

Graduate Student Space and Service Needs: A Recommendation for a Cross-Campus Solution

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Abstract

Focus group methodology was used to investigate graduate students' cross-campus technology, space and service needs. Though the library provides valued services and spaces, graduate students need enhanced and more equitable support for their roles as teachers and scholars. Librarians can provide leadership and act as advocates for graduate student needs in partnership with other campus stakeholders.

Introduction

Graduate students pose a unique challenge for academic service providers because they take on multiple roles that go well beyond being a mere student. They often teach with little or no preparation while working on their own nascent research projects, preparing for careers in academia and trying to learn how to work in a scholarly community. They need to function optimally in multiple roles and environments. Consequently, seemingly small hurdles can add undue stress and frustration to the lives of graduate students.

In February 2010, the Oregon State University (OSU) Libraries Graduate Student Services Committee undertook a graduate student focus group study. This project was part of an ongoing effort to support OSU graduate students more effectively. The goals of the study were to broadly investigate graduate students' range of needs via qualitative methods 1) to gain more in-depth knowledge of graduate students' current use of both library and campus services and spaces, 2) to determine what services and research spaces were lacking, and 3) to explore if the library was the appropriate place to house these services and spaces. Past studies in the scholarly

literature have predominantly focused on quantitative survey methods to capture graduate student attitudes. By holding focus group conversations with our audience, we hoped to uncover more nuanced insight into graduate students' needs.

We anticipated the results would identify barriers to graduate student success and provide opportunities for moving beyond those barriers. We found that the barriers were more significant and wide-reaching than anticipated, and beyond the scope of the library to address alone. In this paper, we will describe the findings from our focus groups with graduate students, particularly those related to campus-wide spaces and services. We will suggest ways libraries can use these results to incrementally improve spaces and services for graduate students. Finally, we will explore how campus partnerships could be harnessed to meet the various needs of this key patron group.

Review of the Literature

Librarians and campus support professionals are increasingly recognizing the need to expand their services to graduate students.¹ Most student services research has focused on undergraduates. However, graduate students are “developmentally different” from undergraduates, due to an increased sense of social isolation and more pressure to juggle varied responsibilities.² A driving factor behind much of this research is the problem of graduate student retention, which affects all departments and campus stakeholders.³ Graduate students report receiving little information about the formal and informal requirements of graduate school. This information gap is a factor in graduate student retention and leads to a decrease in students' overall scholarly productivity.⁴ Not only do graduate students express difficulty navigating the larger campus system, but graduate students often report being unaware of the

library resources and services available to them.⁵ In addition, graduate students tend to identify with their department or lab rather than the larger institution. This lack of connection arises in part because graduate students feel the institution reaches out to undergraduates, but not graduate students. As a result, graduate students perceive a gap in services.⁶

Libraries do recognize the importance of planning for and providing services specifically for graduate students. Previous studies have examined graduate students' information seeking behaviors, information needs, and research process needs.⁷ The focus of this study grows out of the groundwork those studies have laid and is more specifically focused on planning for the broader services and spaces libraries can provide or facilitate for graduate students.

Researchers who have examined what services graduate students actually use have found they use services relevant to their scholarship and research.⁸ These services range from interlibrary loan to public service desks to help with the literature review process.⁹ When graduate students were asked about what services they want the library to provide, they were pragmatic in their responses, desiring functional, easy-to-use equipment in the library, document delivery services, and library instruction at the point of need.¹⁰

Research into graduate students' use of library spaces found they visited the library for specific tasks, such as carrying out research or using specific resources, and that fewer students used the library for extended study periods.¹¹ While not pinpointing exactly why the library may not be the destination of choice for graduate students, several studies shed light on some potential reasons. When graduate students were asked about what spaces they want or expect from the library, many simply envision a quiet space for contemplative study.¹² In contrast, as part of a library renovation project, Cecily Marcus, Lucinda Covert-Vail and Carol A. Mandel found graduate students' desires for a library space were quite varied. They wanted private

spaces, social spaces and spaces that facilitated group work, all in a pleasing atmosphere. One important characteristic of all these spaces was that they should be separate from undergraduate study spaces. Finally, these participants wanted more ways to connect with fellow researchers as the nature of their work required many interdisciplinary connections.¹³

Articles on spaces and services for graduate students do not report on efforts to create a broader emphasis on campus-wide services within the library. The information and learning commons literature frequently refers to the importance of collaborating with other campus services to provide services within the library, but is more focused on undergraduates.¹⁴ The University of Washington's Research Commons brings together services such as digital scholarship, grant writing, and copyright expertise.¹⁵ However, this research space is for a variety of different research audiences, of which graduate students are but one group.

Some libraries have made progress in providing graduate students with dedicated spaces within the library. For example, the University of Rochester's Rush Rhees Library created a room specifically for graduate students that included storage space, white boards and a welcoming atmosphere.¹⁶ New York University Libraries built graduate student-specific study areas for both private work and group study.¹⁷ These examples provide inspiring best case scenarios of what might be possible for librarians planning for graduate student space. In general, discussions about creating graduate student spaces within the library offer few solutions for dealing with the reality that most libraries either cannot afford to create new spaces for graduate students or have space restrictions that allow for little growth.

Looking beyond libraries, the discussion is also limited. Lisa Brandes provides examples of several universities that have created graduate student centers to give graduate students their own space to study individually or in groups, as well as access to student services specifically for

graduate students. As these examples illustrate, in some instances graduate students' desire for "one-stop shopping" might be served best outside of the library or in the case of the information commons model, by incorporating additional campus services into library space. But again, the literature is limited about truly addressing graduates students' space and service needs.

At Oregon State University Libraries, we have had a graduate student services program in place since 2007. An anticipated reconfiguration of the learning commons space prompted us to learn more about the space and service needs of our graduate students. Building on experiences of other academic libraries and our previous assessments of this population,¹⁸ we decided to assess our graduate students' needs at a broad level. Consequently, our findings are extendable in time and potentially to other campus spaces, as changes to spaces do not happen quickly. Our primary research questions were:

- to discover where and when graduate students found they were most successful with a variety of research activities;
- to gauge awareness of campus and library services for graduate students; and
- to collect graduate student insights about the types of technologies, spaces and services that would best match their needs.

Methods

Focus groups were chosen for this study as they are especially useful for exploration and discovery and generate in-depth data on the range of issues or factors that are important to the participants.¹⁹ In an academic environment, they have the added benefit of bringing together students who may have common interests or concerns, but are otherwise siloed due to academic

and departmental structures. Focus groups are well-established as an appropriate qualitative research method for determining attitudes and perceptions of a particular group. They also extend and potentially validate anecdotal conversations individual librarians have with graduate students. We convened focus groups to explore graduate student attitudes and perceptions about library and campus-wide spaces and services.

OSU is a Carnegie I land grant research institution with eleven graduate-degree granting academic colleges and a graduate student population of approximately 3300.²⁰ OSU graduate students from all departments were invited to participate in a focus group via an all campus e-mail list. Institutional Review Board approval was granted for this project and participants completed appropriate consent forms.

Thirty-six students from twenty departments representing eight colleges attended the focus groups (see Table 1). Those colleges not represented in this study were the Colleges of Business, Pharmacy and Veterinary Medicine, which are almost exclusively professional degree granting colleges. Because OSU is a land grant institution and has a large College of Engineering, the high number of participants from the Colleges of Agricultural Sciences, Science, and Engineering reflect the OSU graduate student body fairly well. Additionally, 60 percent of the participants were female and 40 percent were male, as compared to 51 percent female and 49 percent male for the overall OSU graduate student body.²¹ Both master's and doctoral students participated in this study, and no effort was made to distinguish between these two groups as most services and spaces for graduate students at OSU do not make such distinctions.

Table 1. Colleges represented by the graduate student focus group participants.

Colleges Represented	Number of Participants
Education	2
Ocean and Atmospheric Sciences	3
Forestry	3
Liberal Arts	3
Health & Human Sciences	4
Agricultural Sciences	5
Science	7
Engineering	9

Participants were divided into four groups of a maximum of twelve people per group based on the participants' scheduling preferences. The four focus groups were held during February 2010, and met for 90 minutes each. The discussions were led in a semi-formal manner that allowed researchers to follow up with additional questions as necessary. One researcher acted as the moderator, one researcher took notes on a flip chart for all to see, and an additional researcher took notes on a laptop.

Eight prompts were used to guide the focus group participants. The questions asked participants to reflect on a mixture of spaces and services they use to carry out their research and

scholarship. For the most part, the questions were not limited to participants' use of the library and encouraged students to think as broadly as possible about research spaces and services.

1. In what space (campus or otherwise) do you feel most productive in terms of your research?
2. In the context of your work as a graduate student, what do you currently find useful in an OSU space or OSU service?
3. If you were a graduate student at another institution before coming to OSU, what useful space or service did you have access to there?
4. Are there campus services that you would like to see pulled together to better serve your needs?
5. What would your ideal space look like (think in terms of services available, technology available, and furnishings available) or if you were dreaming very big (money or space not an issue), what would make your research space exceptional?
6. Do you think the library is a good place to provide graduate student space and services or programming?
7. In the context of your work as a graduate student, what additional library services or programming would you find useful?
8. When would you make use of a dedicated graduate student space? When should the services or programming and support in this space be available?

Following each focus group, the researchers debriefed and discussed themes or ideas that arose during that particular focus group. After all the focus groups were conducted, investigators independently looked for trends in the transcribed responses to determine if overall themes could

be determined regarding graduate students' current and future research space and service needs. The researchers compared their individual codes and consensus was reached on overlapping themes. After the analysis was concluded, a full report of the findings was shared with the OSU Libraries administration and the OSU Graduate School. A summary report was also sent out to the focus group participants.

Findings

The focus group transcripts reflected two main topics: 1) library and campus-wide services for OSU graduate students, and 2) library and campus-wide research spaces for OSU graduate students. In addition, several other relevant themes emerged related to scholarly support issues for graduate students. All responses were analyzed for the frequency with which the issues arose, the extensiveness of the topics (e.g. how many participants addressed similar topics), and the intensity with which participants discussed their ideas and opinions.

Many of our findings related to library-specific issues support prior research. Even so, they are useful in our planning efforts. They illuminate what space and service gaps students have, demonstrate instances in which graduate students would and would not use the library, and help identify specific graduate student groups who would be best served with limited library resources. Although we present and discuss several library-specific findings, the main focus of our findings and discussion are responses pertaining to cross-campus issues as these emerged as the most interesting and novel findings. In general, we found graduate students need cross-campus efforts to support them in their multiple roles of student, researcher, teacher and future academic or professional. We found that the uneven distribution of campus resources across colleges and departments has a marked effect on graduate students. Our focus group findings

emphasize graduate students' difficulties with the lack of a comprehensive approach to services, space, and scholarly support.

Services

We asked students about services anywhere on campus that currently worked for them. We found that many library services did meet their needs; for example, interlibrary loan service was consistently identified as one of the most helpful services, although many participants wanted interlibrary loan to go further and serve as a document delivery service. As found in many previous studies, our graduate students also wanted to find more books in their disciplines on OSU Libraries shelves, even though they were aware of services like borrowing through our consortial catalog.

Participants noted, in particular, that services designed to help graduate students in the larger campus community and with their scholarship needs were lacking. One participant described the need for an overview to all graduate student services at OSU that would be, "like grad student 101; I was so accustomed to where I was before, most of us come from other places; freshmen have U-Engage" (a first-year student orientation program), and went on to comment about the initial difficulty of navigating basic services like paying bills and using the campus course management system. Other students agreed, expressing a frustration with insider acronyms and the desire to have a general overview to the university system in addition to the departmental orientations they receive.

When asked what other training options they would find useful, participants discussed a wide array of topics, a number of which are already provided by the library, including citation management software workshops, style guide workshops, and an introduction to library

databases. However, many of the training ideas either fell outside or on the fringes of current library expertise. Participants wanted a wide range of additional training in areas such as writing, thesis and dissertation formatting, programming languages and use of statistical software packages.

Campus services were discussed with varying frequency by the different focus groups, revealing a lack of consistent knowledge of available services. Participants displayed a collective knowledge of campus services including counseling services, tutoring services, free poster printing, and departmental libraries. However, participants were neither equally aware of all of these services nor satisfied with them. An illustration of the disconnect between participants' knowledge of services and the provision of these services was shown when participants expressed needs for existing services. For example, several students expressed interest in a presentation practice room, a space already provided for them in the library. Participants also mentioned services that are truly lacking on campus, including career services for graduate students. They recognized that much of career services' effort was aimed at undergraduates, but especially in light of the current economic climate, participants thought increased job search support at the graduate student level was needed.

Several requests for changes to library services were requested, such as more workshop time slots, more online access to workshop materials, access to additional electronic resources, and enhanced document delivery services (this service was concurrently being developed and is now available for all library patrons). More substantial gaps in services appeared at the campus level. Some of these gaps were due to communication issues, as students repeatedly expressed the need to be better informed about services, resources and events across campus. They

recognized they do not know the full range of opportunities available. One student noted, “I think there’s [sic] a lot of things I don’t know exist,” while another said, “I only know a quarter of what you can do [at the library].”

Promoting library and campus-wide services to graduate students is crucial for incorporating students into the university community and supporting their success as scholars, but promotion is a perennial problem. At OSU Libraries, we use a variety of tools to communicate with graduate students including the subject librarian network, a graduate advisor listserv, print promotions, the daily campus news e-mail and the library Web site. At the campus-wide level, promotion focuses on undergraduates and not the graduate student. Additionally, many graduate students opt out of opportunities to learn more about the Libraries’ and other services while professing a lack of awareness of resources and services. This behavior is frustrating, but highlights the need for a more comprehensive and targeted approach to communication with graduate students. Regardless of problems with promotion, the gap in availability between services for graduate students and those for undergraduates remains significant.

Spaces

Participants wanted both social and private spaces. Social spaces were mentioned as a way to help build community, something that many graduate students feel is lacking in their departments. One student shared that she “... felt so isolated my first term . . . and I thought I was crazy, because I didn’t know the other people were crazy too, and finding out they had similar concerns. Besides [I miss] having a connection in another department, I don’t find there are other forums to meet other grad students.” Participants thought it would be beneficial to have

a space where you know others will be going to work on similar projects – a community built around common classes, research or teaching. All four of the focus groups mentioned it would be nice to have a place where they could relax alone or with others and have a snack, drink, or a meal; one group called it a graduate student lounge. Similar desires were articulated by graduate students at New York University.²²

Contrasting the need for social spaces was the desire for private spaces. The participants who discussed this need most intensely came from the “have not” departments. In this study, the “have nots” were primarily represented by the College of Liberal Arts (CLA). Within many CLA departments, four or more graduate students share an office, computers, telephones, and printers. One of the CLA participants thought “. . . in an ideal world we could rent a little cubicle in the library to escape everyone in our office and put our books there.” In direct contrast, some colleges are able to provide many amenities for their students (the “haves”). College of Engineering and College of Science students, especially teaching assistants, are more likely to have an office and their own computer, giving them at least a small research space of their own.

We expected graduate students to require a variety of advanced technologies within their research spaces, so we asked students what technology needs they had. The participants’ technology needs were surprisingly mundane, including access to large whiteboards, staplers, three hole-punches and highlighters, all of which are currently available in the library, though largely in an undergraduate-dominated Learning Commons. For the participants in this study, the major technology issue was access to free printing.

Beyond the basic technologies needed to complete their work, participants wished for additional items including fast computers, dual monitors, fast Wi-Fi performance, double-sided

printing, copiers or scanners nearby, and enough outlets to plug in their laptops. This list describes their vision of an ideal office space, while illustrating how the lack of basic technology can hinder the sophisticated work they are striving to accomplish.

Participants' space needs did not point directly to a library-specific solution. Some students even asked if there could be satellite graduate student lounges across campus so they would not need to walk as far as the library. Their main concerns were that spaces for them be separate from undergraduates, comfortable, and usable for extended time periods. These findings point to a campus-wide need to support graduate students more consistently and creatively.

Scholarly Support

Concerns repeatedly arose relating to how graduate students are supported for their independent research and teaching efforts. Three areas— mentoring, graduate teaching assistant needs and collaboration— represent some of the most original thinking offered by the focus group participants and reveal some persistent service gaps these graduate students face. While the library can play a role, these issues largely need to be addressed by units across campus.

Discussions about mentoring generated a high degree of intensity as the advisor/advisee relationship is often a point of stress for graduate students.²³ Graduate students across departments can identify with the challenges that arise in trying to navigate this relationship. One participant recognized that both mentor and mentee need a shared understanding of the journey ahead in order to succeed. One participant expressed the process of achieving this shared understanding in this way, "... expectant parents go to Lamaze, if [the] advisor and advisee went to a meeting together [where] you would learn about what to expect, it would be useful for both parties to know the same thing at the same time." Participants expressed frustration that advisors

do not have a complete understanding of the requirements and timeline imposed by the Graduate School noting, “you can go to your advisor, but they’re out of touch with what you need to do for that anyway” and, “your advisor just does research and they just think you should find out about that other [Graduate School] stuff.”

Graduate students often struggle to determine their responsibilities as teachers and to develop their skills in this crucial area. The apparent lack of support for teaching assistants (TAs) was of particular concern, as instruction by TAs has an impact on a significant proportion of the undergraduate student population. The lack of preparation for the teaching role was evidenced in comments like “I just started as a TA and I’m totally lost” and “...our TAs are just flung out there, and it’s terrible, if there weren’t other TAs to help you out, everything would be a mess” and “I need more teaching resources too, I feel like a lot of times we’re thrown into these TA positions and we don’t have resources...” Another participant noted, “... we have to figure out how to make the class more applicable and useful to [students] and other people who teach classes face the same sorts of issues and it would be nice to pool teaching resources [in a central location].” One student, discussing specific workshops that might be helpful said, “... it would be good to have one for grad students, and grad student TAs, maybe just some basic teaching skills.”

Support for teaching assistants also varied by “have” and “have not” departments. Teaching assistants, especially those in the CLA, reported the need for support as basic as the printing and copying of course materials. One TA from the English department expressed disbelief and frustration that some departments support free printing and said, “I can’t believe you guys get free printing [from your departments], I just printed 14 copies of a 16 page paper

[for students for classes].” Substantial costs associated with teaching are being personally absorbed by teaching assistants who can little afford to bear them.

Finally, several participants in two of the focus groups discussed specific ideas to improve cross-campus collaborations. Participants expressed a desire for more interdisciplinary interactions, opportunities for collaboration or simply the ability to discover other students or faculty with potentially overlapping research interests. One participant suggested a theoretical tool that would let researchers, “go online and see what types of research projects other grad students were doing so we could see if we could connect with them or what they’re doing ... my professor has an idea of who to work with, but it would be nice if I could figure that out on my own.” Another participant clearly recognized there was similar work going on in different departments noting, “In my department, in my field, toxicology is doing one thing, chemistry is doing one thing, and you’re doing the same type of research, but there’s no connection.”

Participants offered more specific potential solutions to the siloing of research by suggesting, “what might be helpful [is] some kind of database where research projects would be updated so you could search and find ... it would have been nice to have this [database type of option].” More specifically, one participant noted the library might play a role, “I would like to see the library put together a clearinghouse of all the research that is happening across campus, so we could browse through what other people are doing and make connections across campus.”

Participants also identified non-technology based ways of increasing cross-disciplinary interaction. In particular, one participant highlighted an opportunity libraries have to foster face to face interaction by noting “if the library can sponsor presentations, interdisciplinary talks, [where] each department gives talks ... maybe undergrads would come and listen too instead of

just a few members of your research group being there ... we could get to know each other by giving each other feedback.” In their report, Marcus et al. also discovered the increasing value researchers are placing on collaboration and interdisciplinary connections.²⁴ Additionally, University of Rochester Libraries’ researchers found graduate students’ growing awareness of the need to place themselves more broadly within the variety of multidisciplinary conversations concerning their particular research area.²⁵

Discussion

The overarching goal of this research was to determine how the library should situate itself to further the research and scholarship of graduate students. The findings revealed that graduate students in this study had space, service and information needs that went well beyond the bounds of the library. Some of those needs arose because students were unaware of the formal and informal requirements of graduate school. Other needs were directly, or indirectly, related to the amount of support students found in their particular graduate program. While some students had a structure for learning about the explicit requirements within their programs, others had no structure. These findings are alarming, as research has shown graduate students are more likely to leave graduate school if they have a poor understanding of the formal and informal expectations of graduate school.²⁶

Many of these concerns were not directly targeted at library services and spaces. Those concerns that were targeted directly at the library—better communication, more robust print and electronic collections, more workshops, longer study room checkout—are issues that OSU Libraries are working to resolve or have already resolved. While this study found that graduate students need the services the library provides, some of the services they value most—interlibrary

loan, document delivery—do not require students to come to the library. Likewise, graduate students need spaces that are separate from undergraduates, but these spaces do not need to be in the library. Some graduate student issues are clearly outside the purview of the library to address alone. However, as members of the university community, librarians still have a significant role to play in addressing issues such as improving support in the areas of research and teaching for these future professionals. Librarians and library administrators may be well-positioned at the “center” of campus academic life to engage graduate schools and other appropriate campus administrators in collaboratively addressing graduate student needs.

Foster Cross-Campus Collaborations to Support Students

Planning appropriate services and spaces for any project requires assessing the level of resources available for that project. Addressing the conflicting desires of graduate students would be simpler if libraries and campuses had unlimited space and funds to create graduate-only spaces; in reality this is rarely the case. One possible method to address the problem of limited space and funds is to encourage the implementation of graduate student centers as described by Brandes.²⁷ These centralized facilities address a variety of needs we heard voiced in our study, including the need for professional development, student affairs guidance, and a social community.

A graduate center requires new partnerships among decentralized campus units. These partners could include the Graduate School, graduate advising, the counseling and health centers, the writing center, the research office, and the library. A way to begin building these partnerships would be to offer a robust series of graduate student workshops that taps expertise from many units. For example at OSU, the Center for Writing and Learning could provide workshops on

writing papers, creating effective graphical representations of data or ideas, skim reading or speed reading. Some workshops could be offered by the Graduate School, including an overview of funding options and thesis and dissertation formatting. Technology workshops on topics such as using computer programming languages and using statistics software packages could be offered by departments or units with the relevant expertise. All of these workshops were desired by our participants, but fell outside the library's normal expertise. At OSU Libraries, we have begun to reach out to other departments such as Statistics, Speech Communications and the Research Office to generate this more comprehensive workshop series.

A graduate student center could also serve to ensure that graduate students receive more equitable information and support and even out the support for students in "have not" programs. Commonly-located space and technology would provide those students without departmental offices or access to needed technology with what is increasingly viewed as the basic infrastructure needed to be productive. A physical space devoted to graduate students opens possibilities for that space to serve as an information hub with a place to centrally locate announcements and alerts about events and services. While a graduate student center cannot serve as a surrogate for a productive advisor/advisee relationship, it could ensure that students have access to the information they need to progress more smoothly through their graduate school experience.

In the absence of a centralized and visible campus entity supporting graduate students, there is an even greater imperative to increase communication and partnerships among disparate campus units engaged in serving graduate students. A virtual center might be another option to achieve improved student support if the creation of a physical center is not a possibility due to

space or budgetary concerns. The primary purpose of such a virtual center would be communication and information dissemination. Students desire better ways to find out about all the campus services available, from help with research and writing, to support for mental and physical health, to opportunities for participation in the campus community. The virtual center could also be a clearinghouse for training and development workshops, for frequently asked questions, and for socializing opportunities for graduate students. Examples of such virtual spaces include the relatively simple virtual bulletin board and sharing space described by Daniel Saunders and Catherine Lynch²⁸ or Goldsmiths University of London,²⁹ a virtual graduate school that provides professional development resources, graduate school policies, networking opportunities, event listings, and training and funding resources.

Other expertise that libraries can bring to the table to not only support graduate students but facilitate cross-campus collaborative efforts taps into skills and knowledge we have developed in the course of our work. We can offer programs to better educate graduate students about scholarly publishing and open access (something we currently do at OSU Libraries), or we can open internal library-based professional development events related to teaching or emerging technologies to our graduate student population. Finally, we can share our experiences and expertise in designing patron-centered services with potential partners across campus.

Serve a Niche Group

Another fruitful way to approach the problem of limited resources is to examine which graduate student groups would gain the most from targeted services and make the best use of such services, and then create spaces specifically for those groups. Principles from the business world may serve to direct our thinking in this area. Niche marketing recommends that companies

seek ways to meet “specific customers’ needs more precisely” in order to discover opportunities for innovation.³⁰ Rather than trying to provide services and spaces for graduate students with a diverse array of needs and resources, libraries and other student support units may be more effective by seeking out specific groups of graduate students on which to focus services and support.

In this study, trends began to emerge in service and space desires that differentiate students from “have” and “have not” departments. Follow up work is required to determine more precisely which departments would benefit most from targeted services. Based on the data gathered to date, focusing on graduate students from the College of Liberal Arts would have a high impact on their research and teaching experiences. An example of a space created for a particular discipline can be seen at the University of Virginia Library,³¹ where they built a Scholar’s Lab specifically for students and faculty in the humanities and social sciences.

We can take steps at the library level to address needs and disparities. For example, we changed the individual and group study room policies so graduate students could check out rooms for six hours at a time, as opposed to the three hours undergraduates are allowed. We also collaborated with another unit housed in the library to open up presentation rooms to graduates students if those were not previously reserved. While neither of these initiatives specifically targets “have not” departments, presumably graduate students with a higher need for these spaces will take more advantage of these options. And indeed, when graduate student focus group participants were notified about these changes, students from “have not” departments were the ones who emailed back thanking us for advocating for these improvements. These small, no-cost

policy changes illustrate that addressing graduate student needs is possible in incremental steps with adequate collaboration.

Conclusion

In this study, graduate student focus groups discussed their space and service needs so the library could plan ways to meet those needs. Some graduate student needs were easily addressed by simple policy adjustments within the library. Dedicated research space and services will require long-term planning, re-purposing of existing library spaces and additional staff. A follow-up study looking at the differences between the “have” and “have not” graduate student groups on our campus would be useful for determining how to focus library efforts in this area to those who will need them most.

While it is important to remove policy and procedural barriers and develop long-term plans to accommodate graduate students, this study alerted us to problems that go well beyond what the library can do alone. Graduate students are unequally supported on our campus, and the units providing various kinds of support are not currently working as collaboratively as is possible. From our interactions with graduate students, we see an expanded role for the library in building a more cohesive web of support for this important segment of the university population. We can begin by examining the effectiveness of library partnerships with other campus support systems for graduate students. We need to recognize our various perspectives on barriers and opportunities for serving graduate students. A new level of partnership with other campus units can positively impact graduate student research, teaching and affective needs.

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Notes

¹Becki Elkins Nesheim et al., "If You Want to Know, Ask: Assessing the Needs and Experiences of Graduate Students," *New Directions for Student Services* 115 (2006): 5-17; Maria Anna Jankowska, Karen Hertel, and Nancy J. Young, "Improving Library Service Quality to Graduate Students: LibQual+ Survey Results in a Practical Setting," *portal: Libraries and the Academy* 6, 1 (2006): 59-77; Carlette Washington-Hoagland and Leo Clougherty, "Identifying the Resource and Service Needs of Graduate and Professional Students: "The University of Iowa User Needs of Graduate Professional Series", " *portal: Libraries and the Academy* 2, 1 (2002): 125-143.

²John T. McCarthy, Michelle L. Bruno, and Christine A. Sherman, "Exploring the Help-Seeking Attitudes of Graduate Students at an Off-Campus Site," *Canadian Journal of Counselling* 44, no. 2 (2010): 208-226.

³Council of Graduate Schools, "Quantitative Data by Field for the Ph.D. Completion Project - Council of Graduate Schools," *Council of Graduate Schools Ph.D. Completion Project*, 2008, Available: http://www.phdcompletion.org/quantitative/book1_quant.asp. (May 15, 2011).

⁴Ann E. Austin, "Preparing the Next Generation of Faculty: Graduate School as Socialization to the Academic Career," *Journal of Higher Education* (2002): 94-122; Barbara E. Lovitts, *Leaving the Ivory Tower: The Causes and Consequences of Departure from Doctoral Study* (Lanham, Md: Rowman& Littlefield Publishers, 2001).

⁵Jessica Kayongo and Clarence Helm, "Graduate Students and the Library: A Survey of Research Practices and Library Use at the University of Notre Dame," *Reference & User*

Services Quarterly 49, 4 (July 1, 2010): 341-349; Carole George et al., "Scholarly Use of Information: Graduate Students' Information Seeking Behavior," *Information Research* 11, 4 (2006), Available: <http://informationr.net/ir/11-4/paper272.html>. (May 15, 2011).

⁶Jessica White and John Nonnamaker, "Belonging and Mattering: How Science Doctoral Students Experience Community," *NASPA Journal* 45, no. 3 (2008); Courtney A Smith, "Millennial Students Who Go Directly to Graduate School: Influences on this Decision and the Characterization of Their Experience," 2010, Available:

<http://etd.ohiolink.edu/view.cgi/Smith%20Courtney%20A.pdf?wright1277317530>. (May 15, 2011)

⁷Kayongo and Helm, "Graduate Students and the Library"; Joan Stein et al., "In Their Words: A Preliminary Report on the Value of the Internet and the Library in Graduate Student Research," *Performance Measurement and Metrics* 7, 2 (2006): 107–115; Cecilia M. Brown, "Information Literacy of Physical Science Graduate Students in the Information Age," *College and Research Libraries* 60, 5 (1999): 426-38; Carole George et al., "Scholarly Use of Information: Graduate Students' Information Seeking Behavior"; Steve Hiller, "How Different Are They?," *Issues in Science and Technology Librarianship* 33 (2002), Available: <http://www.istl.org/02-winter/article1.html> (May 15, 2011; Tina E. Chrzastowski and Lura Joseph, "Surveying Graduate and Professional Students' Perspectives on Library Services, Facilities and Collections at the University of Illinois at Urbana-Champaign: Does Subject Discipline Continue to Influence Library Use?," *Issues in Science and Technology Librarianship* 45 (2006), Available: <http://www.istl.org/06-winter/refereed3.html> (May 15, 2011).

⁸Rachel Fleming-May and Lisa Yuro, "From Student to Scholar: The Academic Library and Social Sciences PhD Students' Transformation," *portal: Libraries and the Academy* 9, no. 2 (2009): 199–221.

⁹Maria Anna Jankowska, Karen Hertel, and Nancy J. Young, "Improving Library Service Quality to Graduate Students: LibQual+ Survey Results in a Practical Setting," *portal:Libraries and the Academy* 6, no. 1 (2006): 59-77; Carlette Washington-Hoagland and Leo Clougherty, "Identifying the Resource and Service Needs of Graduate and Professional Students: "The University of Iowa User Needs of Graduate Professional Series"," *portal":Libraries and the Academy* 2, no. 1 (2002): 125-143; Hannah Gascho Rempel, "A Longitudinal Assessment of Graduate Student Research Behavior and the Impact of Attending a Library Literature Review Workshop," *College & Research Libraries* 71, no. 6 (2010): 532 -547; Fleming-May and Yuro, "From Student to Scholar."

¹⁰Jankowska, Hertel, and Young, "Improving Library Service Quality to Graduate Students: LibQual+ Survey Results in a Practical Setting"; Washington-Hoagland and Clougherty, "Identifying the Resource and Service Needs of Graduate and Professional Students: "The University of Iowa User Needs of Graduate Professional Series""; Cecily Marcus, Lucinda Covert-Vail, and Carol Mandel, *NYU 21st century library project: Designing a research library of the future for New York University* (New York University, January 2007), Available: <http://library.nyu.edu/about/KPLReport.pdf>(May 15, 2011).

¹¹Washington-Hoagland and Clougherty, "Identifying the Resource and Service Needs of Graduate and Professional Students: "The University of Iowa User Needs of Graduate Professional Series"."

¹²Karen Antell and Debra Engel, “Conduciveness to Scholarship: The Essence of Academic Library as Place,” *College and Research Libraries* 67, no. 6 (2006): 536–560; Jankowska, Hertel, and Young, “Improving Library Service Quality to Graduate Students: LibQual+ Survey Results in a Practical Setting.”

¹³Marcus, Covert-Vail, and Mandel, *NYU 21stcentury Library Project: Designing a Research Library of the Future for New York University*.

¹⁴ Joan K. Lippincott, “New Library Facilities -- Opportunities for Collaboration,” *Resource Sharing & Information Networks* 17, 1 (2005): 147.

¹⁵David Free, “UW opens Research Commons,” *College & Research Libraries News*, 2010.

¹⁶ Susan Hagen, “Graduate Students Get a Room of Their Own: University of Rochester News,” October 23, 2009, Available: <http://www.rochester.edu/news/show.php?id=3476> (May 15, 2011)

¹⁷ Andy Rutkowski, “NYU Libraries. Graduate Student Services. Spaces,” (N.D.). Available: <http://nyu.libguides.com/content.php?pid=31133&sid=629459> (May 15, 2011).

¹⁸ Hannah Gascho Rempel, “A Longitudinal Assessment of Graduate Student Research Behavior and the Impact of Attending a Library Literature Review Workshop,” *College & Research Libraries* pre-print (2010), Available: <http://crl.acrl.org/content/early/2010/04/29/crl-79.full.pdf+html?frame=header> (May 15, 2011)

¹⁹ David Morgan, *The Focus Group Guidebook*, Focus Group it 1 (Thousand Oaks Calif.; London: SAGE, 1998).

²⁰ Oregon University System, “OUS 2009 Fact Book,” 2010, Available: <http://www.ous.edu/factreport/factbook/> (May 15, 2011).

²¹ Oregon University System, “OUS 2009 Fact Book”, 2010, Available: <http://www.ous.edu/factreport/factbook/> (May 18, 2011).

²² Marcus, Covert-Vail, and Mandel, *NYU 21st Century Library Project: Designing a Research Library of the Future for New York University*.

²³ S. K. Gardner, "Student and Faculty Attributions of Attrition in High and Low-completing Doctoral programs in the United States," *Higher Education* 58, no. 1 (2009): 97–112.

²⁴ Marcus, Covert-Vail, and Mandel, *NYU 21st Century Library Project: Designing a Research Library of the Future for New York University*.

²⁵ Ryan Randall et al., *The Next Generation of Academics: A Report on a Study Conducted at the University of Rochester* (University of Rochester, 2008), Available:

<https://urresearch.rochester.edu/retrieve/15430/Report+to+Public+on+Grad+Student+User+Research.pdf> (May 15, 2011).

²⁶ Lovitts, *Leaving the Ivory Tower*.

²⁷ Brandes, "Graduate Student Centers."

²⁸ Daniel B. Saunders and Catherine M. Lynch, "Using Technology to Create Student Space, Provide Resources, and Strengthen Governance in Graduate Programs," *StudentAffairs.com* Summer (2008) Available:

http://www.studentaffairs.com/ejournal/Summer_2008/UsingTechnology.html (May 15, 2011).

²⁹ Goldsmiths, University of London. Goldsmiths' Virtual Graduate School, (N.D.) Available: <http://grad.gold.ac.uk/> (May 15, 2011).

³⁰ Michael E Raynor and Howard S Weinberg, "Beyond Segmentation," *Marketing Management* 13, 6 (November 1, 2004): 22.

³¹ University of Virginia Library. Scholar's Lab, (N.D.) Available: <http://www2.lib.virginia.edu/scholarslab/about/> (May 15, 2011).