

Improving Post-Secondary Teaching: Teaching the Future Professor Pedagogy

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Introduction & Program Description

There is a general assumption in higher-education that research-focused instructors are not as good in the classroom as teaching focused faculty. Figlio & Shapiro (2015) found that faculty with both focuses are recognized as being inconsistent. Hoffmann and Oreopolus (2009) indicated that a correlation exists between students' expectation of effectiveness in teaching from their faculty and their success in the class. Research Priority 5 of the American Association of Agricultural Educations' Research Agenda speaks to the need for the development of a continuous human capital pipeline from secondary through post-secondary to improve agriculture education at all levels (Thoron, Myers, & Barrick, 2016). Preparing effective future faculty in the agricultural sciences is important in the effort to train future agricultural scientists, not only in the direct implementation of this program, but also in the training of future students in their classes (Committee on a Leadership Summit to Effect Change in Teaching and Learning, 2009).

Institutions, students and parents are expecting an increase in teaching ability in higher-education (Austin, 2003). No longer, does research expertise mean that you will be a successful faculty member (Austin 2003). An emphasis on both teaching strategy, as well as research, defines the academic job market. Faculty members experience tensions between research and teaching expectations that has characterized professorship at institutions of higher education (Austin, 2002; Lewindowsky & Purdy, 2001). Yet, doctoral preparation continues to remain heavily focused on research preparation, with little emphasis on pedagogical practice (Price & Cotton, 2006). This need to prepare future faculty in the College of Agriculture and Life Sciences lead to the development of this program.

The educational effectiveness and outcomes of the program were evaluated. GTS is a three-year cohort program that aims to develop pedagogical skills in selected PhD students in the College of Agriculture and Life Sciences at Virginia Tech. Scholars in the first year observe their mentor teaching, in the second year they co-teach or TA, and in the third year take on the responsibility as Instructor of Record. The Scholars also maintain their own research responsibilities in their academic departments while also attending a weekly class session on pedagogy, enroll in the Universities three-class Pre-Professoriate Certificate, and complete an educational research project.

Theoretical Framework

The Virginia Tech Graduate Teaching Scholars (GTS) program was designed around an experiential learning model. This experiential approach is also supported by strong relationships. This combination of experience, expertise and relationships in educational practice is supported by a Communities of Practice (CoP) framework. CoPs are the reification of the theories of social structure, theories of practice, theories of identity and theories of situated experience in the context of social theory of learning (Wenger, 1998). In practice, CoPs are groups of individuals with differing levels of expertise engaging with each other to improve their skills in varying levels of formality. Members of CoPs are people who share a common interest around learning that organize, whether, organically or formally, to fulfill both individual and group goals (Wenger, 1998). Thus CoPs foster best practices over an extended period of time and exist within the real-world that participants live. CoP's are differentiated from a team because of the

ongoing interaction of the participants over a period of time, investigating the same interest.

Methods

Focus-groups and individual interviews were conducted with current program participants, the Scholars ($n=5$), program alumni ($n=5$), faculty mentors ($n=4^*$), and administrators ($n=5^*$) over a three-week period in the Fall semester of 2016. The asterisk denotes that an interviewee had been both a faculty mentor and serves as a Department Head. The total number of study participants was 18. Experience by the program participants ranged from having completed the first year in the program as a current participant to having graduated the program and working in their current position for almost a year. Audio recordings were transcribed verbatim. Transcripts were line-by-line open coded. Codes, analytical memos and field notes were then used to develop themes.

Results

Five main themes emerged. Theme 1. Participants Perceptions and Experiences of the Components of the Program has five sub-themes: Three-year program, weekly sessions, experience of teaching, research component, and mentors. In Theme 2. Recruitment & Finding Successful Scholars it was recognized that matching participants interest in teaching and career goals with the program objective was important. Additionally, there was an acknowledgement that it was an important motivation for participation that the program providing half of the Assistantship. Theme 3. Development of Community of Practice describes the relationships fostered among cohort members, between participants and faculty mentors, and, those among many additional individuals through the research component. Many relationships even continued even after the program was completed. Theme 4. Preparation for a Career in Academia describes the tension that program participants experienced between research and teaching requirements, the mental emphasis that teaching took when instructing, and the responsibility that comes with being the instructor of record. Theme 5. Areas for Improvement describes the need for consistent and formalized feedback, and the mentor role and responsibilities needed to be clarified for the faculty mentor and the participants, additionally the participants expressed a desire for a balance of theoretical and practical teaching application in the weekly class discussion.

Implications & Recommendations

The GTS program is an intense program for individuals who want to become excellent higher-education teachers. Because of the intensity, this type of program is not right for every PhD student. It is an excellent preparation for those who do want to have a heavy teaching appointment or have an innate desire to be an excellent teacher. The development of positive and long-term relationships within the cohort, and among the many individuals involved in the program was important for enhanced learning and development of efficacy. The three-year cohort was found to be a unique program model that allowed for participants to grow into their ability. Additionally, it was recognized that being a Teaching Assistant was not enough preparation to become an effective lead instructor as a graduate student, nor as a professor. Serving as an instructor and feeling the responsibility of the students needs and classroom management was important for developing teaching efficacy in conjunction with mentoring and the support from the group. A recommendation from the findings are that the faculty mentoring relationship was important for the Scholar. In order to maximize this affect, the role, responsibility and support for the mentor needs to be clearly defined to make it effective.

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