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'Ready or Not Here We Come': Perceptions of First Year Graduate Students to Library Research Instruction

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Abstract

Students were surveyed on their perceptions of two methods of instruction on using library services related to doing advanced research in graduate education classes provided by academic librarians in partnership with graduate course instructors. The two types of information instruction were: 1) on-line sessions through the use of web-based tutorials; and 2) in class information literacy sessions in first year graduate education classes. The purpose of the study is to identify the benefits and challenges of each approach from the perspective of the graduate students. The findings will help the researchers to: 1) gain an understanding of the benefits and challenges of using existing library services for graduate students; and 2) to improve library services to better meet the needs of both the students and instructors.

In the past two decades the role of academic librarians has shifted from being a gatekeeper of print based information to a facilitator of accessing quality information both electronically and in print (Melchionda, 2007). In addition, the use of electronic course software such as Moodle and Blackboard has meant that the prominence of the library as a research space has become marginalized. Cain, Marrara, Pitre and Armour (2003) have made the point that most distance students look to their course instructors and their peers as their main educational supports. They often do not know of the support services provided by the university including resources offered by academic librarians. With online information more readily accessible to faculty and students, librarians face the challenge of promoting their expertise in finding, collecting and organizing scholarly information. More than ever, there is a move towards outreach and collaboration with faculty to integrate information literacy into courses.

Changing Nature of the Scholarly Landscape

Online library research has become increasingly complex in the past decade and the scholarly landscape facing students today is quite different from what faculty may have experienced during their graduate studies. Williamson, Bernath, Wright & Sullivan (2007) note that students today are dealing with an overabundance of information. One of the possible consequences of information overload is that students may improperly filter the information or completely stop their search (Case 2000 as cited in Williamson et al., 2007). Another consequence is that they struggle with organizing and categorizing their sources and do not possess an understanding of the underlying elements involved in citation management. (Williamson et al., 2007). Given the increase in part-time graduate programs, the expectation is that students' educational pursuits will fit into a timetable that includes family and work responsibilities. Barrett (2005) reports that one of the impacts of time constraints is a reduction in the amount of time students spend on conducting their literature reviews.

Information Literacy

Information Literacy Competency Standards for Higher Education, approved by the Association of College and Research Libraries (ACRL), define information literacy as a "set of abilities requiring individuals to recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information." (Association of College and Research Libraries, 2000). These standards were widely accepted by academic librarians in North America and beyond and are now an integral part of information literacy instruction in higher education. Gullikson (2006). Improving students information literacy is the goal of academic librarians, however it should be recognized that information literacy is an in depth process developed over time rather than a quick inoculation that can be administered in one dose. Orientation activities like library tours, organized at the beginning of the term, scavenger hunts, print and online

guides to library resources contribute to this goal. At the same time, academic librarians keep developing other delivery formats to teach students to critically evaluate and efficiently use the information.

Information Literacy Delivery

In their mission to deliver information literacy to students, academic librarians face new obstacles. The marginalization of library, discussed above, forces them to go an extra mile to reach the patrons. Today's students tend to consider their course instructors as a sole source of information, which will only widen the long observed gap between the classroom and the library unless the librarians join efforts with faculty members. Integrating information literacy into the curriculum in a number of ways, including stand-alone information literacy courses to integration in core courses has been a common theme for the past couple decades (Gullikson, 2006). In order to reach the students at their points of information needs, online components of information literacy instruction are gaining some popularity, although face-to-face instruction remains the core component, forming new hybrid models of delivery (Meehan, 2009). Rempel and Davidson (2008) point out that it is often assumed that graduate students are better skilled in research than undergraduates or better prepared to learn the necessary research skills on their own, which results in a shortage of information literacy instructional services geared toward graduate students.

Methodology

Given the importance of information literacy in graduate studies, the purpose of this study was to explore how best to support graduate students as they engage in scholarly research. As the study was to explore the nature of graduate students' perceptions of present approaches used to provide library instruction, action research was an appropriate method to employ. This approach recognizes and values the voice of the participants and demonstrates the commitment of the researchers to improving their practice. As Stringer (1993 as cited in Mills, 2003) informs us, action research allows us to "examine the ordinary, everyday, taken-for-granted ways in which we organize and carry out our private, social and professional activities" (p. 7). Action research involves the following four steps:

Identify an area of focus

Collect data

Analyze and interpret data

Develop an action plan. (Mills, 2003, p. 5)

Area of Focus

By reflecting on present professional practices for providing library instruction, our goal was to improve on the delivery of instructional sessions. The area of focus was to investigate two approaches, used jointly, to deliver library instruction: a) a web-based tutorial and b) in-class instructional sessions. Given the changing scholarly landscape, it is important that library instruction be readily accessible, relevant and realistic to all students. We wanted to identify the benefits and challenges of these instructional sessions based on the perceptions of graduate students. The research sought to answer the following questions:

How effective is the provision of an on-line tutorial which was to be completed independently as a required part of the course but not weighed as an assignment?

What do graduate students identify as the key benefits and challenges of a structured, in-class library instructional session?

What is the perceived impact of the instructional sessions?

As noted, the focus of this research was to study the delivery of library instruction to graduate students. The purpose was to improve existing practices by identifying key issues based on an exploration of the perceptions of graduate students.

Data Collection

Course instructors of graduate education classes were contacted to obtain permission to conduct research in their classrooms. If they agreed, students were fully informed of the study and invited to become participants. The study involved an on-line tutorial to be viewed independently prior to the in-class instructional session. Once the in-class session was delivered, the students were asked to complete a survey on their experiences of both the online tutorial and the in-classes sessions. Seventy-five graduate students, in various education classes in different education programs, submitted completed surveys. Thirty of the students were part of off-campus cohorts and 45 were attending courses on-campus.

Surveys were chosen as the method for gathering data as this is an effective method to gather a large amount of data in a specific area, in a relatively short time. Surveys were designed based on the review of the literature and contextualized for this particular university. One of the limitations of surveys is that you cannot individualize questions or ask different probes based on the participants' responses. Issues of confidentiality and anonymity were addressed and participants were assured that they would not suffer any negative consequences for any information that they shared.

Analysis and Interpretation of Data

To analyze the data, we immersed ourselves in the survey responses. We read and reread student responses and then independently coded the data. We then engaged in discussions about our coding. Based on the coding of repeated issues, key phrases and related terms, emerging themes were identified. Three key themes that were identified are as follows:

Lack of engagement with online tutorial

'Where to Start?'

Building Confidence

i) Lack of engagement with online tutorial

To our surprise, the uptake of the online tutorial, developed with the goal of better preparing the students for the in-class library instruction session, was minimal. Only 12 (16%) out of 75 respondents, provided feedback on the tutorials. Over 80% of students either ignored the questions about web-based tutorials or mistook them for questions about face-to-face sessions. Only two respondents out of 63 acknowledged their awareness of this component: "*Didn't have time to do online demo*" and "*I haven't actually watched any of the on-line demonstrations yet*". While the number of the students who replied to the questions regarding the online tutorial was small, we believe that even such limited findings can provide valuable information regarding students' perception of this delivery method.

It would be relatively easy to imagine that an optional online tutorial would enjoy lower attendance levels, similar to those library lectures that are not part of course requirements (McLean and Dew, 2006). In our case, however, the online tutorial was a required part of the course, yet the vast majority of the students ignored it. Although we did not receive any feedback on why student did not view the tutorial we speculate that the weight attached to it was not significant enough to generate higher participation, not unlike web-only surveys without incentives that had a response rate of 19.8% in the study by Sax, Gilmartin, and Bryant (2003). The few students, who took the online tutorial, positively evaluated it, using such comments as "*Showing the step by step helped and to be able to go through it again and again.*" and "*I liked the verbal step by step instructions to accompany the visuals.*" We found that the students are interested in using the online format together with face-to-face sessions, especially as a preparation tool, confirming similar findings by Belawati (2005): "*Both the presentation format and the one-one-one support were helpful*" and "*Actually going through the process with [the librarian] made the most sense to me, but having gone through the initial online tutorial first was a good preparation for [the librarian's] tutorial*".

ii) 'Where to start?'

It might be assumed, given the low uptake of the online tutorial that the content of the library instruction session was already familiar to the participants. Fifty seven percent (43) of all participants however, found the content of the in-class session to be “totally new” while 43% (31) of students reported it to be “somewhat new”. No one reported that the content contained “nothing new”. When looking solely at the off-campus students, 70% (21) found the content to be ‘totally new’ while 30% (9) found the session to be ‘somewhat new’. Ninety-three percent (69) of students listed learning how to use specific research tools, such as Refworks, ERIC, or navigating the library website as the ‘three most important things you learned in this in-class library session’. Forty-four percent (33) of participants listed benefits related to information literacy such as accessing needed information effectively and efficiently, and critical evaluation of information and its sources. One participant wrote, “[I] feel more confident in being able to focus on articles more relevant to search. I also have a better comprehension on the use of searching using subject terms.” Librarians are often keen to distinguish between library instruction with its leaning towards orientation, and information literacy with its emphasis on critical thinking and evaluation. Given the high number for whom the content of the workshop was “totally new”, it is not surprising that students were more likely to make note of specific tools in their feedback about the sessions.

The librarians conducting the sessions spoke to the necessity of not making assumptions of students’ research skill. This proved to be well founded as surprisingly, 20% of respondents (15) reported that they had not used the Library’s research tools prior to the session. This was demonstrated by comments such as “*I had no prior knowledge / how to's about databased research, so I had no idea where to even begin. It may as well have been a foreign language*”. This reinforces the findings of Williams (2000) and Cain, Marrara, Pitre, & Armour (2003) that graduate students are not knowledgeable about the library resources available to them. Somewhat unexpected were the comments from 20% (15) of the participants that the library website itself was a challenge to be surmounted. “*Where to start! The university library site can be daunting without direction - thank you!*” A third of the participants who were distance students (10) remarked that they benefited from learning how to access the library’s resources from off-campus. One of the participants commented that one fears was the “*Cost of fees for logging in to various sites - now I realize the access is there free though MSVU. Great.*” These findings are in keeping with Slade’s (2004) observation that the library services are underutilized by distance students and that there is a need for increased promotion and marketing, publicity, and library instruction. Although no questions were specifically asked about time or time management, just under a quarter of the participants (18) made references to the time that research takes or wishing they had more time to practice and conduct research. Comments such as, “*Research takes a great deal of time, but this new on-line system is very efficient and most convenient esp. for part-time/distance education*” and “*it gave me the knowledge of how to narrow my*

search. *I was always overwhelmed by the amount of time it takes to limit what I needed*", were included in the feedback about the benefits of the session.

iii) Building Confidence

A reoccurring issue was the participant's anxiety when faced with conducting research. They repeatedly referred to feelings of being "overwhelmed," "discouraged," and having "zero confidence" when asked about scholarly research. This is an important finding and has many implications for encouraging graduate education students to engage in research in their daily teaching practices and for encouraging them to pursue advance graduate studies. Graduate students need to feel comfortable and confident to use technology to enhance their research skills. Baron and Strout-Dapaz (2000) stress the need to address the learners' comfort level if they are to successfully engage in scholarly research. The knowledge of basic research skills is a critical aspect of the overarching goal of graduate education in our democratic society to "prepare citizens to base their civic deliberations upon available and reliable information" (DelliCarpini & Campbell, 2007, p. 19).

The in-class session had many benefits identified by the participants as it was viewed as an enhancer to their learning rather than an added responsibility. It was interesting to read of the change from participants being totally overwhelmed by the request to work on research skills to their sense of comfort, once they received an in-class, step-by-step instructional session. For example, one participant wrote: *"I thought it would be overwhelming but the instructor took us through everything patiently, and I feel able to conduct a search, save my work and create a bibliography"* (participant, in-class session). This session also enhanced the students' confidence to now go to the online tutorial and work independently on acquiring research skills. As noted by another participant, *"...it was all so new to me. More confidence will come with practice"* (participant, in-class session). It is important to support students' learning with planned, structured sessions as they transition from a face-to-face, print based learning approach to an increasingly online learning environment. As Grafton (2007 as cited in Wallach, 2009) has stated, "Conservatively, ninety-five per cent of all scholarly inquiries start at Google" (p. 221) thus there will be students who are still transitioning to scholarly on-line research. It can be a challenge for students to learn library jargon, electronic indexes, or the use of Boolean logic to do a search (Block, 2007).

Future Action Plan

Based on the themes that emerged from this study, we are making the following recommendations for the future delivery of library instruction for graduate students.

Researching and promoting the use of online tutorials

The limited number of participants in our study who took the online tutorial was unexpected. We recommend that more research be done to determine the reasons and motivations for students' participation in online tutorials. Future studies would benefit from including in the surveys questions about the reasons behind doing or skipping online tutorials.

Additionally, we recommend that instructors and academic librarians together devise ways to promote the online tutorials, since mere inclusion of the tutorial in the curriculum does not guarantee that it will be taken. Although some librarians (Dewald; Dewald; Moore and Moylan, as cited in Donaldson 2000) suggest making online tutorials mandatory for all students, requiring them to present a discipline-specific assignment at the end of the tutorial that would give students a certain percentage of the final mark, we suggest a different approach. Instead of using graded assignments or other quizzes that can only contribute to students' anxiety, we would advocate asking them to write a response to their experience using the online tutorial or invite them to use the newly acquired knowledge by working with the course instructor to suggest further improvements.

Instructors and librarians could also ease potential students' anxiety and draw their attention to the tutorial by walking through the first steps during the class time. There may other ways to encourage the students to complete the online tutorial by requesting that they write a brief response to their experiences. These responses could be used to gain a better understanding of the tutorial, both its strengths and areas of need. Course instructors may also suggest ways to encourage the students to complete the tutorial.

Connecting with Students, Contextualizing Learning

The finding that the participants are not fully aware of library resources and are often overwhelmed about approaching scholarly research is a familiar one to most academic librarians. We recommend that librarians continue their outreach to students and faculty to promote library services and resources. It is especially important to recognize that students have range of research experience, and to be prepared to meet the students at a basic levels and scaffolding the development of critical evaluation of sources. It is equally important to place these efforts in the context of students who are balancing multiple responsibilities and are acutely sensitive to time. Time invested in instruction could be placed in the framework of saving time by learning how to search efficiently.

Jacobson and Xu (2004) note the importance of a flexible, engaged teaching style in motivating students in information literacy classes. We recommend librarians employ a variety of instructional approaches including, step by step demonstration, time

for hands-on practice with the student's own research problems, and encouraging active student participation. These instructional techniques were commented upon by many of the participants, 80% commented upon either the step by step nature of the demonstration, or the hands on practice that was part of the session. Although there were no direct questions regarding the librarians instruction, their flexible teaching style was commented upon by 33 (44%) of the participants. Stemler, Elliot, Grigorenko, and Sternberg (2006) emphasized the need to create a warm and welcoming atmosphere to promote learning. Jacobson and Xu (2004) advocate that "good teaching behaviours promote student motivation and encourage them to learn" (p. 43).

Building Collaborative Relationships

Based on the positive response to the in-class sessions, a recommended change would be to enhance the collaborative nature of these sessions by infusing this scholarly research instruction into the assigned course requirements. For example, the librarians could work with the students, in collaboration with the faculty member, to complete an actual research assignment. This would enhance the meaningfulness of the instructional sessions and would encourage students to complete the on-line tutorial prior to the structured, in-class session. To decide on how this could proceed, surveys could be given to faculty members to gain an understanding of their perspectives. Faculty are often trying to address many issues in their courses and may not want to take additional class time to do this instructional aspect of scholarly research. To address this issue and to enhance the sustainability, instructors that teach the initial, required courses on research literacy could be invited to be a part of an ongoing collaboration with the academic librarians. Additional sessions, if requested by other instructors, could be used to target specific areas based on identified student needs.

Often faculty assume that students will pick up research skills over the course of their studies (Williams, 2000) however; Michalak (1976 as cited in Blummer, 2009) identified the importance of using a collaborative approach between faculty and librarians that involved students in library instruction that was a part of the formal course credit. The effectiveness of this approach could be assessed in various ways such as a citation analysis of future research papers. The value of integrating library instruction into assigned course work and involving one-on-one consultation with a librarian in a search query is highly recommended (Kazlauskan (1987 as cited in Blummer, 2009). The academic librarian has become a vital resource in our age of ever expanding use of electronic resources, databases, university commons, information management and overall electronic communication. Many other important aspects of scholarly research could be addressed in a course-long approach such as how to access, evaluate and synthesize information, ethical issues and copyright concerns.

To extend on the in-class, course instructional sessions, graduate students could engage in long term scheduled sessions with librarians throughout their program. The following research library standards set by the Association of College and Research Librarian (ACRL) could serve as a guide for expected outcomes from these sessions:

Determine the extent of information needed

Access the needed information effectively and efficiently

Evaluate information and its sources critically

Incorporate selected information into one's knowledge base

Use information effectively to accomplish a specific purpose

Understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally. (Wallach, 2009, p. 227 – 228)

Final Thoughts

In our rapidly paced world and with the ever changing nature of technology, it becomes increasingly important to teach students skills necessary to find needed information and to be able to critically evaluate it. Information literacy is most efficiently delivered when instructors and academic librarians join efforts in integrating it into the curriculum. This study explored the nature of graduate students' perceptions of present approaches to provision of library instruction. We believe that our findings will contribute to the further advancement of library instruction for university students.

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