ADDING VALUE: OFF-ROADING TO RETHINK THE NEEDS OF GRADUATE STUDENT EMERGING SCHOLARS

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INTRODUCTION

Working on a graduate thesis/dissertation or capstone can be an overwhelming experience for graduate students. Meyer and Land (2006) refer to this experience as being a ‘liminal space’ where students, transitioning from being a graduate student to an academic scholar, require support beyond just learning how to find, access, and evaluate library resources. The literature also contends that we often make invalid assumptions about where graduate students are on the information literacy expertise continuum (Gordon, 2002; Spezi, 2016). To explore a more holistic approach to graduate student support, this paper will use two seminal theories: Kuhlthau’s Model of the Information Search Process, or the ISP, (1991), and Schlossberg’s Transition Theory (1984, 1995) to better understand the type and timing of this support. These theories in combination with previously collected graduate student data provide an opportunity to go off-roading to find a more strategic approach to graduate student support.

LITERATURE REVIEW

The need for graduate student outreach becomes obvious when looking at PhD students’ attrition rates. In a 2015 study by the Council of Graduate Schools, the average attrition rate for graduate students in all fields stands at 36.7% (Sowell, Allum & Okahana, 2015). Bellard (2005) found that graduate students overestimate their research expertise. Rempel and Davidson (2008) echo many of these findings and claim that faculty advisors wrongly assume graduate students come to a graduate program prepared to conduct independent research. In similar findings, Switzer and Wynn Perdue (2011) conclude that graduate students will have difficulty in the writing phase of a dissertation if they cannot properly synthesize the literature.

Graduate students also report library anxiety, similar to undergraduate students, that creates a barrier to becoming an effective researcher and scholar (Brinkman & Hartsell-Gundy, 2012; Cleveland, 2004). Students often report the dissertation process, as well as library research process, contributes to their stress level. They also report feeling like academic impostors (Crandock, Birnbaum, Rodriguez, Cobb, & Zeeh, 2011) and begin to doubt their research ability. Even when library instruction is provided, it is often a one-shot experience and students become more anxious now knowing what they do not know. Jiao and Onwuegbuzie (1998) contend that graduate student library anxiety can be associated with the need for perfectionism, as well as procrastination (Onwuegbuzie & Jiao, 2000). If a student puts off meeting with a librarian until the dissertation stage, this procrastination can cause higher levels of anxiety during the high-stakes dissertation process.

Although graduate students are at a developmentally different level than undergraduates and have already successfully navigated the college system, they may become more socially and academically isolated than undergraduates. Kayongo and Helm (2011) contend this is because as adult learners they are coping with a variety of responsibilities. Jobs or other university roles and responsibilities may prevent them from participating in cohort social opportunities. All of these factors can impact how graduate students find out about and receive support and services (Renfro & Stiles, 2018; Siegel, 2009). George et al. (2006) report on the value of research discussions, seminars, and peer-to-peer information sharing for graduate students. Similar to transfer students, many graduate students may have attended a different institution for undergraduate work and may not be aware of the services and
support available to them. Even if they attend the same institution as an undergraduate student and a graduate student, there may be a time gap between their undergraduate and graduate work that can result in “rusty research skills” (Harris, 2011).

In addition, graduate students often wear multiple hats such as students, teachers, and research assistants (Rempel, Hussong-Christian, & Mellinger, 2011). It is critical for the library to reach out and establish campus partnerships with disciplinary departments and research centers, and units as teaching and learning centers, graduate school administration, grant offices, career centers, advising, and student affairs support if we are to meet the broad needs of graduate students (Brandes, 2006). It may be necessary to combine library liaison roles and functional roles to meet the emerging needs of graduate students (Jaguszewski & Williams, 2013). Eddy and Solomon (2017) recommend that librarians adopt a “consultancy model” for library services to be more relevant for graduate students. When rethinking librarian roles, partnerships, and graduate students’ needs, it is also important to consider conceptual frameworks or theoretical models for grounding librarian practice. Although there are library frameworks such as Kuhlthau’s ISP Model (1991), or the ACRL Framework (Mays, 2016), there are also frameworks or models not often connected to library science such as Schlossberg’s Transition Theory (1984, 1995), or Adult Learning theories (McCall, Padron & Andrews, 2018). Rethinking the lens through which we view graduate students can transform how we approach the challenges discussed above. This case study will use Kuhlthau’s ISP Model (1991) and Schlossberg’s Transition Theory (1984, 1995) to explore library graduate student teaching, support, and services through a new lens.

**Case Study of University of Utah Campus-wide Graduate Student Support**

In 2013, 17 graduate students across a variety of disciplines were interviewed about their information seeking practices while attending a bi-annual campus-wide Thesis and Dissertation Boot Camp co-sponsored by the University of Utah Marriott Library and the Graduate School. In addition, detailed survey data were collected at the conclusion of the Boot Camp events from 2013–2017 and analyzed. The free week-long Boot Camp format was fairly straightforward. Students were expected to show up by 8:30 each morning for breakfast and a pep talk; then they committed to writing from 9:00 a.m.-1:00 p.m. Over the years, participation in the boot camps increased from approximately 30 students in 2012, to approximately 70 students this past year. Many more students register (70-100), but not all end up attending. During this timeframe, in addition to Boot Camp, the Head of Education Services established a committee of librarians focused on graduate student services. A series of workshops aimed at graduate student research needs was developed and offered through the library. Other changes included establishing a separate graduate student reading room with key card access for graduate students only.

**Archived Data Analysis: The Interviews and Surveys**

Boot Camp interview and survey data were collected originally to explore the information-seeking behavior and library use of Boot Camp participants. Although the Boot Camp interview data are now over five years old, I have continued to hear similar stories from graduate students across recent years; this is why I am revisiting this data. It is important to note that the original self-selected cadre of 17 PhD students who consented to interviews is likely not representative of the University of Utah graduate student population. In the year the interviews were conducted, more than 700 students were awarded the PhD degree, while only 80 participated in a Boot Camp across two semesters. Of those 80, only 17 were interviewed for this study. The interviews lasted approximately 30 minutes and were analyzed using recursive qualitative research methods as outlined by Strauss and Corbin (1998). See Appendix A for the interview questions. Analysis of the transcripts resulted in over 383 codes that were eventually winnowed down to four main themes: (1) Research and Dissertation Anxiety; (2) Making Connections; (3) The Need for Support; and (4) Feelings of Progress. A representative quote from the Research and Dissertation Anxiety theme is:

“I don’t think I would have the confidence to just email someone I haven’t met and say “hey will you help me? … there’s a lot of anxiety … Am I stupid if I’m having to go ask a librarian for help on how to do this?”

Related to the Making Connections theme, students also talked about how surprised they were that they had so much in common with students in other disciplines. One student said, “What surprised me is I’ve met a lot of people that are experiencing a similar journey … we’re a crew of people. Writing can be very lonely and it’s been a lot of fun meeting this group of people.” The third theme, Need for Support, encompassed discussion around support, but not just library support needs. Students also requested advice about dealing with their dissertation chairs, what qualitative software to use, how to organize their writing, and how to find examples of other dissertations. They wanted to be connected to support units, such as the writing center and the thesis office. An interesting category of codes here had to do with appreciation of support and one student said, “… librarians not just providing resources but also a supportive approach with a non-judgmental attitude.” The fourth theme, Feelings of Progress, focused on students discussing how good it felt to make progress and accomplish tasks and how that helped alleviate anxiety:

“But having some progress done in these five days is something I will definitely take away from this experience. … It’s sort of a normalization process of anxiety and the stress of working on a dissertation and with a bit of ambivalence.”
The surveys collected at this time provided more logistical information about the Boot Camp experience. Students did not like being interrupted by workshops; they wanted to focus on writing. They complained about not enough food variety or not enough vegan options. They also expressed concerns about not being able to attend all five days due to other commitments which led to shortening the Boot Camp from five days to four days. See the survey instrument in Appendix B. The findings from the survey and interviews suggested areas for potential research and improvement:

1. Students who self-select to participate in the Boot Camp are highly motivated to finish their projects and take advantage of library resources and librarian expertise.

2. Every student had a working knowledge of library databases and resources. If there was a notable exception it was government documents and grey literature.

3. Students reported they turned first to peer researchers, second to their teachers and dissertation committee members, and finally to librarians for research training and help. Yet, they also enjoyed the opportunity to interact with other graduate students.

4. When a library advertises its services and coaches students about the possible benefits of library consultation, students will take advantage of librarian help and expertise. In my situation, I have also seen anecdotally a large increase in consultation requests and invitations to do library research session in graduate courses, through word-of-mouth advertising. Faculty are also being more proactive about referring students to librarians.

5. Meeting with students to discuss their research plan beyond library resources, such as discussing research questions, qualitative or quantitative methods, and tools for conducting research has resulted in an opportunity for deeper relationship building with students.

**USING THE DATA TO RETHINK DISCIPLINARY GRADUATE STUDENT SUPPORT**

In addition, there had been a trend in the reduction in number of library graduate student workshops being offered due to declining attendance. With a change in leadership overseeing graduate student services, there has also been a reduction in the amount of data being collected from Boot Camp students. Therefore, I felt a need to re-evaluate my priorities for graduate support at the disciplinary level, and return to a more evidence-based data model for support and service decision-making. I am interested in a holistic approach to graduate student support (beyond Boot Camp and library graduate space redesign) and a re-focus on the affective aspects of graduate student expectations and perceptions about conducting scholarly research. This need for additional emotional support continues to come through loud and clear from our Boot Camp participants.

Therefore, I began investigating my liaison departments in the College of Education. This College has a large graduate student population. In Fall 2018, 351 students were enrolled in six masters level programs. Two departments, Education, Leadership and Policy (ELP) and Educational Psychology, housed 66.7% of the students. The four doctoral programs had 238 students enrolled, and 51.7% of those students were enrolled in the ELP PhD and EdD programs. With this data in hand, I made a decision to focus my efforts in the ELP department. With so many students to support, I decided to rethink my partnership and moved my focus from a liaison to a consultancy model.

**Using Theory for Consultancy Planning**

Using a consultancy lens as compared to a liaison lens approach required that I provide a variety of more customized services to students. I used the findings from the interviews and surveys in conjunction with the two theoretical models to lay out a plan of action and to articulate areas for intervention. Table 1 demonstrates how the four themes (Research & Dissertation Anxiety, Making Connections, Feelings of Progress and The Need for Support) could be aligned at the intersection of Kuhlthau’s ISP Model (rows) and the four “S” factors of the Schlossberg Transition Theory (columns). Two of the themes, Research & Dissertation and The Need for Support contained more negative codes and appear in the beginning stages of the ISP and in all four of the S factors. However, moving further through the six ISP stages, there is more alignment of the more positive themes Making Connections and Feelings of Progress. For the last stages of the ISP under the Social Support factor there are no themes that could be aligned. This might indicate that less social support is needed during the last two stages of the ISP. This table creates a map for where I can best intervene to calm anxiety and where I can help students articulate connections and support.
### Table 1: Aligning of the Four Qualitative Themes with Kuhlthau Information Searching Process & Schlossberg’s Transition Theories

<table>
<thead>
<tr>
<th>6 Stages of Kuhlthau’s Model of the Information Searching Process</th>
<th>Schlossberg's Transition theory (The 4 S Factors)</th>
<th>Strategies (Coping Responses)</th>
</tr>
</thead>
</table>
| **Initiation:** Developing awareness but linked with uncertainty | • Research & Dissertation Anxiety  
• Feelings of Progress | • The Need for Support  
• Research & Dissertation Anxiety | • Making Connections  
• The Need for Support |
| **Selection:** Identification of the problem & readiness to tackle it | • Feelings of Progress  
• Making Connections | • Making Connections  
• Feelings of Progress | • Making Connections  
• The Need for Support |
| **Exploration:** Encountering uncertainty & feeling less confident | • Research & Dissertation Anxiety | • The Need for Support  
• Research & Dissertation Anxiety | • The Need for Support |
| **Formulation:** Forming of a focused perspective and increase in confidence | • Feelings of Progress  
• Making Connections  
• Feelings of Progress | • Feelings of Progress | • Making Connections |
| **Collection:** Pertinent information results in deepening involvement | • Feelings of Progress  
• Making Connections | • Feelings of Progress  
• Making Connections | • Making Connections |
| **Presentation:** Satisfaction with searching & application of learning | • Making Connections  
• Feelings of Progress | • Making Connections  
• Feelings of Progress | • Making Connections |

In addition, the Making Connections theme appears most often and aligns to the models in 14 of the 24 possible options. This theme contains codes where participants discussed making connections to content, databases, articles, peers, support and help, faculty, librarians, as well as between knowledge and application in the dissertation process. This theme is one area to explore when planning new consultation opportunities because it aligns in all but one of the six ISP stages. Table 2 shows examples of consultation interventions that I have used at the different points of 4S’s and the six ISP stages.

### Table 2: Aligning Possible Interventions with Kuhlthau Information Searching Process & Schlossberg’s Transition Theories

<table>
<thead>
<tr>
<th>6 Stages of Kuhlthau’s Model of the Information Searching Process</th>
<th>Schlossberg's Transition theory (The 4 S Factors)</th>
<th>Strategies (Coping Responses)</th>
</tr>
</thead>
</table>
| **Initiation:** Developing awareness but linked with uncertainty | • Help them see they are not alone  
• You can do this!! – cheerlead – w/sincere encouragement | • Listen & offer story of own experience  
• Connect them to other students going through the same thing  
• Provide time to talk | • Encouragement – they will be different on the other side (“moving in, moving through, moving out” Schlossberg)  
• Reminder – this is a process  
• Concept mapping to visualize their topic  
• Excel spreadsheets, organizers, online project management tools to get organized |
| **Selection:** Identification of the problem & readiness to tackle it | • Encourage the following their passion – to increase readiness and motivation | • Be genuinely enthusiastic and interested in their topic  
• Provide support (options & directions)  
• Meeting with advisor may trigger anxiety or motivation – be ready to listen | • Chunk out the process – to see progress  
• Take deep breaths  
• Go for it – focus in! |
| **Exploration:** Encountering uncertainty & feeling less confident | • Be there for them when they get overwhelmed  
• Listen  
• Recognize signs of procrastination | • Provide assurances  
• Build on relationship so they are more open ask questions  
• Provide examples  
• Offer your own story  
• Provide assurances  
• Let them know uncertainty is OK  
• Ground interaction in adult learning principles | • Shared box folder  
• Break down tasks and set deadlines to see progress |
Formulation:
Forming of a focused perspective and increase in confidence
- Check in and praise efforts
- Encourage questions & uncertainty
- Scaffold support based on focusing-in-on needs
- Offer regular check in meetings to motivate and encourage
- Reminder – This is a process
- Quote “a good dissertation is a done dissertation”
- Strategies for focusing on research question

Collection:
Pertinent information results in deepening involvement
- Build more confidence with learning new tools
- Support with resources and tools
- Just in time support – specific and relevant (not the kitchen sink approach)
- Recommend they focus on seeing progress – more motivated and engaged
- Focus on light at end of tunnel
- Talk about issues at a higher level
- Help them see the bigger picture

Presentation:
Satisfaction with searching & application of learning
- Excited to be finished!
- Listen about their sense of accomplishment or possibly disappointment in the process
- Go to the defense, go to graduation
- Congratulate and encourage as needed in the final stages
- Connect to others
- Mentor as a researcher
- Encourage reflection
- Encourage publication and taking next steps
- Mentor in getting ready for the next stage
- Encourage connections to cohort
- Listen and talk about moving on

Findings from the interviews and survey data with the theoretical roadmap for interventions already being used in the College of Education.

- I use a push (not a pull) approach and hold my office hours in the College of Education building based on student recommendations.
- Many EdD students are working professionals and taking classes at night, so I provide office hours in the late afternoon and evening.
- I use a proactive advertising approach by meeting with the Dean and key faculty. Now my flyer is broadcast on the building announcement monitors.
- I provide research design and qualitative research data analysis support in addition to library research support. This has helped to develop my reputation as a mentor, not just a library liaison.
- This interview methodology will be replicated again using the same interview script and with themes compared and contrasted to enrich the preliminary study.

Off-roading to rethink how I provide graduate student research support by using new models, thinking outside the box, and asking students questions while listening to their advice and recommendations has helped me learn how to best serve my cadre of Education graduate students. Being willing to stretch my responsibilities into the broader research realm, bringing my own research experiences into librarian-student discussions, and responding to and following up on what students tell me about their dissertation/thesis/capstone experiences has helped to build my reputation as a scholarly mentor and consultant. Leveraging your strengths in addition to your librarian skills can result in a more integrated and rewarding student-librarian experience.

ACKNOWLEDGMENT

I would like to acknowledge Linda St. Clair, now retired, and Dr. Alison Regan, now at University of California Irvine for their work on the original interview and survey data collection and analysis that created the foundation for this paper.

REFERENCES


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APPENDIX A

Information Seeking Interview Question

The interview questions (most of which were modified after one of the eight follow-up questions used by Head and Eisenberg, (2009, p. 44) were as follows:

1. Do you ever turn to a person for help when you are conducting dissertation related research? If so, who? How are you hoping this person will help you? Do they end up helping?
2. Do you use research or article databases in your research? By that I mean the kinds that are available through the library Web Site or Google Scholar. How did you first find out that these databases were available?
3. Do you use librarians in your research process? Why/why not? What would you say that the University librarians are good for when you are conducting dissertation research?
4. Do you use Web sites or search engines when you are working on research for courses, or for your own personal use? Which ones do you use? At what point do you turn to these sites? How do they help you the most with your research? Do you use different search engines or websites for dissertation research vs. personal use?
5. Has participation in the boot camp increased or improved your interaction with the library? If so, how?
6. Do you have anything else to add?
APPENDIX B

Thesis and Dissertation Boot Camp Survey Instrument

Spring Dissertation Boot Camp (Spring 2017)

1. What is the level of your graduate program/research?
   ☐ Masters Level ☐ Doctoral Level

2. What College is your graduate program located in?
   ☐ Architecture + Planning ☐ Health ☐ Nursing
   ☐ Business ☐ Honors College ☐ Pharmacy
   ☐ Dentistry ☐ Humanities ☐ Science
   ☐ Education ☐ Law ☐ Social & Behavioral Science
   ☐ Engineering ☐ Medicine ☐ Social Work
   ☐ Fine Arts ☐ Mines & Earth Sciences

3. How did you find about Boot Camp? (Check all that apply)
   ☐ Word of mouth – from a fellow grad student or friend
   ☐ Graduate Advisor
   ☐ Graduate School Website
   ☐ Dissertation Advisor
   ☐ Library Website
   ☐ Librarian

4. How many days did you attend Boot Camp?
   ☐ All 5 days ☐ 4 Days ☐ 3 Days
   ☐ 2 Days ☐ 1 Day

5. Rate your overall experience of your Boot Camp experience.
   On a scale of 1 to 5, (1 being very little and 5 being a lot), please answer the following series of questions.

<table>
<thead>
<tr>
<th>1 - Very Little</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5 - Quite a Lot</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rank the amount of work you HAD HOPED TO accomplish during the Boot Camp week.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Rank the amount of work you ACTUALLY accomplished during the Boot Camp week.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>How supported you felt as you worked in the library.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>How the availability and type of work spaces in the library help you progress toward your goals during the week.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

6. Please indicate how likely or unlikely (1 being very unlikely - 5 being very likely) to the following questions.

<table>
<thead>
<tr>
<th>1 - Very Unlikely</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5 – Very Likely</th>
</tr>
</thead>
<tbody>
<tr>
<td>How likely are you to recommend Boot Camp to other students in your department?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>How likely will you continue to try to schedule time for writing, research, etc. like you did during Boot Camp?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>How likely are you to return for another Boot Camp if you are still working on your dissertation in the future?</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
7. Tell us about your interaction with the thesis office.

Had you ever met with anyone from the thesis office before Boot Camp?  
Yes ☐ No ☐ Maybe ☐

Had you submitted any part of your thesis to the thesis office BEFORE Boot Camp?  
☐ ☐ ☐

Have you submitted any part of your thesis to the thesis office SINCE Boot Camp?  
☐ ☐ ☐

Would you be interested in participating in an online Canvas community or an online self-paced course which could provide support for your dissertation/thesis work?  
☐ ☐ ☐

Would you be interested in an online for-credit Canvas course where you could learn about library research resources, get help with data analysis, and develop advanced searching and research skills?  
☐ ☐ ☐

6. Rate the amount of interaction you would like to have with students and librarians during and after Boot Camp by answering the questions below.

<table>
<thead>
<tr>
<th>More or less talking with students outside of your discipline about the dissertation process during Boot Camp?</th>
<th>1 - Less interaction</th>
<th>2</th>
<th>3 - Just about right amount of interaction</th>
<th>4</th>
<th>5 - More interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

| More or less interactions with librarians during Boot Camp? | ☐ | ☐ | ☐ | ☐ | ☐ |

| More or less interaction with the thesis office during Boot Camp? | ☐ | ☐ | ☐ | ☐ | ☐ |

7. If you attended any of the workshops, please provide any comments or suggestions about the workshops here.

8. Can you provide one example of how you interacted with other students or librarians during Boot Camp?

9. Is there anything else you would like to tell us or suggestions you might have to improve the Boot Camp experience for future semesters?

Thank you for participating in Dissertation Boot Camp this semester!