Improving Instruction & Research Support for Graduate Students:
A Mixed Methods Needs Assessment

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In this session, we will:

1. Introduce the structure of this needs assessment study
2. Provide an overview of strategies for collecting and analyzing data
3. Share findings from year one of the study
4. Discuss how the findings influence the development of library instruction across a college campus
5. Discuss next steps, including continued assessment, outreach and workflow development
Academic libraries scaffold graduate student research skills beyond the classroom

• What are these student needs?
• Who should be asked?
• What are some layers and intersections of needs?
Objectives of the Study

• Define research skills deemed necessary for graduate students’ successful development of research skills and practice

• Identify, develop, and/or expand library research support services to bolster graduate student success
Research Questions

1) What are the main research skills needed by graduate students?
2) How do the research needs of graduate students differ between degree programs? (i.e., masters, doctorate, PhD)
3) What current library services (research consultations; workshops; instruction; etc.) support the development of graduate research needs?
   1) What library services need to be developed to provide better support for student research needs?
4) How do research needs differ between distance students and students on campus?
   1) Are there services and programs that need to be developed to support distance students?
5) What library services are needed by UA faculty to support research?
6) What library services are needed by UA faculty to support teaching?
7) What are the gaps in library instructional services to graduate students in your school/department?
The How?

• Need for both graduate student and faculty input
• Complementary student and faculty questioning
• Need rich data that is feasible to analyze and report
• Strategic movement through academic colleges and departments across campus
• IRB approval
The Methods

Mixed methods approach

Convergent parallel, grounded theory – inductive and emergent

Our Data Capture

Graduate Students
• Survey, 15 min
• 8 demographic questions
• 4 questions about skills and attitude (scales, multiple selection, multiple choice)
• 3 open ended questions

Faculty
• Structured interviews, 30 min
• 7 demographic questions
• 6 research questions related to services, skills, and needs
  • Example: What current library services support the development of graduate research needs?
Recruitment

- Department and or college program administrators/department heads are identified and contacted about the study and for email distribution
- Invitations to the study are drafted beforehand and separate for faculty and students
- Survey link is provided to all graduate students in the area
- Interview invitations to faculty are provided to all faculty in the area
- Rolling process
Graduate Student Data Capture

- Surveys created in Qualtrics and distributed through Listserv with consent included
- Anonymous, no collection of identifiable information
- Demographics
  - undergraduate degree, department, type of program, years in program, online vs traditional, international status and ESL status
Graduate Student Data Capture

- Research related questions reflected skills and attitudes
- Confidence in various research processes
- Selection of skills necessary for success
  - (i.e. strategies for finding resources, data analysis, citation, evaluating sources, etc.)
- Identification of preferred mode of learning
- Identification of helpful resources/services
- Open ended – skills not learned but that would be helpful, desired resources/services, additional support services
Faculty Data Capture

- One on one interviews
- Recorded and transcribed using Zoom
  - Transcript revision in Word, deletion of video and de-identification of faculty participants
- Transcripts coded and emergent themes documented

Background/Demographics:
1. Please state your college/department.
2. What is your official title? Instructor, adjunct, clinical, associate, assistant professor, other
3. What percentage of your job description is teaching a component?
4. What level of students do you teach primarily? Undergrad, Graduate (level)
5. How many years teaching experience do you have in higher education?
6. Do you currently collaborate with UA libraries for support services either for your students or yourself? Could include instruction on info. literacy for students, or ILL, etc.
7. If no, would you be willing to collaborate?

Research based questions:
1. What do you feel are the main research skills needed by graduate students?
   a. Masters:
   b. Doctorate:
2. How do the research needs of graduate students differ between degree programs? (i.e., masters, doctorate, PhD)
3. What current library services (research consultations; workshops; instruction; etc.) support the development of graduate research needs?
   a. Masters:
   b. Doctorate:
   c. Could you give some examples of services that need to be developed to provide better support for student research needs?
4. How do research needs differ between distance students and students on campus?
   a. Masters:
   b. Doctorate:
   c. Could you give some examples of services and programs that need to be developed to support distance students?
5. What library services are needed by UA faculty to support research?
6. What library services are needed by UA faculty to support teaching?
   What are gaps in library instructional services to graduate students in your school/department?
# Crosswalk

<table>
<thead>
<tr>
<th>Research Questions</th>
<th>Graduate students</th>
<th>Faculty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What are the main research skills needed by graduate students?</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>2. How do the research needs of graduate students differ between degree programs? (i.e., masters, doctorate, PhD)</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>3. What current library services (research consultations; workshops; instruction; etc.) support the development of graduate research needs?</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>3a. What library services need to be developed to provide better support for student research needs?</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>4. Do research needs differ between distance students and students on campus?</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>4a. Are there services and programs that need to be developed to support distance students?</td>
<td></td>
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<td>7. What are gaps in library instructional services to graduate students in your school/department?</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>
Graduate Student Demographics

- **School of Social Work**
  - 389 graduate students, MSW, DSW, PhD

- **Sample of 35 students**
  - MSW – 35% (traditional 23%; accelerated 12%)
  - DSW – 38 %
  - PhD – 27%

- **Student Type**
  - BAMA online students – 57%
  - Traditional on campus students - 43%

- **Type of undergraduate degree**
  - BA (20%), BS (31%), BSW (43%)
## Perceived Skills Needed for Success

<table>
<thead>
<tr>
<th>Skills</th>
<th>Student Perceived Need (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data analysis</td>
<td>74.29</td>
</tr>
<tr>
<td>Strategies for a search string</td>
<td>65.71</td>
</tr>
<tr>
<td>Strategies for developing a research question</td>
<td>60.00</td>
</tr>
<tr>
<td>Avoiding patchwork plagiarism</td>
<td>48.57</td>
</tr>
<tr>
<td>Knowing when to go to Google Scholar and when to go to a database</td>
<td>45.71</td>
</tr>
<tr>
<td>Strategies for organizing resources and research projects</td>
<td>45.71</td>
</tr>
<tr>
<td>Effectively evaluating and choosing sources</td>
<td>42.86</td>
</tr>
<tr>
<td>Strategies for creating keywords</td>
<td>42.86</td>
</tr>
<tr>
<td>Knowing where to go to find help with research questions</td>
<td>40.00</td>
</tr>
<tr>
<td>Strategies for incorporating resources into your own research</td>
<td>40.00</td>
</tr>
<tr>
<td>Strategies for reading research articles</td>
<td>40.00</td>
</tr>
<tr>
<td>Citation styles</td>
<td>34.29</td>
</tr>
<tr>
<td>Strategies for finding resources</td>
<td>34.29</td>
</tr>
<tr>
<td>Strategies to incorporate resources in your writing</td>
<td>25.71</td>
</tr>
</tbody>
</table>
Perceived Skills Needed for Success

How many skills did graduate students feel were needed for success?

Number of Students

Total Number of Skills

1
2
3
4
5
6
7
8
9
10
11
12
13
14
Preferred Setting for Learning Research Skills

- One-on-one research consultations with a librarian: 14
- Online library created tutorials or modules: 8
- Librarian-led workshops: 6
- Online library research guides: 4
- In-class library instruction: 2
Preferred Resources

Resources and Services Students Say They Utilize

- Online library research guides: 42.86%
- Librarian-led workshops: 42.86%
- One-on-one research consultations with a librarian: 34.29%
- Online library created tutorials or modules: 31.43%
- Computers: 28.57%
- Space to study: 28.57%
- Software: 25.71%
- Inter-library loan: 22.86%
- Chat/Ask A-Librarian: 20.00%
- In-class library instruction: 20.00%
- Equipment (i.e. audio visual equipment): 11.43%
Research Process Confidence

How confident are you with the following research processes with 0% meaning not at all confident and 100% meaning total confidence and proficiency?

• Areas of confidence
  • Developing a research question
  • Identifying key words
  • Creating a search string
  • Developing strategies to find resources
  • Identifying relevant databases
  • Effectively choosing sources
  • Effectively incorporating resources into your writing
  • Citing resources (APA, MLA, Chicago, etc.)
  • General workflow

• Responses were recording using a sliding scale

• Results were analyzed using One-way ANOVA exploring
  • Type of undergraduate degree (BA, BS, BSW)
  • Graduate degree program enrolled
  • Student type (distance or traditional)
• No significant differences between groups
• BS led to higher confidence scores related to searching for resources and incorporating them into writing

Legend for type of undergraduate degree
- BA
- BS
- BSW
Research Process Confidence by Graduate Degree Program Enrolled

- No significant differences between groups
- A limitation of PhD respondents was the huge variation in response leading to failure of homogeneity of variance

Legend for type of graduate degree program
- Traditional Masters
- Accelerated Master’s Program
- Doctorate
- PhD
Research Process Confidence by Student Type

- No significant differences between groups
- Traditional on campus students demonstrated slightly higher, but not significantly different confidence scores for most areas

Legend for type of undergraduate degree
- • Traditional on campus student
- ▲ UA online student
How confident are you with the following research processes with 0% meaning not at all confident and 100% meaning total confidence and proficiency:

- Developing a research question
- Identifying keywords
- Creating a search string
- Developing strategies to find resources
- Identifying relevant databases
- Effectively choosing sources
- Effectively incorporating resources in your writing
- Citing sources (APA, MLA, Chicago, etc.)
- General workflow
Summary of Open Ended Responses

What are some research skills or tools you have not learned, but you think would be helpful for your research?

• How to search for research
  • Exhausting resources, search strings, key words, narrowing terms, using ILL

• Developing a literature review
  • Thorough, supporting research, organization of articles
What kind of resources and/or services do you wish University Libraries offered to assist you with your research?

• Database usage
  • Filters and searching, available resources by discipline, access post graduation

• Instruction
  • Individualized instruction, guides and models, classroom instruction
Is there anything else you would like to share about how the library can better support your teacher needs?

• Having workshops with the skills listed
Preliminary Faculty Data

- Three graduate teaching faculty in the School of Social Work agreed to participate
- Years of Teaching Experience
  - 22
  - Over 10
  - 20
Preliminary Faculty Data

Graduate Student Research Needs in General

• Designing a research project
• Conducting empirically based research
• Research skills that don't rely on database access
PhD/DSW Research Needs

“I don’t want to make assumptions that they’re further along, particularly those that are just starting the program, they need the basics as well, as our other graduate students would need.”

- Mixed-Methods Research
- Qualitative Research
- Systematic Review
- Literature Review
- Awareness of the tools available to them
MSW Research Needs

“From a basic point of view, the MSW students need to know how to use the information that they find within practice, whether it’s in policy practice, or direct practice organizational level practice.”

- Developing a research question
- Literature Review
- Qualitative vs. quantitative vs. Mixed methods research
- Forming partnerships with other researchers
- Participatory research/Community-based research
Distance Student Research Needs

“I think sometimes our campus, our distance students assume that they can’t participate in a workshop or they assume that they can’t access the library in certain ways unless we intentionally kind of walk them through that process.”

• Everything digital
• Digital office hours
Library Services that Support Graduate Students

“I think that those classroom visits, your availability for building relationship with the students, so they see your face and they’re not scared of you, and they see your face and they think, oh no she really meant that I could email her.”

• Workshops
• Library newsletters keeping faculty informed of what is happening in the library
• One-on-one research consultations
• Classroom visits/instruction
Services to Develop

“I don’t think there’s a need for an additional services, just awareness. I think ways to increase the awareness of what you currently do.”
Next Steps

• Identify convergent findings

• Use data to inform School of Social Work instruction and outreach practices

• Identify new areas of instruction:
  • Data Analysis
  • Open Access

• Identify areas to expand upon
  • Research Strategies related to research question and search strategy development

• Share findings with School of Social Work
Future Directions

• Gather and analyze data from each college across campus
  • Spring: College of Education; Department of Criminology & Criminal Justice
  • Fall: Department of English

• Develop a workflow to share findings with liaison librarians to inform outreach and instruction

• Use overall findings to develop research support services, instruction offerings, and outreach practices
Questions