

2016

Planning LIS doctoral education around a focused theme: A report on the B2A Program.

Renee Kapusniak

University of Wisconsin-Milwaukee School of Information Studies, kapusni2@uwm.edu

Jeannette Glover

University of Wisconsin-Milwaukee School of Information Studies, jrr4@uwm.edu

Adriana McCleer

University of Wisconsin-Milwaukee School of Information Studies, amccleer@uwm.edu

Jennifer Thiele

University of Wisconsin-Milwaukee School of Information Studies, jhaase@uwm.edu

Dietmar Wolfram

University of Wisconsin - Milwaukee School of Information Studies, dwolfram@uwm.edu

Follow this and additional works at: http://dc.uwm.edu/sois_facpubs

 Part of the [Library and Information Science Commons](#)

Recommended Citation

Bennett-Kapusniak, R., Glover, J., McCleer, A., Thiele, J., & Wolfram, D. (2016). Planning LIS doctoral education around a focused theme: A report on the B2A Program. *Journal of Education for Library and Information Science* 57(1), 69-78.

This Article is brought to you for free and open access by UWM Digital Commons. It has been accepted for inclusion in School of Information Studies Faculty Articles by an authorized administrator of UWM Digital Commons. For more information, please contact kristinw@uwm.edu.

Preprint version of: Bennett-Kapusniak, R., Glover, J., McCleer, A., Thiele, J., & Wolfram, D. (2016). Planning LIS doctoral education around a focused theme: A report on the B2A Program. *Journal of Education for Library and Information Science* 57(1), 69-78.

**PLANNING LIS DOCTORAL EDUCATION AROUND A FOCUSED THEME:
A REPORT ON THE B2A PROGRAM**

Renee Bennett-Kapusniak, School of Information Studies, University of Wisconsin-Milwaukee.
Email: kapusni2@uwm.edu

Jeannette Glover, School of Information Studies, University of Wisconsin-Milwaukee.
Email: jrr4@uwm.edu

Adriana McCleer, School of Information Studies, University of Wisconsin-Milwaukee.
Email: amccleer@uwm.edu

Jennifer Thiele, School of Information Studies, University of Wisconsin-Milwaukee.
Email: jhaase@uwm.edu

Dietmar Wolfram, School of Information Studies, University of Wisconsin-Milwaukee.
Email: dwolfram@uwm.edu

Abstract

This report discusses the Overcoming Barriers to Information Access (B2A) program, a doctoral cohort program at the University of Wisconsin-Milwaukee funded by the Institute for Museum and Library Services. The program has focused on educating the next generation of doctoral graduates in library and information science with an emphasis on the theme of overcoming barriers to information access. Fellows were provided resources to support their educational activities, research and instructional experiences. The principal investigator for the program and the B2A Fellows reflect on the challenges and the rewards of their experiences in the program. Key findings that emerged include the importance of community throughout the program and exposure to diverse perspectives. Although funding packages provide important resources to students, they do not buy extra time. The reflections provide insights into the doctoral student experience that can benefit other library and information science doctoral programs.

Keywords: Doctoral Education; Information Studies PhD Programs; Information Access Barriers; Student Support; Mentoring

Introduction

Doctoral education in library and information science (LIS), like the field itself, is relatively new in comparison to other established disciplines in the sciences and social sciences. It is also an area that has not received as much attention in the literature as masters level programs in the field (Druin et al., 2009). The first doctoral program in library science in North America was developed at the University of Chicago Graduate Library School, a pioneer in advanced education in library science. Within a few years of its inception, the school produced its first doctoral graduate in 1930 (Richardson, 2010). By the end of the 1950s, the number of doctoral programs had increased to six, but the number of doctoral graduates remained small. This number increased dramatically in the 1970s, with more modest increases since then (Sugimoto, Russell & Grant, 2009). The most recent Association for Library and Information Science Education (ALISE) statistical report from 2012 indicates that there were more than 1,400 doctoral students in North America at 30 schools/departments/colleges with American Library Association (ALA)-accredited masters programs (Wallace, 2012).

Despite the large numbers of existing doctoral students in LIS, there continue to be concerns over a shortage of qualified doctoral graduates to occupy academic positions at post-secondary institutions (Seavey, 2005). The 2012 ALISE Statistical Report reported that 55% of LIS faculty members were at least 50 years old and 27% were 60 or older (Wallace, 2012). A competing factor that reduces the pool of qualified graduates for careers in the professoriate is that graduates may pursue careers in library administration or other settings (Whitbeck, 1991a). Sugimoto, Russell and Grant (2009) observed that only 22% of LIS doctoral graduates from 1998-2007 held full time positions at ALISE schools. Also reducing the pool of potential academics is the fact that completion rates for doctoral programs in a number of fields in the United States are not encouraging. Research conducted by the Council of Graduate Schools Ph.D. Completion Project revealed that, for the social sciences, only 11.5% of the students in the programs studied were able to complete their PhD after four years, and only 55.9% had completed the degree after ten years (Council of Graduate Schools, 2008). Although no recent data on mean completion time for LIS PhD programs could be found, Whitbeck (1991b) reported that for students who did complete their degree, the mean completion time was 5.9 years for students who graduated in the late 1980s.

This work in progress reports on the Overcoming Barriers to Information Access (B2A) program, a doctoral cohort program at the University of Wisconsin-Milwaukee funded by the Institute for Museum and Library Services (IMLS). The program has focused on educating the next generation of doctoral graduates in library and information science by guiding the students' studies around a defined theme of overcoming barriers to information access.

Doctoral Program Success Factors and Challenges

The success factors for the completion of LIS doctoral program milestones--from initial coursework to dissertation defense--have not been extensively studied, although aspects of the doctoral experience and their impact on future success have been investigated. Challenges or barriers that exist arise from a number of sources including socioeconomic and program-specific factors. In perhaps the earliest comprehensive examination of LIS doctoral programs, Danton (1959) pointed to the high attrition rates in the few LIS doctoral programs that existed at the time. He noted, "Without exception, the major problem cited is the inadequate number and amount of

research grants, fellowships, and teaching assistantships for doctoral students; or its corollary, the difficulty of attracting sufficient numbers of very good students” (Danton, 1959, p. 439). More than 30 years later, Whitbeck (1991b) echoed this sentiment in his survey of North American LIS doctoral programs when he indicated that the most frequently reported problem by doctoral students was lack of financial support.

Other factors also play a positive or negative role in doctoral student success and perceptions, including socialization (Gardner, 2010) and the role of faculty in creating a positive experience for students (Klingler, 2006). The literature has also addressed experiences in individual doctoral programs. Hernon and Schwartz (2008), in reflecting on features believed to be important in the recently developed PhD program at Simmons College in managerial leadership in the information professions, found several areas of emphasis to be critical in their students’ education. These included integral coverage of issues of diversity throughout the curriculum and completion of research projects of publishable quality prior to undertaking dissertation research. Druin et al. (2009), in outlining the University of Maryland’s iSchool modular method for doctoral education, emphasized the importance of broad perspectives to allow students to view problems through multiple lenses. Issues of diversity and representation in LIS doctoral programs and the academy have been addressed in several studies. Adkins (2004) investigated barriers and challenges to the recruitment of Latino LIS faculty and identified four themes reported by the participants: isolation from academe, ethnocentrism within LIS education, financial concerns, and personal and family concerns. In a similar vein, Franklin and Jaeger (2007) drew attention to the dearth of representation in the LIS professoriate by African Americans and Latinos, in particular. Gender issues have also influenced the LIS academy. Maack and Passet (1994) examined female faculty career paths in LIS, challenges encountered and the importance of mentoring--and being mentored. The importance of effective mentoring is has been reflected in two more recent publications (Sugimoto, 2012a, 2012b) in She surveyed and interviewed full time LIS faculty members at schools with ALA-accredited programs. Although advisors and advisees believed that the advisor’s and advisee’s research were sufficiently discussed, both felt that some topics needed more consideration such as university resources, pedagogy preparation, preparing for presentations/publications, and writing grant proposals.

The B2A program addresses several of the issues outlined in the literature regarding challenges in LIS doctoral education (e.g., lack of financial support, exposure to research, mentoring, promotion of diversity) and may serve as a model for LIS doctoral education.

Overview of the B2A Program

The B2A program was funded by IMLS for the period 2010-2014 (with a one year no cost extension to 2015) at the University of Wisconsin-Milwaukee School of Information Studies (SOIS). The primary goals of the program were to recruit a cohort of qualified PhD candidates, acculturate them into the LIS field and SOIS academic research environment and mentor them during their studies and research. Then, ultimately, the program would prepare them to be able to take on post-graduate leadership positions in the field and build a network of support to sustain their professional development throughout their careers. In keeping with IMLS priorities, emphasis was placed on the recruitment of individuals from under-represented groups and first generation college attendees, although all qualified applicants with an expressed interest in the focus of the program were considered.

The program theme of overcoming barriers to information access was selected to allow the grant beneficiaries, referred to as B2A Fellows, to pursue their research interests under a common umbrella. The theme was broad enough to encompass many aspects of information studies and areas of need in the LIS academy based on advertised faculty openings. The selected theme was also a natural fit for the areas of emphasis in the SOIS PhD program and the research interests of the SOIS faculty. Information access barriers may be broadly defined. They can be intellectual, stemming from bias or lack of user knowledge, or physical, based on a lack of access or service availability. As examples, information access may be limited through bias in classification and indexing that stems from issues of race, sexuality, gender, religion, and ethnicity. Glover (2014), for instance, espouses that some of these biases are a result of the worldview and underlying philosophical background in which “Western” classification systems were founded, which differ from the worldviews of people of other races and ethnic backgrounds. The complexities of information policy that help negotiate barriers to access touch on issues of the Digital Divide. Rural public libraries that do provide access to the Internet continue to struggle with poor broadband infrastructure, outdated equipment, old Carnegie buildings, elimination of federated library systems and inadequate local funding structures (Thiele, 2013). In spite of ongoing access limitations, many sources of information are increasingly available online only. This could present challenges for adults’ midlife and older (50+) who have diverse technological skills. More public library technological programming and services aimed specifically at this age group need to be provided (Bennett-Kapusniak, 2013). Policy decisions may also impact intellectual freedom. Public libraries and library boards make decisions about their collections that balance LIS principles and community interests that impact intellectual freedom and access to information (Zimmer & McCleer, 2014). These are issues that have been investigated by the B2A Fellows.

An extensive promotion and recruitment effort was undertaken in 2010 after notification of receipt of the grant in the summer of 2010. Six qualified applicants were extended admission. All were non-traditional students, and all but one had received a graduate degree at least two years earlier and had been working in the field or in allied areas prior to entering the doctoral program. Because recruitment efforts began after admissions had already been made for fall 2010, most of the B2A Fellows were admitted for the 2011-12 academic year. Once admitted, Fellows followed the same curriculum as all SOIS doctoral students, but with added expectations and opportunities. Funding through the B2A grant provided Fellows with additional financial support for stipends, education-related supplies and expenses, computing equipment, and travel support for conference attendance. Fellows undertook coursework at a full-time rate of nine credits per semester during their first two years in the doctoral program. All doctoral students at this time were expected to complete a minimum of 12 credits of coursework in their major area (information organization, information policy, information retrieval), 9 credits in a minor area (any relevant topical area from within the school or elsewhere on campus) and 12 credits in research methods, with an expectation of completed coursework in both quantitative and qualitative methods.

Fellows were paired each semester with one or more faculty members to engage in research activities during this time. Products arising from collaborations with faculty members or self-initiated research efforts began to appear in the second year of the program. To stimulate a dialogue related to research issues relevant to the B2A program themes, B2A Brown Bag presentations were organized for the 2011-12 academic year. Six presentations were made by SOIS faculty addressing research topics related to information access barriers. During the following academic year, the Fellows provided the B2A Brown Bag presentations by highlighting the relevant research projects they had been conducting. The Fellows were encouraged to submit their work for presentation to

relevant professional and research meetings. In addition to the Fellows' own presentations of their work, two panel sessions were organized at selected conferences to highlight the B2A program and the Fellows' research on information access barriers. The first panel was presented at the 2012 Joint Conference of Librarians of Color (JCLC), with the second panel presented at the 2015 ALISE conference.

The third year of the program was used to prepare for and complete preparatory essays, a required part of the doctoral program equivalent to preliminary examinations. The preparatory essays require doctoral students to develop extensive papers over a two-month period on topics related to their major area, minor area and research methods. Assistantships were shifted from a research focus to teaching assistantships to begin providing experience in instruction and pedagogy, with the intent of providing self-standing teaching experiences for the Fellows by graduation. Once doctoral students successfully defended their preparatory essays, they became doctoral candidates who could then focus on their dissertation research topics. This represents an important time of transition, when students' academic schedules, which have been dictated by course calendars and deadlines, become less structured and the focus of the students' efforts narrows to the more self-directed aspects of the dissertation proposal and research.

Ongoing mentoring by multiple individuals is an important aspect of the doctoral experience (Sugimoto, 2010). To continue regular contact among the B2A Fellows and the grant principal investigator (PI), the PI organized monthly informal lunch sessions to discuss Fellows' progress and life in the academy. These monthly opportunities to meet continued into the fourth year of the students' program. Monthly doctoral workshops were also organized for all doctoral students in the Information Studies program. Although not specifically part of the B2A program, the topics covered by the workshops were of direct relevance to the Fellows' studies and career goals, covering research, teaching and career development.

As of the end of the funding period for the B2A program, four Fellows have continued with the program and have been focusing on their dissertations. Four years of federal funding have allowed the Fellows to advance to their dissertation research, but, as noted by the Council of Graduate Schools (2008) and Whitbeck (1991b), additional time is needed by most doctoral students to complete their degrees. Still, the funding provided by the project grant has made it possible for the Fellows to contribute to professional and scholarly endeavors. The initial impact of the program can be seen in the scholarly and professional activities of the Fellows. Products of scholarship produced by the Fellows during their studies have included: eight journal articles receiving 12 citations according to Google Scholar, three conference proceeding publications receiving two citations, 10 poster presentations receiving 14 citations, 32 conference presentations (local, regional, national and international) and seven invited presentations. Some of the Fellows have occupied leadership roles in professional societies. Each of the four Fellows has served as a teaching assistant for multiple courses and each has been approved to serve as the instructor of record for one or more courses. To date, two Fellows have had the opportunity to serve as instructors for one or two SOIS courses. Several of the Fellows have also received competitive academic or professional awards, including post-B2A funding awarded through the UWM Graduate School to continue full-time study, attendance at the Oxford Internet Institute Summer Doctoral Programme and two Doctoral Students to ALISE Grants.

Reflections on the B2A Program

The B2A program, with the support of IMLS, has allowed SOIS to recruit a group of motivated doctoral students who have brought a range of professional experiences in LIS and allied areas. The funding package has made it possible for the B2A Fellows to focus on their studies, engage in research and instructional activities, and to present their work at conferences.

The cohort approach, where students have been admitted under a common theme, also helped in motivating B2A Fellows and provided a sense of community. Although the Fellows have each pursued their own areas of research interest, the B2A theme has provided an umbrella under which all Fellows may identify commonalities. Far from limiting the doctoral experience, the theme of access barriers has allowed the Fellows to be exposed to a broad array of research topics and methodological approaches through their studies and interactions with faculty members and fellow students.

Successful completion of the milestones of the program has required more than adequate access to resources. Doctoral student attrition is a perennial issue that was noted in LIS even as early as Danton's (1959) pioneering work. Although factors such as financial resources have been identified as a key cause by Danton and Whitbeck (1991a), some factors independent of the doctoral program can play a role in the completion time and continuation of doctoral students. These cannot be predicted. Significant life events and difficult personal situations affected several of the Fellows during the grant period. Two of the B2A Fellows ultimately decided to withdraw from the program for personal reasons.

The Fellows were asked to reflect on the most rewarding aspects of the B2A program. Two themes emerged from this reflection: camaraderie and the exposure to different research areas that helped to shape the Fellows' research focus. One Fellow remarked:

“As Gardner (2010) discussed, social camaraderie and clarity regarding the guidelines were an integral part and rewarding experience for me in the B2A program. Right from the beginning, I felt close to everyone involved in B2A. The camaraderie provided support when I needed a boost of confidence as well as fostering collaborations in broader areas beyond my primary focus.”

Similarly, other Fellows noted:

“The relationships I formed with my cohort of B2A Fellows are rooted in personal and professional connections. My peers provided support and encouragement through personal and academic challenges and triumphs. We all worked toward similar goals at varying paces, so we had opportunities to champion each other along the way. We leveraged our strong relationships to collaborate on academic research and classroom instruction.”

and

“I also gained so much from my relationships with my cohort.”

The unifying theme of information access barriers along with the exposure to a variety of research areas and approaches was also noted as a benefit of the program in helping Fellows to identify research areas for study:

“My focus has been clear since I entered the B2A program since the guidelines under the B2A grant specifically had me looking at Barriers to Access. This was beneficial when deciding on my major area of research interest since there are many topics to research within the LIS field and I could have taken a longer time deciding with the many choices available to pursue.”

The areas of research focus initially identified by several of the Fellows changed with exposure to different topics:

“The research topic I decided on was not in my original vision for my doctoral research. Through coursework and faculty mentorship, I found a way to develop a research agenda that connected my experience as a Tucson, Arizona public librarian with my passion for community engagement and improving information access for and with Latinas/os. This personal connection has provided fuel for my intellectual pursuits.”

Furthermore,

“Having a research stream that was slightly out of the comfort zone and realm of my cohort was beneficial to me in that they were able to give me outside perspectives of my research. Also, I realize that even though we all research different things, in the end all of our research is bound so closely together that there were endless opportunities for collaboration. Being able to not just talk to members of the cohort as well as other colleagues and professors really helped me develop my own research stream and niche in the profession. Another thing for me is that prior to this program I was always being pushed into leadership positions because of the potential that others saw in me, and now I have finally come to realize that I am indeed a leader and this program has really brought out the leader in me.”

Another observed,

“My original research agenda grew dramatically from when I entered the program. As our relationships developed within our cohort, it led us to have meaningful discussions about information access in several different contexts. These discussions led to other conversations with mentoring professors about their own similar research. My perspective coming into this program was very limited, working as a professional library director for several years. Having the ability to engage in these conversations gave me an opportunity to back up and look at major historical and philosophical issues that have impacted practice. This larger perspective informs everything I do, and will make me a better practitioner and advocate overall.”

In addition to the rewards derived from the B2A program, Fellows were asked to reflect on the biggest challenges they encountered in completing the PhD program requirements and how they have been able to address them. The most frequently reported challenge related to finding a work-life balance, where outside obligations also competed for the Fellows' time:

“The biggest challenge that I have faced during this program is developing a balance between work, life, family, and all the other commitments that I made prior to the program. I started the program already adjusting to the change that had occurred in my family before joining the program so adding classes along with research and other responsibilities added to my list of adjustments. I had to figure out what worked for me at any given time so I placed everything that I had to do during that time in a list of priorities. With an infant at the beginning of the program I learned to squeeze in reading and research during naps, etc. As my infant grew into a toddler I was able to devote more time to research and scholarly activities, so I didn’t start off wanting to conquer the research world, but now I am ready and more able to.”

“My biggest challenge has been realizing balance in my work, particularly as responsibilities have changed throughout the course of my scholarship. I enjoy collaborative work and socializing with my peers, which had the potential to interfere with my time to engage in deep thought and intellectual exploration in my independent work. Early on, one of my faculty mentors reminded me how important it was to slow down and really focus on *my* doctoral research. I found that the slower, focused process of research and knowledge creation produced higher quality results. As my responsibilities increased in the program, I sought out strategies to make my independent research a priority among collaborative research, teaching, and service.”

“Creating a work-life balance was one of the most challenging issues for me throughout this program. Scholarship in general is not a 9-5 endeavor, but I found that I had to be vigilant at carving out time to complete my research and reading. This can be difficult to explain to family members who might view this time as indulgent. Neither of my parents graduated from high school, much less attended college, so it was not easy to explain the importance of what I was doing. In addition to that, having three small children was not always conducive to concentration within my living environment. Recognizing this and organizing my time were critical to working with research deadlines and personal deadlines I set for myself.”

This reflection of the PhD program being like a full time job was also shared by another Fellow:

“My biggest challenge I encountered in the program concurred also with Gardner (2010) who mentioned how self-direction was important. Self-direction, to me, meant I was in charge of what I needed to accomplish and where I wanted to take my research. This was challenging as I moved through the different stages of the PhD program and also dealing with the outside realities of daily life. It was easy to want to work 24/7 on a given project or when life interfered, not want to work at all on my research. I overcame this obstacle by treating the program as a “job” out in the workforce. Creating a schedule for myself and working a normal workday kept me focused and directed on the given objectives I had created for the day as well as giving me time away at home to focus on other areas of my life outside of the PhD environment so I would not burn out.”

In summary, these reflections echo issues noted in earlier studies of doctoral education, but also provide additional insights. The key points arising from the reflections include:

- *The importance of community* – The unifying theme of the B2A program provided a common learning experience that brought the Fellows together. Given that each of the Fellows had been working prior to returning for a PhD, the cohort reduced a feeling of isolation in the program. A sense of community doesn't just extend to other doctoral students, but also with faculty members who serve as instructors and mentors. Ongoing interaction opportunities throughout the program are vital, particularly once students have reached dissertator status and are focused on their dissertation research.
- *The value of diverse perspectives* - Interactions with multiple faculty members exposed students to a range of instructional methods, research ideas and methodological approaches, which broadened the Fellows' perspectives on topics relevant to the field and helped to inform how they approached their own research and instruction.
- *Funding packages can provide resources, but do not buy time* - Adequate funding may provide the opportunity to attend a doctoral program full time so that recipients don't need to worry as much about making ends meet, but the funding does not create additional time. Obligations independent of the doctoral program remain during the program. One coping strategy, especially for a returning student, is to view the PhD program as a full time job, with sufficient time allocated for program-related activities, but also time for outside obligations.

Next Steps

At this time, the four B2A Fellows are post-proposal and focusing on their dissertations. One of the Fellows completed the program at the end of 2015, with another anticipating completion in spring of 2016. The remaining Fellows are anticipated to complete the program within six years of admission, which would still be faster than the mean completion time for students in the social sciences. The long term impact of the B2A program on the careers of the Fellows is something that can only be fully assessed in the future.

Conclusions

The need for doctorally-educated LIS graduates continues to be high, particularly in academe where vacancies by an aging professoriate will need to be replaced by a new generation of academics (Seavey, 2005). The study of LIS doctoral education is also an area that has not received as much attention in the research literature as Master's level program in the field (Druin et al., 2009). The present work in progress has reported on the B2A program, an IMLS funded initiative that has focused on a cohort approach around a specified theme. The focus of the program has allowed the Fellows to progress through their studies as a cohort under the broadly defined theme of overcoming barriers to information access. The program has addressed success factors reported by earlier literature, including adequate funding, diversity of educational experience and exposure to research and mentoring while pursuing doctoral studies in a shared learning environment.

The limited scope of the B2A program does not allow the authors to generalize the findings. Nevertheless, the insights gained may be helpful to other doctoral programs and students for

planning doctoral studies and identifying factors that lead to successful and rewarding educational experiences. The camaraderie and focus afforded by the themed cohort approach of the B2A program allowed the Fellows to engage in a shared learning experience. It also decreased a sense of isolation for the Fellows, who were returning, non-traditional students. Although doctoral education may be perceived as narrow or specialized (i.e., learning “more and more about less and less”) and even more so under a specific theme, the exposure to diverse perspectives was identified as an important benefit of the program. The breadth of research and instructional perspectives helped to inform how the Fellows identified their own research topics, methodological perspectives and approaches to instruction. Work-life balance was identified as a key challenge, as familial and other obligations remain during the doctoral program, even with sufficient funding. Money does not necessarily resolve the issue of time, although a sustained period of funding that goes beyond subsistence levels can help motivated students to reach the milestones needed to complete the doctoral degree. Additional investigations of LIS doctoral experiences undertaken on a larger scale are needed to confirm the present findings.

Acknowledgements

This project was made possible in part by the Institute of Museum and Library Services (Grant #: RE-02-10-0007-10). The views, findings, conclusions or recommendations expressed in this article do not necessarily represent those of the Institute of Museum and Library Services. We would also like to acknowledge the faculty and staff of SOIS for their support of the B2A Fellows.

References

Adkins, D. (2004). Latino librarians on becoming LIS educators: An exploratory investigation of the barriers in recruiting Latino faculty. *Journal of Education for Library and Information Science*, 45(2), 149-161.

Bennett-Kapusniak, R. (2013). Older adults and the public library: The impact of the boomer generation. *Public Library Quarterly*, 32(3), 204-222.

Council of Graduate Schools (2008). Ph.D. Completion Project. Program Completion Data. Table 1. Cumulative Ten-Year Completion Rates by Program, Broad Field, STEM vs. SSH, and Overall. Available: http://www.phdcompletion.org/quantitative/book1_quant.asp.

Danton, J. P. (1959). Doctoral study in librarianship in the United States. *College and Research Libraries*, 20(6), 435-453.

Druin, A., Jaeger, P. T., Golbeck, J., Fleischmann, K. R., Lin, J., Qu, Y., Wang, P., & Xie, B. (2009). The Maryland modular method: An approach to doctoral education in information studies. *Journal of Education for Library and Information Science*, 50(4), 293-301.

Franklin, R. E., & Jaeger, P. T. (2007). A decade of doctorates: An examination of dissertations written by African American women in library and information studies, 1993-2003. *Journal of Education for Library and Information Science*, 48(3), 187-201.

- Gardner, S. K. (2010). Contrasting the socialization experiences of doctoral students in high-and low-completing departments: A qualitative analysis of disciplinary contexts at one institution. *The Journal of Higher Education*, 81(1), 61-81.
- Glover, J. (2014). *The way we see it: A critical analysis of classification systems using Tribal Crit.* Unpublished manuscript.
- Hernon, P., & Schwartz, C. (2008). Reflections on a new Ph.D. program: Thoughts of interest to the profession. *The Journal of Academic Librarianship*, 34(1), 1-2.
- Klingler, S. L. (2006). What makes a quality Ph.D. program in library and information sciences?. Unpublished doctoral dissertation. University of North Texas, Denton, Texas. UNT Digital Library. <http://digital.library.unt.edu/ark:/67531/metadc5499/>.
- Maack, M. N., & Passet, J. E. (1994). *Aspirations and mentoring in an academic environment.* Westport, CT: Greenwood Press.
- Richardson, J. V. (2010). History of American library science: Its origins and early development. In M. J. Bates & M. N. Maack (Ed.), *Encyclopedia of library and information sciences.* (3rd ed., pp. 1-9).
- Seavey, C. A. (2005). The coming crisis in education for librarianship, *American Libraries*, 36(9), 54-6.
- Sugimoto, C. R. (2012a). Are you my mentor? Identifying mentors and their roles in LIS doctoral education. *Journal of Education for Library and Information Science*, 53(1), 2-19.
- Sugimoto, C. R. (2012b). Initiation, cultivation, separation and redefinition: Application of Kram's mentoring framework to doctoral education in information and library science. *Journal of Education for Library and Information Science*, 53(2), 98-114.
- Sugimoto, C. R., Russell, T. G., & Grant, S. (2009). Library and information science doctoral education: The landscape from 1930-2007. *Journal of Education for Library and Information Science*, 50(3), 190-202.
- Thiele, J. (2013, September). The Digital Divide: A case study of the impact of low (or no) broadband in rural areas. Presented at the 2nd International Symposium on Information Management In the Changing World. Limerick, Ireland.
- Wallace, D. (Ed.). (2012). *ALISE Library and Information Science Education Statistical Report 2012.* Chicago: Association for Library and Information Science Education.
- Whitbeck, G. W. (1991a). Doctoral programs in library and information science: A descriptive study. *Journal of Education for Library and Information Science*, 31(4), 314-328.

Whitbeck, G. W. (1991b). Doctoral programs in library and information science: An update. *Journal of Education for Library and Information Science*, 32(3/4), 178-187.

Zimmer, M., & McCleer, A. (2014). The 2009 West Bend Community Memorial Library Controversy: Understanding the challenge, the reactions, and the aftermath. *Library Trends*, 62(4), 721-729.