Innovations in Interdisciplinary Learning: Informal or Extracurricular Opportunities

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In the last decade more and more attention has been given to interdisciplinarity, and numerous books, articles, conferences, and workshops have been devoted to this topic. Graduate educators have been encouraged to emphasize interdisciplinarity in the training of graduate students so that the next generation of scholars is prepared to tackle the complex issues facing society today and in the future. It is generally acknowledged that solving the big issues confronting society such as climate change, water shortages, extreme events, and health requires input and understanding from many perspectives. At issue is agreement on – "What is the best way to prepare people to tackle these problems?" Actually there is not probably a single best way. For institutions of higher learning it is very dependent on history and organization. Colleges and universities have been a big part of the discussion because the faculty is often engaged in the very research that is necessary to solve these problems. To promote the interaction of faculty affiliated with disciplinary-oriented departments, universities have typically created research centers or institutes to physically or virtually house researchers who are tackling a common problem, but from different angles. This approach can be effective and research centers can provide the foundation for establishing interdisciplinary graduate degrees. However, as we all know there are numerous hurdles to overcome in establishing an interdisciplinary graduate degree. These include concern for the shifting of financial resources, competition with disciplinary degrees, and simply differences in the "cultures" of distinct disciplines.

Florida State University is a large comprehensive public research university with approximately 42,000 students of which 8,000 are graduate and professional. The 16 academic colleges offer more than 70 doctoral degree programs and more than 100 master's degree programs. Most of these are based within a unique department, but there are several interdisciplinary degrees at the graduate level. Some have existed for decades, others are fairly new. The organization, administration, and financing of these programs do not reflect a single model. Some are comprised of departments from a single college, but others cross colleges though administrative authority is accorded to a single academic dean. The degree established most recently is Materials, Science, and Engineering (MSE). MSE involves faculty from the College of Arts and Sciences and the College of Engineering, but the program is administratively housed under the Graduate School. The Program Director is appointed by the Dean of the Graduate School. There are no tenure lines in the program; all faculty are affiliates from their departments. It remains to be seen if this model can be successful at FSU.

I provided this description of degree programs at Florida State University as context for the remainder of my remarks. Creating successful and meaningful interdisciplinary degree programs is challenging. In my opinion it should not be the first step in promoting interdisciplinarity on a campus. I think that there are numerous other informal programs and activities that one can

offer within the framework of academic institutions that promote interdisciplinary engagement. In fact I believe that the development of interdisciplinary initiatives at Florida State University, especially degree programs has been hampered by the very decentralized structure of the institution. As Graduate Dean I am very cognizant of this culture and am careful to focus on programs and activities that can complement and enhance the academic experience students gain in their departmentally-based degree programs. Three areas where I think The Graduate School can make a difference are promoting: 1) interdisciplinary engagement and reflection; 2) international experiences; and 3) professional development. The remainder of my presentation will focus on approaches we have taken to promote interdisciplinary engagement and reflection at the graduate level, through informal mechanisms, which are the focus of this session. In the last several years The FSU Graduate School has established three programs to foster the interdisciplinary engagement of graduate students. These are: 1) The Fellows Society; 2) a competitive awards program to support symposia or conferences proposed by graduate students that are interdisciplinary in nature; and 3) support to foster students being able to take coursework outside their home unit, especially involving courses outside their college.

The Fellows Society

The Fellows Society brings together our outstanding graduate students who hold competitive university-wide fellowships for the purpose of interdisciplinary learning. Graduate students whose merits have been recognized through national fellowship programs, such as the NSF Graduate Research Fellowship Program, Charlotte W. Newcombe Fellowship, Woodrow Wilson Fellows, and other qualifying fellowship programs are also invited to become members. The goal of the society is to encourage these outstanding students to broaden their horizons by engaging with students from other disciplines. We start each year with an induction ceremony and explore topics such as leadership and mentoring. The goal is to complement and enhance the experience students' gain in their programs so we are cognizant of not wanting to offer too much. We host luncheons where the students can discuss their research with each other and benefit from fresh perspectives; or we may invite some of the distinguished research professors from across campus to engage them in conversation.

Each year, members of the Fellows Society are tasked with organizing an interdisciplinary symposium that addresses a complex problem of broad humanistic significance. The 2014 Fellows Forum was entitled "Keeping an Eye on the Digital Divide." The planning committee included students from Education Psychology and Learning Systems, Psychology, Art History, Philosophy, Urban and Regional Planning, and Religion. It included speakers from a broad range of disciplines including Urban and Regional Planning, Instructional Systems, Communication, and Psychology. An initial panel of faculty focused on issues in our local communities: factors that have contributed to the digital divide such as access, motivation, and stereotypes, the role that libraries can play in mitigating these factors, and the intersection of healthcare, religion, and technology. A second panel shifted the perspective a bit and discussed MOOCS, the digitization of museum collections enabling broader access, and use of geo-spatial digital technologies for planning decisions. A concluding plenary by a neuroscientist brought attention to the aging process, cognitive loss, and the use of technology by older individuals. Several of the participants had not interacted before the forum, but by the end they were discussing collaborative opportunities.

In previous years the forums have focused on climate change, sustainable food systems, and the re-integration of veterans into civilian life.

Interdisciplinary Symposia and Conferences

In an effort to encourage graduate students to think broadly and across disciplines, The Graduate School offers support for symposia/conferences/meetings that are organized and hosted by FSU graduate students. The funds can be used to defray travel expenses of a keynote speaker, food, printing etc. There is an annual solicitation for proposals. Priority is given to proposals whose organizing group includes participants (graduate students, postdocs) from more than one academic unit. The greater the diversity of disciplines the better, as the goal is to promote interdisciplinary dialogue and appreciation for a wide array of perspectives.

This past year we received 11 proposals and funded two. The first effort is a Natural Sciences Symposium that will take place in October 2014. The proposal was submitted by several graduate students representing five registered student organizations affiliated with four unique departments as well as two interdisciplinary organizations, Graduate Women in Science and the FSU Postdoctoral Association. The students are seeking to bridge the communication gap "to present their data and interact with others who conduct similar yet distinctive research". The Graduate school is providing \$2,000 towards the effort and the students have secured other commitments totaling approximately \$7,000. This effort promotes interdisciplinary engagement as well as planning and communication skills that are essential elements of successful careers.

The second effort (as elaborated in the proposal) is an "Interdisciplinary Performance Symposium that will bring together a variety of academic disciplines across campus to share artistic and cultural performance research. FSU does not offer a specific Performance Studies track, so the symposium will provide a forum for all scholars studying performance to engage with each other. The symposium will include scholars studying music, dance, theatre, anthropology, sociology, communication, modern languages, cultural studies, art history, and any other field in which performance is studied. The Graduate School is providing \$2,000 in support.

Interdisciplinary Course Waivers

College budget allocations at FSU are driven by student enrollment so some colleges discourage or do not provide tuition waivers for a course taken outside the college. The Graduate School established the Interdisciplinary Course Waiver program which provides graduate students the opportunity to request a tuition waiver through the central Graduate School allocation, for one course they need to take outside of their home College that will contribute to their degree progress. 83 students have taken advantage of this opportunity in the last two years.

Conclusion

Providing academic opportunities for students to engage with peers from other disciplines exposes them to full range of scholarship and broadens their mind. A critical part of developing as a scholar is learning the culture of one's discipline, but it is also important to learn how other disciplines approach a problem that may be of common interest. Too often we get focused on our own narrow little world and fail to make connections that could lead to new approaches and discoveries. Interdisciplinary forums, and symposia organized by students and postdocs can foster these connections and not suffer from the territoriality issues that often arise with formal

interdisciplinary degree programs. The next step for us will be to assess the effectiveness of these programs in instilling in students a desire to continue to engage with others beyond the borders of their discipline, and beyond Florida State University.