AC 2012-5061: EXPLORING THE DIVERSITY IN FACULTY CAREERS: FORMATIVE AND SUMMATIVE ASSESSMENT IN A PREPARING FUTURE FACULTY COURSE

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Exploring the Diversity in Faculty Careers: Formative and Summative Assessment in a *"Preparing Future Faculty"* Course

Abstract

Doctoral students' understanding of the diversity of careers in higher education is an important component of their career development. During their doctoral study, emphasis is placed on research and coursework. Additionally, doctoral students are mentored during this time by research-focused faculty. However, many faculty positions across the nation are not research-focused and it is important to provide doctoral students with an understanding of the diversity of faculty careers available to them. Preparing Future Faculty is a course designed to facilitate doctoral students' exploration of the diverse faculty careers available to them. Preparing Future Faculty explores faculty roles and responsibilities as they relate to institutional missions and institutional types (community colleges, liberal arts colleges, research I universities, etc.). Topics include faculty roles and responsibilities, the academic job search and hiring process, promotion and tenure, diversity in academia, disciplinary paradigms, assessment, and balancing academic and personal life. Using Purdue University as a model, students explore faculty roles and responsibilities through conversations with Purdue administrators, faculty, and alumni. The course culminates in the development of an academic portfolio which includes job search documents (CV, cover letter, teaching and research statements), and a conceptual framework with strategies that facilitate the transition from graduate student to assistant professor. This paper discusses the formative and summative assessment that occurs throughout the course in relation to the three missions of research, teaching, and service.

Project Significance

Doctoral education has received many criticisms including time-to-degree, completion rates, and that doctoral students are not prepared for career opportunities within the academy[1-4]. A major concern is that doctoral students are not prepared for and lack understanding of the various higher education institutional types and missions[2]. Faculty roles and responsibilities vary based on institution type such as community college, liberal arts, or a research university, resulting in varying expectations of faculty roles and responsibilities and expectations of excellence in research, teaching, and service.

Socialization

Doctoral education plays a central role in preparing doctoral students for careers as faculty members. Doctoral students are first socialized to faculty careers during their graduate studies, where they begin to develop their expectations, perspectives, and understandings of faculty roles and responsibilities[5,6]. Doctoral education is built on an apprenticeship model that focuses on the relationship between the doctoral student and the faculty research advisor. Thus, much of what doctoral students learn about faculty roles and responsibilities during their doctoral education stems from observations of a few faculty members and an apprenticeship to a research advisor within one discipline in a research environment[5]. This type of preparation is not inclusive of the faculty opportunities that are available from the many different types of academic institutions. Career preparation for faculty options should employ a mentoring network.

Mentoring

The apprenticeship model of graduate education focuses on a one-to-one relationship between a student and faculty member. To encourage exposure to the broader range of faculty career opportunities available, a multiple mentoring framework is desired [7-9]. Faculty careers are changing based on environmental factors such as economic issues, requiring multiple mentors for faculty success [9,10]. Based on the literature, summarizing the elements discussed, Purdue developed the *Preparing Future Faculty* course.

Methods

Preparing Future Faculty is a two credit hour course, which utilizes a Pass/No Pass grading system. Students meet weekly for two hours for a mentoring session with vice provosts, deans, and department heads. PFF explores faculty roles and responsibilities as they relate to institutional missions and institutional types (community colleges, liberal arts colleges, research I universities, etc.). Topics include faculty roles and responsibilities, the academic job search and hiring process, promotion and tenure, diversity in academia, disciplinary paradigms, assessment, and balancing academic and personal life. GRAD 59000 is posted to the academic transcript but cannot be used to fulfill Plan of Study requirements.

PFF aims to socialize doctoral students to the diversity of faculty roles and responsibilities along with the expectations of excellence in research, teaching, and service through a mentoring model using a conceptual framework which incorporates research, teaching, service, career planning, and career and life balance, to guide student exploration and reflection. Using Purdue as a model, students customize the framework with mentoring tips and strategies learned from the speakers. In addition to representing different roles and positions at Purdue, each speaker represents various broad disciplines.

- Identification of the various types of higher education institutions (community colleges, liberal arts colleges, research I universities, etc.), and an exploration of how faculty roles and responsibilities differ at each of these institutions.
- Presentations by invited vice provosts, deans, and department heads on institutional expectations of faculty in fulfilling institutional missions and how faculty are impacted by these expectations.
- Presentations by invited PFF alumni, new faculty at other institutions, who will share their personal experiences on the academic job search, starting a faculty career, and navigating the pre-tenure process.
- Identification of the skills needed by faculty and the resources available to graduate students for faculty skill development and enhancement.

The course culminates in the development of an academic portfolio which includes job search documents (CV, cover letter, teaching and research statements), and a conceptual framework with strategies that facilitate the transition from graduate student to assistant professor. This paper discusses students' feedback in relation to the three overarching components of via online discussions.

Qualitative analyses were based on students' responses to four different sessions. These four different sessions were as follows: *Discovery Mission; Learning Mission (Undergraduate Education); Graduate Education; Engagement Mission*. They covered three major topics, namely research (*Discovery Mission*), teaching (*Learning Mission* and *Graduate Education*), and

service (*Engagement Mission*). Within each of these sessions, an external expert on the particular subject was invited to speak to the student.

Students' feedback was collected via an online discussion board. In this paper, the researchers analyzed students' responses to one online discussion question. The question asked, "Based on what you learned from this week, what specific actions will you implement to advance your professional development?" The purpose of this question is to understand the students' action plan after they are exposed to the key ideas within each of the missions of a future faculty member.

Responses from each session were read and re-read by the researchers. Student responses to discussion questions served as the primary data in understanding student learning outcomes in terms of their action plan development and implementation.

For data sources, ninety-six students were enrolled in the course (27 out of 96 students were auditors, their responses to discussion questions were optional). Together, the researchers analyzed 252 responses to this question across four sessions (Discovery Mission, 74 responses; Engagement Mission, 63; Graduate Education, 59; and Learning Mission, 56). A few students did not respond to some of the discussion questions for these sessions.

Open-coding is an analytical process to fracture and label the data to obtain a more abstract representation of qualitative data[11]. Open-coding was used for the four sessions in which invited talks covered the three major missions of a faculty member. Once the open-coding was completed, the coded responses were grouped into different major categories to identify the main themes of the action plan development and implementation of PFF students.

Results

Our research focused on a qualitative analysis of students' responses to the discussion question - *"Based on what you learned this week, what specific actions will you implement to advance your professional development?"* Analyses indicated that distinct themes emerged from qualitative data for the three major missions (research, teaching and service) for faculty members. For each of the sessions analyzed, our findings suggest that the students devised different action plans based on each of the four sessions, i.e. *Discovery Mission* (Research)*, Learning Mission* and *Graduate Education* (Teaching), and *Engagement Mission* (Service). The major findings under each mission will be discussed as follows in terms of students' action plan development or their learning outcomes.

Discovery Mission **(Research)**

From our qualitative analysis, the key points that emerged were seeking external funds, proposal writing, and establishing and building more collaborations, especially potential contacts from different disciplines. Most students indicated that they would like to learn more about proposal writing, start writing a proposal or practicing proposal writing with their advisors or in their courses. Students indicated that their awareness level about the significance of finding collaborations and working with people from other disciplines was raised after this particular session on the discovery mission of faculty members. Recognizing the pressure on faculty

members, some students indicated that they realized the importance of allocating time for thinking and also staying informed about the most recent findings in their fields.

To illustrate the main points here, we quote some students responses as follows.

In talking about their understanding on research collaboration, a student responded that their next step was,
"Collaboration - It seemed amply clear that more collaborations are the way of the future. As a theorist, it made me think hard about collaborating with experimentalists in the future and now, during my graduate studies."

When talking about the change in their thinking about writing a proposal, a student commented,
"'write something when you are into proposal writing'. I think this really is true. If time is taken until it appear to be a ground breaking idea, it may be a long non productive period and may also be a complete waste of the time spent on the task. I have always noted that when I start writing (or typing) I see the connections between my random thoughts. This brings more clarity to my original thoughts and eventually lead to a more profound proposal."

Learning Mission and *Graduate Education* (Teaching)

Learning Mission (Undergraduate Education)
Based on our qualitative analysis of students' responses, the awareness level of the significance of undergraduate education was raised after this session. Most students indicated that they would like more information about the undergraduate students' profiles or undergraduate education in their job searching process. Several students expressed interest in engaging undergraduate students in research either now or in their future positions as faculty members. Some of the students would also like to be engaged in mentoring undergraduate students. Finally, most of the PFF students would like to obtain more information about improving teaching skills or becoming engaged in activities that will allow them to practice their teaching skills.

Direct quotations from students are included here to highlight the students' action plans after the particular session on Learning Mission (Undergraduate Education).

In terms of engaging undergraduate students in research, a student indicated that,
"I really want to start thinking about potential research projects I can do that involve undergraduates because it is an important component of teaching and something that I haven't thought a lot about."

In terms of obtaining more credentials or experiences in teaching, a student said that,
"What was extremely valuable to me is learned more about the Center for Instructional Excellence. I know I need to improve my teaching portfolio and this discussion gave me some great ideas to do so. "

Graduate Education
From our qualitative analysis, students seemed to be motivated about the key aspects of graduate education. Their awareness of the importance of an advisor in graduate students' process

throughout his/her career was raised. Students indicated their interests in learning more about mentoring skills, documenting good mentoring practices and avoiding negative characteristics of unfavorable mentors. Some students also expressed their concerns towards the pressure in finding external research funds, which is an essential part of a faculty member's life, especially in research intensive universities. Finally, students were more aware of the significance of writing about research or publications in faculty members' life. They also plan to use appropriate measures or seek help in protecting the copyright of their academic publications.

To help illustrate the main ideas of the PFF students, some quotations from the students' responses are listed as follows.

In talking about being aware of good mentoring practices, a student commented that:
"*Since I have an advisor who is implementing a very good method that keeps a strong relationship between his team members and after what I have learned from this lecture, I will focus on the way my supervisor implementing his method rather than enjoying it.*"

A student indicated that in future faculty life, this student will make an effort to-
"*Maintaining good communication with the graduate students*" and "*clearly setting up the expectations and rules.*"

Engagement Mission (Service)

From our qualitative analysis, most students seemed to be more aware about the area of engagement mission of faculty members after this session. They indicated the interest to seek more information about service or engagement opportunities either now or in their future position. They were also very motivated about building connections among different functions of faculty responsibilities, i.e. research, teaching and service. Students talked about writing proposals that would have a practical impact in community. By engaging with the community, it will in turn promote public understanding of the importance of their research.

Here is a quote from a student about bridging research, engagement and also mentoring of students.
"*I think I will look for ways that I can include engagement in my future research so that the public will know the importance of my research. I will also look for ways that my future students can be engaged in projects that will impact the community in a positive way*"

"*The link between my career and engagement activities is very clear. My current research significantly contributes to community engagement, since I am focusing on the Hispanic women working experiences in the United States. I look forward to enhance their experiences and create more inclusive organizational environment.*"

Concluding Thoughts As seen from our qualitative data analyses and findings, our sessions from invited talks covering the framework of faculty's three missions, i.e. research, teaching and service, have enhanced the overall awareness level among the graduate students. Practical action plans to address key aspects within each mission were also noted. Considering the current challenges facing graduate students in transitioning into professional roles as future faculty

members, the PFF course adopted here can serve as a model in facilitating the preparation and transition of graduate students for the diverse roles and functions of faculty members. Noting the patenting value of this course, we are currently exploring further methodologies or techniques to increase its impact in the professional development community among graduate students. Meanwhile, we are also exploring alternative perspectives to further understand the roles and functions of faculty members in order to further the preparation of graduate students as future faculty members.

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