotion was supported although the scholarship of teaching was less supported as research/scholarship by the VP compared to my dean. Publication and more ‘research’ was expected for my next promotion.”

“My department and colleagues still struggle with chemical education research and scholarship. For example, I have been involved with several books. By some of my colleagues standards, textbooks and books about teaching are teaching activities not scholarship.”

2) service responsibilities

“My service load to deliver, maintain the program etc. is huge compared to my colleagues and yet is in reality less than 5% of what I would get judged on for promotion.”

3) lack of recognition for within-field reputation and accomplishments

“My visibility at the national level means little to my colleagues. The fact that I serve on national committees, get invited to NSF conferences, have been a [well-known conference] speaker is lost on them--it literally has no impact.”

On the other hand, two respondents commented that they have been regularly asked to apply for positions outside their institution, and that their mobility in that sense may be greater than that of their colleagues.

Resource issues also garnered several comments.

1) The majority of respondents in departments with graduate programs reported diminished access to graduate students as compared to their colleagues, which affects research productivity:

“It is also generally harder for us to recruit students to do research with us, since many chemistry students prefer traditional lab work that they see as more job-related and most education students are too busy with student teaching to consider research.”

In one case, a respondent has addressed this differential access issue by obtaining graduate research students via affiliate status with another institution.

2) Access to internal funding for *research* (rather than for teaching or for curriculum development) is also an issue:

“I get caught in accessing the university's established funds to assist in research, the funds allocated to 'non-science' types are not open as I am in a science department, the funds for the science faculty are not open because I do not conduct scientific research.”

“We have access to the same sources of support as other types of chemists, including travel money, internal grant competitions for teaching and research, etc. There is some scuttlebutt that it is harder to succeed in the research funding competitions with science education, for the usual reasons of cross-discipline work, uninformed committees, and internal politics, but I am not sure how accurate that is. Personally, I have been successful on internal joint and individual teaching grant competitions, but unsuccessful on an individual internal research competition.”

5. To what extent and how does your department (or school or university) support your position and your research (e.g., financial support, cultural support, etc.?)

Four of the respondents were generally positive, though this was tempered:

“The culture in our dept is to be self-sufficient. There are few, if any, communal resources. But I am treated like all others.”

“There are a lot of educational initiatives going on right now on campus so release time seems available. Sometimes it doesn't work out as well as one might like.”

“My department and university are both very supportive of my position and my research. The provost at the time I was hired was very interested in issues of teaching and learning and actively encouraged disciplinary research into teaching learning. The university has been willing to provide matching funds for CCLI grants, and I have received additional funding to develop grants. The cultural support has been mixed. Some faculty in the sciences (not chemistry) aren't convinced that educational research is really disciplinary research. However, in general, my research has been well received.”

“I think culturally there is a split personality. Teaching is very highly regarded, and education research is at least somewhat respected, but the split position causes some difficulties. Within the department, there are some people who are strongly supportive and some who (I think) are strongly against but not that openly at the moment.”

Two others were less so . . .

“The consensus is that it is important to have [faculty involved in teacher preparation] in the content departments, but we are not staffed or supported to the level of our colleagues in the School of Education (who are by no means overwhelmed with riches!!)”
(This respondent also referred to “intellectual isolation” with respect to research.)

“I seemingly get put in charge of the crap work no one wants.”
(This respondent also referred to lack of recognition for a successful research program marked by publications and grants.)