Synthesis of STEM Department Chair Interviews

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In the fall semester of 2017, graduate intern Taylor Hanley conducted an environmental scan in the form of a survey to gain a better insight as to what opportunities and challenges existed for STEM faculty in regards to faculty development. The limited responses that were received showed some intriguing results which prompted the request for further insight. In the spring semester of 2018, Dr. Cindy Lee and graduate intern Nick Sydow followed up to the 2017 scan by conducting brief 30 minute interviews with four department chairs from various STEM fields at Clemson University to gain insight into what STEM faculty development might look like in the areas of research, teaching, leadership, and service. With the findings from the interviews, our goal is to develop some faculty development opportunities/solutions that could be accessible for all STEM faculty, or at least faculty development opportunities that cater to the needs of each respective STEM department on campus. In the following paragraphs below, we have synthesized our findings from our interviews with department chairs in an effort to give a concise breakdown of what STEM faculty development currently looks like at Clemson University in each of the four areas of research, teaching, leadership and service, as well as an overview of faculty development ideas for future implementation.

Research

When speaking to Department Chairs about the area of research, one of the biggest focuses for STEM faculty development surrounded the idea of grant writing. From the environmental scan it was noted that there wasn’t much support for teaching STEM faculty how to write or manage grants and grant budgets. In our interviews, most department chairs indicated that they expected STEM faculty to have gained some amount of experience with grant writing in their graduate school/Ph.D. work prior to onboarding as a faculty member. With this expectation set, department chairs noted that not all STEM faculty came in with preexisting experience with grant writing, and thus were requiring support in order to win grants and manage them.

At large, there are no formalized grant writing opportunities or workshops built into the professional development plans of STEM departments, which requires a mix of outsourcing or internal finesse. Some department chairs were able to bring in outside resources for teaching faculty how to write grants, or at least encourage faculty to go to NSF for professional development on grant writing, or take advantage of on-campus grant writing workshops. A couple department chairs noted that something that has benefited their onboarding junior faculty was the organic partnerships that developed between senior faculty who volunteered to mentor junior faculty on how to write grants. Departments that didn’t do this noted that they would find value in formalizing a mentorship practice between onboarding faculty and senior faculty.
Teaching

The area of teaching broke down into two large components for STEM faculty development: cross-curriculum collaboration between departments and teaching to large class sizes with not enough faculty. While there is interest in cross-curriculum collaboration between departments due to overlap in material or the interest in creating classes that blend from different focus areas, for example Math’s Collaboration with Management, department chairs noted particular roadblocks that prevented these ideas from taking off the ground. According to our interviews, there exists this idea that departments create curriculums in silos which hinder communication for cross-curriculum collaboration in addition to department politics, paperwork, and not enough time to dedicate towards creating something new. For some departments, cross-curriculum collaboration. If there is interest in teaching collaborative curriculums, department chairs noted that it mainly comes from Junior faculty with little buy-in from senior faculty, but due to time and the fact that evaluations for tenure track faculty don’t factor in collaborative curriculum projects, any faculty that initially voice the idea for collaboration quickly lose interest.

While cross-curriculum collaboration is an aspiration for some department chairs to get their faculty involved in, the very real reality of having less faculty to teach general education courses per their field while teaching to larger classes is a heavy burden on faculty. The skewed student to faculty ratio requires department chairs to get creative in order to either ease the workload of faculty, or motivate them to push through. For some department chairs, they incentivize their faculty to get agree to push through teaching larger classes by providing them with new technology to work with or by providing the option for course-release. Other department chairs have tried either funneling some of the general classes into an online class format, importing faculty from other departments to teach general sections of a course, or have tried training graduate students to teach some of the general sections of a course. The main question department chairs had was, “how do you properly prepare faculty to teach such large classes?” The professional development opportunities that some department chairs listed for developing the teaching abilities of their STEM faculty included encouraging faculty to attend OTEI workshops, or facilitated the idea of non-evaluative class visitations from fellow faculty to gain constructive feedback.

Service

While department chairs noted that there is a focus on improving the research and teaching abilities of their faculty, service was something of an afterthought despite its relevance to tenure track evaluations. When asked which kinds of faculty were encouraged to do service, department chairs indicated that they focused on encouraging senior faculty to get more involved with service after they’ve finished acquiring tenure. The idea behind encouraging senior faculty only stemmed from a fear of overburdening onboarding junior faculty who were already learning how to adjust to balancing their other responsibilities. Some department chairs reconfigured the
standards by which faculty are evaluated for service and how much service they must do based on their rank (ex. Full professors might be required to do more service than entry-level professors). Other departments are currently considering a reevaluation of how much service will weigh in evaluations based on rank as well.

The other half of the service challenge is a lack of buy in for completing service responsibilities. Department chairs noted that they have an easier time with getting junior faculty to buy in to doing service if they have faculty that act as role models who are invested in doing service. Like teaching to larger class sizes, another way that department chairs are either already getting junior faculty to buy into doing service or want to do is to incentivize faculty by providing the option for a course-release. Department chairs are still curious if there are other methods for incentivizing their faculty to get more involved in service outside of course release.

Leadership

The area of leadership development was the least discussed due to time constraints and department chair interest that focused more in the other three areas of professional development. From what we were able to gather, department chairs indicated that leadership is something that is evaluated on but not as heavily emphasized or evaluated on as research, teaching, and service. Some department chairs indicated that opportunities to development leadership skills were presented more to senior faculty and administration through opportunities like LEAD 21. However, other department chairs stated that junior and mid-level faculty are encouraged to take on leadership positions within the department to gain experience such as enlisting to become the Coordinator of Undergraduate or Graduate Studies, or getting involved in committee work. Finally, similar to having mentors in service and research, department chairs have seen organic mentorships develop between senior and junior faculty in order to develop junior faculty leadership skills, however these mentorships are not facilitated in a formalized format.