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Research Article

Liaising in the 21st Century: The Shifting Role of the Education Librarian

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Abstract

This paper will examine the findings of a survey on the job roles and responsibilities of Education librarians (academic librarians with liaison responsibilities for the field of Education). Existing literature on Education librarianship has focused on particular facets of the job role, including the unique instructional needs of Education students and specific instruction and outreach initiatives. However, the literature lacks a comprehensive picture of the full spectrum of contemporary Education librarianship. This article provides a snapshot of the diverse educational backgrounds and varied responsibilities of Education librarians related to instruction and instructional design, reference, embedded librarianship, outreach, collaboration, and collection development.

Keywords: survey, information literacy, liaison librarianship, education librarianship, job duties

Introduction

As higher education continues to evolve, liaison librarians are being asked to take on roles in addition to the traditional responsibilities of collection management, reference, and instruction. While the changing roles of Education librarians may be reflective of larger trends in liaison librarianship, there are also unique considerations for librarians who work with Education students and faculty. [Note: in this paper Education is capitalized when referring to the field of Education, as in "Education librarians."]

Education programs include a wide range of learners, from preservice teachers to doctoral students, with needs that vary from learning about current children's literature to performing complex synthesis reviews. Supporting these varied student needs has become a considerable part of Education librarianship. Since preservice teachers are future educators who will need to integrate information literacy into their classrooms, helping them develop information literacy skills will also empower them to prepare their students to be lifelong researchers (Crouse & Kasbohm, 2004). However, as Duke and Ward (2009) noted in their metasynthesis, while many teacher educators recognize the value of information literacy instruction for teacher education students, not all preservice teachers are developing those information literacy skills through their teacher education programs.

While doctoral Education students may not need to teach information literacy in future classrooms, they can still benefit from the support of an Education librarian. Educators who go to graduate school to obtain a masters or doctorate in Education are often beginning graduate school after many years working in the field and may find the expectations for research and scholarship overwhelming, especially if they are also still working as educators. Therefore, services like data management and research support for this group are key.

In addition to serving a wide range of learners, Education librarians also face unique challenges when it comes to collection development. They are expected to complete typical collection development duties, such as selecting scholarly monographs and managing journal subscriptions, but may also be responsible for selecting curriculum materials and children's literature to support teacher education programs. Some

institutions may even have separate Curriculum Resource Centers (CRCs) or have these specialized materials integrated into their main library collection.

As members of the Education Committee of the Association of College & Research Libraries' Education and Behavioral Sciences section, the authors conducted a survey in 2019 to learn more about the educational background, job roles, and instructional practices of Education librarians (academic librarians with liaison responsibilities for the field of Education). This survey provided insight into how Education librarians offer and promote instruction, consultation, and other services to students and faculty. These findings provide a snapshot of the unique teaching practices of Education librarians, but also reflect the changing instructional roles of subject specialist librarians in general.

Literature Review

The literature regarding Education librarians tends to focus on the information literacy needs of preservice teachers and how Education librarians can best work with these students while collaborating with Education faculty. Scholarship has paid less attention to librarians' work with Education doctoral students, their role as embedded librarians, and their outreach to faculty and students.

Information Literacy Needs of Preservice Teachers

Substantial research has addressed information literacy (IL) skills and the needs of preservice teachers. Insufficient IL skills in teacher education students, as well as concerns about their ability to develop IL in the students they end up teaching, have been reported in studies in the US and in other countries; see Branch (2003); Brown and Turnbow (2009); Sadioğlu (2009); Lee et al. (2012); Stockham & Collins (2012); Kale (2016); Nierenberg (2017); Godbey and Dema (2017); and Godbey (2018). One study, however, did report preservice teachers in Ireland and the United Kingdom as having an overall solid understanding of IL (Bates et al., 2017).

Several of the aforementioned studies also evaluated preservice teachers' perceived IL skills and self-confidence compared to their measured levels of IL skills. Two studies in particular (Kale, 2016; Nierenberg, 2017) found that, overall, students overestimated their confidence in IL skills. This highlights the need for Education librarians to teach IL skills even if students feel they do not need such skill development. Brown and Turnbow (2009) suggested that mandatory instruction is one solution that could rectify this discrepancy.

Teacher education programs are a natural place for information literacy instruction, since the preservice teachers in these programs will one day be expected to help their students become information literate. As Birch et al. (2008) noted, the previous standards for teacher education set by the National Council of Accreditation for Teacher Education, in effect until 2016 (Council for the Accreditation of Educator Preparation, 2020), overlapped with the Association of College and Research Libraries' (ACRL) information literacy standards, also in effect until 2016 (Association of College & Research Libraries, 2000). The current ACRL Framework for Information Literacy, heavily reliant on metaliteracy, offers many possibilities for integration into teacher education programs (Association of College & Research Libraries, 2015). The Education

and Behavioral Sciences Section (EBSS) of the ACRL has also developed information literacy standards for teacher education (EBSS Instruction for Educators Committee, 2011).

Approaches to incorporating information literacy into teacher education include standalone information literacy modules (Earp, 2009); information literacy instruction integrated throughout teacher education programs (Ruppel et al., 2016; Emmons et al., 2011); collaboration between faculty and librarians grounded in ACRL IL standards (van Ingen & Aries, 2015); and an emphasis on how learning IL skills will help future teachers impart IL to their own students (Stockham & Collins, 2012). Some studies have also measured preservice student learning before and after information literacy instruction. These interventions varied in scope and substance, and included a single library workshop integrated into a course (Floyd et al., 2008); two course integrated library instruction workshops (Branch, 2003); formative assessment in teaching information evaluation (Seely et al., 2011); a five-part series which shifted the focus from IL skill development to how to incorporate and teach IL to future students (Lee et al., 2012); and a library's university-wide IL course (Nierenberg, 2017). The students across these studies significantly increased their IL knowledge and skills, and many had taken with them the understanding of how to incorporate IL into their teaching practice (Branch, 2003; Lee et al., 2012). With such a variety of approaches, it seems clear that no one type of intervention is best; Education librarians should consider the programs they work with and what methods would fit best for their needs.

Working with Doctoral Students

A number of case studies have been published on supporting Education doctoral students. A few collaborative and cooperative efforts have seen support provided at the beginning stages of doctoral study. Examples include a one-credit elective course for distance Education doctoral students, first in a fully online format, and later, face-to-face (Tuñón, 2002); and an Education librarian being embedded in a mandatory orientation course for an online doctoral program (Kumar & Edwards, 2013). Online tutorials, a virtual IL synchronous session, and a monitored help forum were provided in this embedded course (Kumar & Edwards, 2013). Other initiatives have seen librarians deliver scaffolded library instruction programs and support at various points of need in programs rather than at the beginning. Examples included a librarian supporting doctoral program faculty members (Grant & Berg, 2003); a four-part library training program for students in a distance program (Tuñón & Ramirez, 2010); and a collaboration between a research data librarian and an Education librarian to provide research data management instruction for doctoral students throughout their research process (Thielen & Hess, 2018).

Faculty-Librarian Collaboration

Education faculty members viewed collaboration with Education librarians as important when working with both preservice teachers and Education doctoral students. A survey of Education faculty, in states whose standards for teacher education included information literacy, found that nearly two-thirds of faculty collaborated with librarians to teach information literacy skills to preservice teachers (Kovalik et al., 2011). This faculty-librarian collaboration can take many forms. Purcell and Barrell (2014), while

describing the development of a course-integrated information literacy program, noted the value of true collaboration: faculty members and librarians co-teaching information literacy in a class session, not just the librarian teaching in place of the instructor. Other collaborations described in the literature included the creation of library audio and video podcasts to teach IL (Dobozy & Gross, 2010), the development of required IL workshops for preservice teachers (Laverty, 2017; Lipu, 2003), and faculty-librarian collaboration to integrate open educational resources and open pedagogy practices into teacher education (Van Allen & Katz, 2019).

Embedded Librarianship

The phrase "embedded librarianship" was first coined by Dewey (2004), who felt that "embedding oneself at as many venues as possible [would] ensure that library staff, collections, and services [were] more fully integrated into all aspects of campus life" (p. 5). The embedded librarian practices of Education librarians documented in the literature tend to fall within this definition. These have included case studies on physically embedded practices, in which a librarian holds office hours in the college or department (Jacobs, 2010; O'Toole et al., 2016), and online embedded practices where a librarian is included in a course's learning management system (McMillen & Fabbi, 2010; Edwards et al., 2010; Kumar & Edwards, 2013).

Some physically embedded librarians have seen an increase in demand for their services. Jacobs (2010) described how being physically embedded in a College of Education (COE) office full-time, due to library renovations, led to a permanent role as an embedded librarian in the department, as Education faculty and students realized the benefits of working with a librarian. An Education librarian who was embedded nearly full-time experienced a doubling of research consultation appointments in the first semester, increases in walk-up and email reference transactions, requests for library instruction and course/subject guide creation, and collaborative project work with faculty and graduate students (O'Toole et al., 2016).

Whether physical or online, embedded librarianship may expand beyond being readily available in student and faculty spaces to being woven into the fabric of the course and even helping to develop it. McMillen and Fabbi (2010) described a case study in which two Education librarians were embedded into a core Education course for undergraduate students, collaborating with the course instructor and an instructional designer to create pre- and post- assignments focused on developing IL concepts. In another example, Edwards et al. (2010) described being embedded in an online graduate educational technology course, where they included modules on IL topics, held synchronous consultation sessions, and monitored a discussion board. Similarly, Kumar and Edwards (2013) described embedding an Education librarian to provide IL support to online doctoral students. In an example of librarian influence on the creation of a course, Warner and Templeton (2010) reported on an Education librarian, an Education professor, and a teacher liaison who formed an instructional team to lead students in an experimental preservice Education course on neuroscience research and its implications for elementary classroom teaching.

Outreach to Students & Faculty

Another aspect of the liaison librarian role is outreach. This may include promoting and demonstrating the value of library services and collections, as well as building relationships and collaborations with disciplinary faculty and students. The literature on Education librarianship describes several different types of outreach initiatives. Having a physical presence in the building where the Education college, department, or program is located was described as an effective outreach strategy. This most often manifested in holding office hours in the Education building (Jacobs 2010; Schillie & Young 2000). Schillie and Young (2000) stated that outreach statistics at their institution increased during the period when office hours were held in the Education building, and they also saw an increase in the number of library instruction sessions.

In addition to outreach to Education faculty and students, the literature also provides examples of outreach and partnerships with local schools. Carlito (2009) described an outreach program with secondary schools that aimed to provide IL instruction to high school students as well as expose them to college-level research. Carlito suggested that outreach to high school students could become more common as decreasing funding for public schools and school libraries could cause teachers to look to public and academic libraries for IL and research skills instruction. Outreach to local teacher librarians or media specialists also occurs; Lee et al. (2012) described an outreach program developed by Education librarians in which teacher librarians in local schools provided an optional practicum for preservice teachers.

Collections

Many Education librarians are also responsible for developing a specialized collection of resources specific to teacher education. These collections, often referred to as Curriculum Resource Centers (CRC), house items such as state-adopted textbooks, children's literature, kits and manipulatives, toys, games, and puppets (Gelber & Uhl, 2013; Catalano, 2015). The exact composition for a CRC varies across institutions, as some include most of the above listed items, and others include less. Much of the literature surrounding CRCs focuses on the composition of these collections and the addition of technology, such as computer-based games or programs, 3D printers, or software (Shelley, Derden, and Gibson, 2018). Other literature focuses on collaborating with Education faculty for selection or deselection of materials, joint lessons, and user focused studies (Adams et al., 2016; Correll & Bornstein, 2018). Gelber and Uhl (2013) examined the fiscal management of CRCs, finding that their management was sometimes the sole responsibility of the library and other times it was shared with the Education department.

Methodology

Our work seeks to expand and enhance existing knowledge about how Education librarians work with faculty and students. Education librarians were surveyed to obtain a more holistic description of their job duties and responsibilities. In our survey (see appendix), we asked questions about general demographics, including length of experience as a librarian generally and as an Education librarian specifically, education level, and type of institution. We also asked respondents about their job responsibilities,

the types of instruction and reference services they provided, collection development responsibilities, outreach activities, and challenges. The survey questions were primarily multiple choice with a free-text "other" option provided. This survey was designed to provide a comprehensive picture of the role of the Education librarian.

The survey was distributed through several listservs of professional organizations, resulting in a convenience sample of librarians who subscribe to these listservs. These included the Education and Behavioral Sciences Section (EBSS-L), the University Libraries Section (ULS-L), Information Literacy Instruction Discussion List (ILI-L), College Libraries Section (COLLIB-L), and the Community and Two Year Libraries Section (CJC-L). The survey was also posted to the ACRL and EBSS sections of the American Library Association's ALA Connect discussion forum. In total, 211 participants responded to at least one survey question. Some questions were shown to participants only in response to answers to other questions, and questions could be skipped, so not every participant saw or answered every question. In the discussion below, percentages reported for each question are based on the number of respondents who answered that particular question, and percentages were rounded to the nearest whole number except for numbers less than 1%.

Results

Demographics

Many of the respondents had lengthy experience as librarians. Of 179 respondents, 60% (n=107) had worked as a librarian for more than 10 years, and an additional 16% (n=28) had worked as a librarian for 7-9 years (see Figure 1). The length of time worked specifically as an Education librarian was more varied. Of 179 respondents, 31% (n=56) had worked as an Education librarian for more than 10 years while 33% (n=56) had worked as an Education librarian for 3 years or fewer (see Figure 2).

Figure 1: ***Number of Years of Experience as a Librarian***

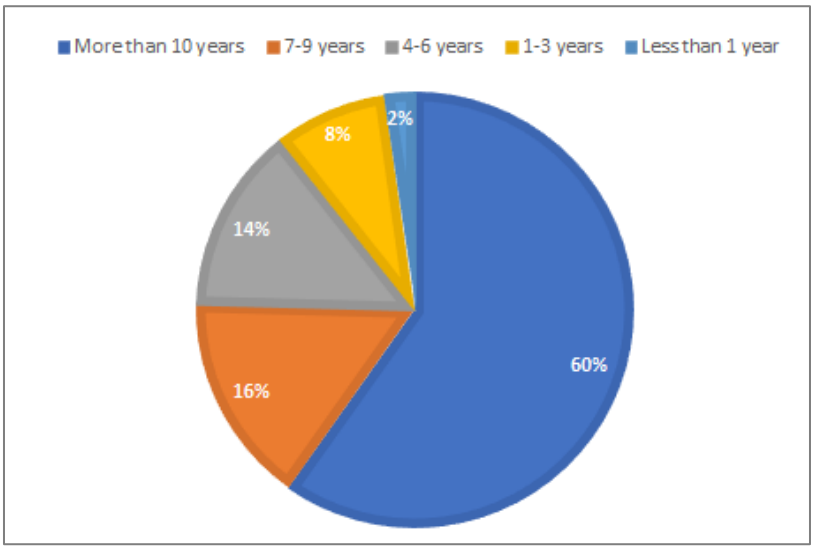
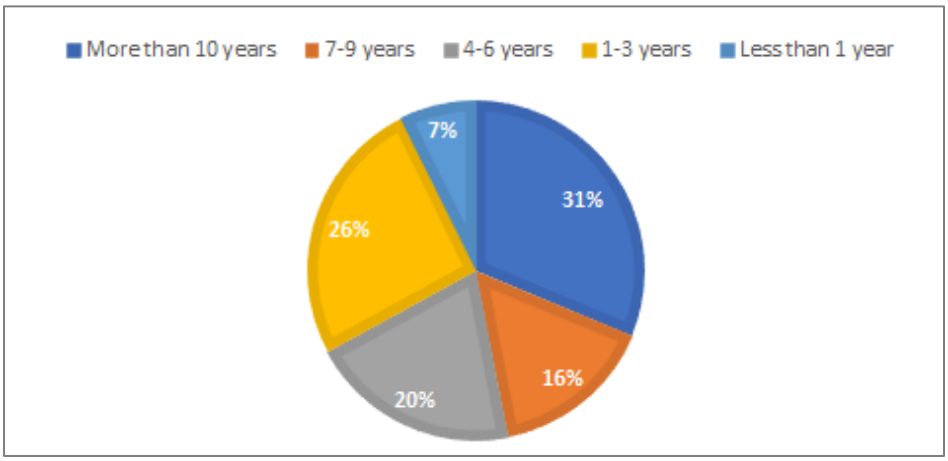
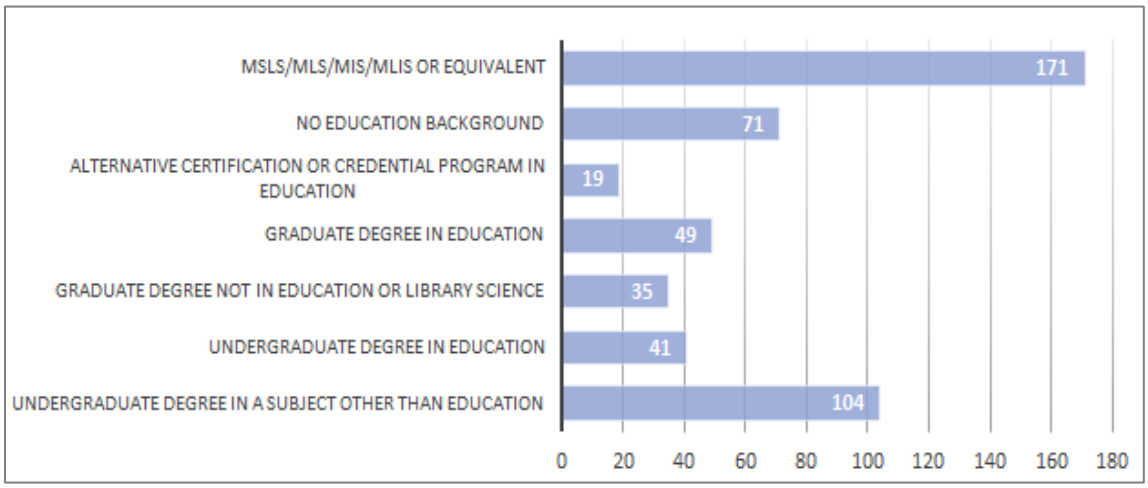


Figure 2: ***Number of Years of Experience as an Education Librarian***



Of 180 respondents, 95% (n=171) had an MLIS or equivalent. Respondents who had some sort of educational background in Education included 49 who had a graduate degree in Education, 41 with an undergraduate degree in Education, and 19 with an alternative certification or credential related to Education (see Figure 3). Respondents could select all that applied, so the total exceeds the number of respondents for this question.

Figure 3: ***Educational Background***



Next, respondents were asked about the characteristics of the institution where they worked as a librarian. The majority of 178 respondents worked at public institutions (69%, n=122), compared to 29% (n=52) in private institutions. Of 179 respondents, 72% (n=128) worked in doctoral-granting institutions, while 15% (n=27) worked at institutions where master's degrees were the highest degree granted (see Figure 4). Institution sizes varied, and a breakdown can be seen in Figure 5.

Figure 4: ***Highest Degree Granted at Work Institution***

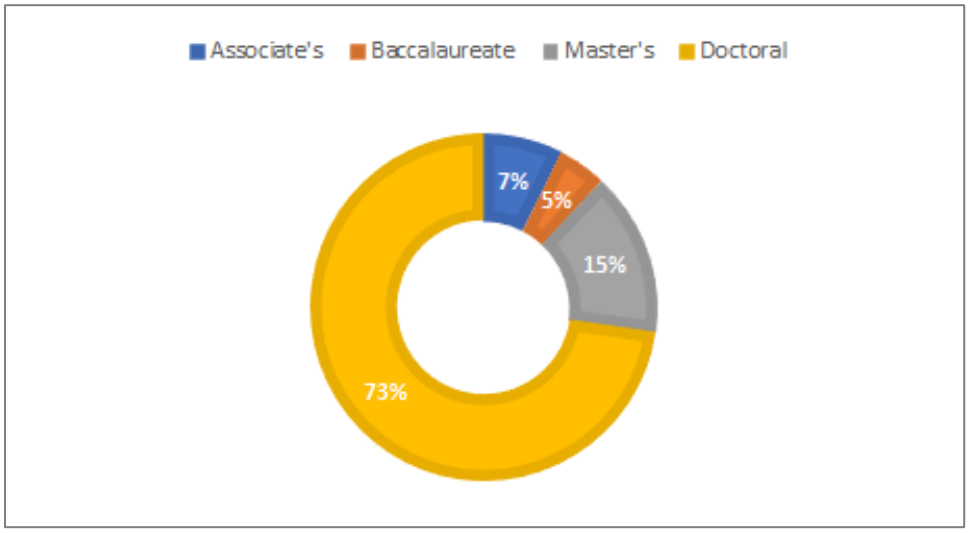
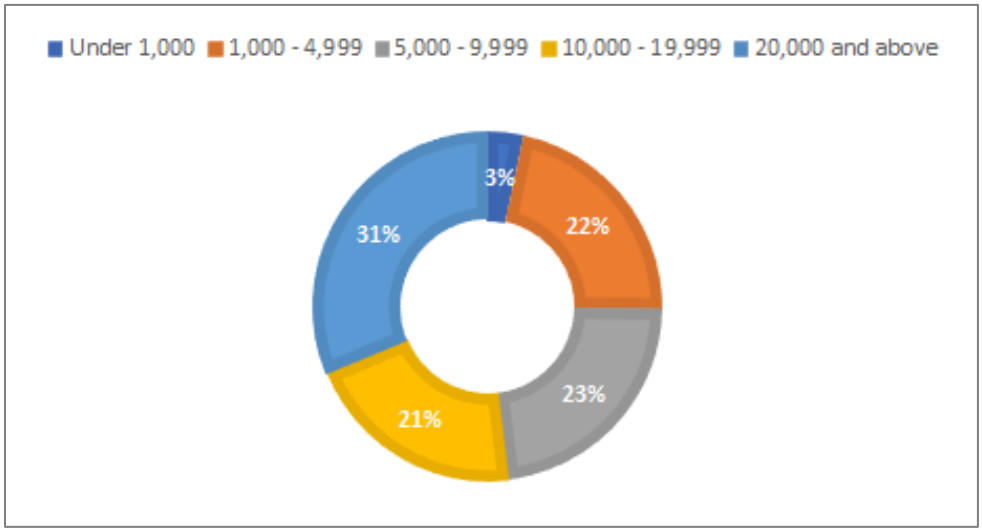


Figure 5: ***Population Size of Work Institution***



Of 178 respondents who answered the question about location, the vast majority (93%, n=167) were from the United States, but there were also 5 responses from Australia, 3 from Canada, and one each from Nigeria, Trinidad and Tobago, and Turkey.

Only 12% (n=26) of 211 respondents indicated that being an Education librarian was their sole responsibility. All others had additional liaison responsibilities and/or significant non-liaison responsibilities. Of 180 respondents who answered about their position's status, 42% (n=75) were tenure-track faculty, 26% (n=46) were non-tenure-track faculty, 31% (n=56) were professional staff, and 2% (n=3) described themselves as "other," such as administrators outside of rank.

The responses to these demographic questions show what perspectives are reflected in this study: predominantly more experienced librarians working at larger doctoral institutions in the United States who are juggling additional responsibilities in

addition to being Education librarians. Any trends that may be suggested by the responses cannot necessarily be extrapolated to librarians working in different institutional contexts or in different countries.

Reference and Instruction

Instruction and Instructional Materials

Survey respondents reported teaching in a variety of ways. Of 176 who responded to the question about modes of library instruction, nearly all (96%, n=169) reported teaching in person, and around half (52%, n=92) said they teach virtually via video conferencing. Half (51%, n=89) also provided asynchronous online instruction using modules, with about one-third (31%, n=54) using a flipped classroom model. (Note: this survey was conducted prior to the widespread transition to online learning due to COVID-19). Almost all (95%, n=168) stated that they taught one-shot, course-integrated sessions; 85% (n=149) taught library orientation sessions; and 58% (n=102) taught non-course integrated workshops (see Table 1).

Table 1: ***Types of Instruction Offered***

Instruction Type	**% of responses, n=176**
One-shot course integrated library instruction sessions	95%
Library orientation sessions	85%
Workshops	58%
Two or more library instruction sessions in a course during the same term	54%
A scaffolded sequence of library instruction sessions throughout the curriculum	22%
Credit-bearing course	14%
Other (Please Specify)	3%

In these instruction sessions, as well as in consultations, respondents reported teaching a wide range of topics, some traditionally associated with library instruction and others that might be considered more contemporary (see Table 2). Because consultation topics are often similar to those that librarians teach in the classroom, these were grouped together. Almost all (99%, n=174) stated that they taught about using library resources for research assignments, and 88% (n=155) taught information evaluation. Overall, the topics reported by respondents represented a broad range of knowledge and skills needed by the Education librarian. While some, such as using library resources, information evaluation, and citation managers, could be considered common information literacy instruction topics, others, such as systematic reviews, data literacy, scholarly communication, and using curriculum materials collections, represent more specialized areas related to a specific population. For instance, doctoral students would be more likely to need instruction on systematic reviews than would preservice teachers.

Table 2: ***Library Instruction and Consultation Topics***

Topics	**% of responses, n=176**
Using library resources for research assignments	99%
Evaluating information	88%
Citation management tools (i.e. Zotero, Mendeley, etc.)	68%
Using a specialized collection in the library (e.g. curriculum materials)	60%
Scholarly communication and the academic publication process (publishing and open access)	40%
Systematic reviews	28%
Data literacy	22%
Technology	3%
Citations (not citation management)	2%
Research process	2%
Children's literature	2%
Research methods	1%
Teaching with the library	1%
Literature reviews	1%
Theses	1%
Being a scholar	1%
Test preparation	0.50%
Censorship	0.50%
Faculty support	0.50%

Most survey respondents reported using learning tools to enhance learning in library instruction. Of 172 respondents, the vast majority (80%, n=137) used handouts or worksheets. Other popular learning aids employed included dry erase boards for student activities (48%, n=83); digital collaboration tools such as Google Docs and Padlet (43%, n=74); class response systems, such as Poll Everywhere and Kahoot! (40%, n=69); and physical materials for student activities (35%, n=61). Less than a quarter of respondents reported using puzzles or games, whether virtually or in-person (17%, n=30); LibGuides (2%, n=3); and other types of materials (4%, n=7). A few (7%, n=12) used no tools at all.

Reference Services

The vast majority of survey respondents reported performing research consultations in some form. Almost all 174 respondents reported providing research consultations in-person (97%, n=168) and via email (91%, n=159). About three-quarters (74%, n=129) conducted research consultations via virtual services including video conferencing or an instant messaging chat service (see Table 3).

Table 3: ***Format of Delivery of Reference Services***

Reference Services	**% of responses, n=174**
In person	97%
Email	91%
Phone	80%
Virtually (video conferencing or IM chat)	74%
Other (Please specify)	5%

Embedded Library Services

When it came to embedded library services, of 173 respondents, 25% (n=43) reported providing embedded services, with 79% (n=34) of that subset indicating that they provide a physically embedded service of some form. Out of this small group, nearly two-thirds stated that they regularly attended a class to offer research support (65%, n=22), over half held office hours in the Education building (53%, n=18), and over a third co-taught a class with an Education faculty member (38%, n=13).

A small group (34) also reported providing a virtual embedded library service. Nearly two-thirds of this group monitored and contributed to class discussion boards (62%, n=21); while over half established and maintained a discussion board for research assistance (56%, n=19), and nearly a quarter (24%, n=8) conducted an assessment in a virtual environment, such as a discussion post task.

Digital Learning Objects

The vast majority (98%, n=168) of 172 respondents indicated that they created digital learning objects (DLOs) for their liaison area. Out of this large group, most created library guides, either LibGuides or guides on another platform (94%, n=162). The next most common DLOs created were screenshots or on-the-fly videos (55%, n=94) and non-interactive scripted video tutorials (45%, n=78). A little over a third of respondents indicated embedding presentations into a LibGuide or learning management system, at 34% (n=59) (see Table 4).

The DLOs that respondents specified under “Other” included the following: PDF handouts, live webinar recordings, HyperDocs, interactive videos, “how to” documents using screen captures, and simple bookmarks. These are all creative yet relatively simple ways that liaison librarians can provide further research support for Education students, except for HyperDocs and interactive videos which may require further skill development.

Table 4: ***Digital Learning Objects Created by Education Librarians***

Digital Learning Objects	% of responses, n=172
Library Guides, eg. LibGuides or another platform	94%
Screenshots or on-the-fly videos	55%
Non-interactive scripted video tutorials	45%
Presentations embedded into LibGuide or LMS, eg. PowerPoint, Google Slides, etc.	34%
Infographics	18%
Self-paced modules created within the learning management system	17%
Interactive tutorials (made with software like Storyline or Captivate)	15%
Other (Please Specify)	3%
Podcasts	2%
None	2%

Of the 168 respondents who reported creating DLOs, 23% (n=38) created one type of DLO while 25% (n=42) created two types of DLOs. Approximately 46% (n=77) of respondents reported creating three to five different types of DLOs. Only 6% (n=11) of respondents said they created six or more types of DLOs.

Outreach

Of 171 respondents who answered a question about outreach to faculty, the majority (85%, n=145) indicated that they provided informal in-person outreach in settings such as departmental meetings and relevant presentations. About 58% (n=100) indicated that they were formally invited to present in department meetings. In addition to providing in-person outreach, 83% (n=142) also indicated that they used email reminders to promote their services to faculty. Keeping in mind that respondents could select multiple options, the data suggests that while there are some methods that appear to be widely used, some librarians are going further and using multiple strategies to reach out to Education faculty in a tailored way. Further details on other methods of outreach to faculty employed by respondents can be found in Table 5.

In response to a question about student outreach, only 1% (n=2) of 170 respondents said that they did not promote their services to students. The other 99% (n=168) of respondents indicated that they participated in direct outreach to Education students, although the ways they did so differed from their methods with Education faculty. The vast majority (80%, n=136) of respondents created Education research guides (such as LibGuides) as a form of outreach to students. These guides often prominently feature the contact information of the liaison librarian. Instruction sessions were also an outreach opportunity, as 73% (n=124) reported sharing announcements or reminders about liaison librarian services during these sessions. Other types of outreach to students are listed in Table 6.

Table 5: ***Methods of Outreach to Faculty***

Outreach Methods	**% of responses, n=171**
In person on an informal basis, at departmental meetings, presentations, etc.	85%
E-mail reminders	83%
In a general sense -- advertise services as part of a broader Libraries marketing campaigns, aimed at all faculty	68%
Presentation in department meetings	58%
E-newsletter created or tailored by you, to your department/college	28%
Social media account used for professional purposes	24%
Print materials created by you, eg. flyers, newsletters, delivered to their campus mailbox	20%
Other (Please Specify)	1%
Curriculum mapping	1%
Digital signage	1%
Faculty aimed courses or tutorials	1%
None	0.6%

Table 6: ***Methods of Outreach to Students***

Outreach Methods	**% of responses, n=170**
Creation of Education-specific library guides (e.g. LibGuides)	80%
Announcements/reminders of services at library instruction sessions	73%
In a general sense -- Advertise services as part of broader Libraries marketing campaigns, aimed at all students	66%
Tabling at your institutions orientation for incoming/potential Education students	38%
Social media account used for professional purposes	27%
Digital marketing materials emailed to all or relevant student groups	24%
Print marketing materials in Education building	24%
Announcements/reminders of services in students course LMS	22%
Via faculty	4%
Other (Please Specify)	2%
None	1%

Collaboration

In addition to building relationships with Education faculty and students through outreach efforts, Education liaison librarians indicated that they developed collaborations with faculty beyond their typical instruction, reference, and collection development responsibilities. The most common type of collaboration reported was planning and/or holding an event with an Education faculty member (32%, n=54 of 170). Collaboration also took the form of scholarship, with 28% (n=48) of respondents indicating that they had collaborated on a conference presentation with an Education faculty member while 23% (n=39) reported collaborating on a publication. Additionally, 22% (n=38) of respondents said that they had collaborated on a grant project with an Education faculty member. Less frequent forms of collaboration included assisting with finding and creating OERs (2%, n=3), creating training resources (2%, n=4), and assisting in developing curriculum for new classes or programs (2%, n=4). About 39% (n=66) of respondents indicated that they did not work on any collaborative projects with faculty members beyond their typical liaison responsibilities.

Collections

A common responsibility among liaison librarians was to develop the collection in their subject area. Of 169 who answered this question, 53% (n=90) were responsible for collection development including curriculum materials, 36% (n=61) indicated collection responsibilities without curriculum materials, and 11% (n=18) had no collection development responsibilities. Practices were varied in some areas of collection development, but commonalities were found in the types of materials. In regards to children's literature, 91% (n=152) of 167 respondents collected children's literature, with 32% (n=53) locating it within the curriculum collection, 45% (n=75) in its own collection, and 14% (n=24) integrated with the main collection. Only 9% (n=15) did not collect children's literature.

There was also some variation in the physical location of curriculum resources and what was collected. About half (n=83) of 171 respondents had a curriculum collection that was physically separated from the main collection but within the library, 20% (n=34) housed it outside of the library, and 32% (n=54) did not have a separate curriculum materials collection. Of 165 respondents, 59% (n=98) indicated that they collected K-12 textbooks, both student and teacher editions; 58% (n=95) collected supplemental materials such as workbooks and tests; 44% (n=73) collected audiovisual materials; 45% (n=75) collected kits; and 34% (n=56) collected games/storytelling props. Finally, 27% (n=44) indicated that their library did not collect curriculum materials. Participants could select multiple responses, so percentages add up to more than 100%.

Another part of collection development is the management and curation of electronic resources. When asked to select their top three databases for Education-related research, respondents most often chose ERIC (85%, n=141), PsycNET/PsycINFO (33%, n=55), and Education Source (31%, n=51). See Table 7 for a full listing of databases reported. (Because participants selected three options, numbers add up to more than 100%.)

Table 7: ***Top Three Databases Promoted for Education-Related Research***

Databases	% of responses, n=165
ERIC	85%
PsycNET / PsycINFO	33%
Education Source	31%
Education Research Complete	25%
Education Full Text	22%
Proquest Education	21%
Other (Please Specify)	18%
Proquest Dissertations and Theses Global	13%
Professional Development Collection	13%
Children's Literature Comprehensive	12%
Psychology and Behavioral Sciences	5%
Child Development and Adolescent Studies	4%
Mental Measurements Yearbook	2%
Primary Search	2%

Challenges

Respondents were asked what they saw as being the top three challenges in their current position as an Education librarian. The most common response by far (78% of 160 respondents for this question) was that the librarian had too many responsibilities and not enough time. This was followed by a lack of faculty buy-in (49%, n=79), internal bureaucracy (33%, n=52), lack of collections budget (31%, n=49) and external bureaucracy (23%, n=36).

Open-ended comments provided further insight into what respondents perceived as the main challenges associated with their position. In relation to having too many responsibilities, respondents mentioned having too many constituents to serve on their own, a lack of staffing, and the elimination of positions to support Education faculty and students. This perception was illustrated by one respondent who noted, "when the other Education Librarian left, that position was not replaced, and the Curriculum Materials Center librarian position was deleted...I am doing two jobs." This respondent also said that "the excuse for doubling up [their] job [was] the falling enrollment in Education," and that they were also required to provide instruction for other departments, such as English.

Converging between lack of faculty buy-in and lack of time, several respondents mentioned the difficulty of fitting information literacy instruction into already tight classroom schedules due to factors such as extensive accreditation requirements or short-

term lengths. One respondent noted that their Education department was "focused on the passing of the state teaching certification exams" and that Education faculty were aware of library instruction but were not interested. Another respondent suggested that while Education students used the library's juvenile book collection, they "do not seem to have many research projects that require using research resources." These responses demonstrate that some Education librarians found it difficult to get class time with Education students and to build instructional partnerships with faculty. One respondent noted that "department faculty feel like they can promote information literacy as well or better than [librarians] can", and that "[they] have had to work very hard to establish relationships and show[…] that their allotted library class time is well spent."

Several respondents also acknowledged that Education faculty are often coping with too many responsibilities and a lack of time themselves. One respondent noted that many Education faculty at their institution are adjuncts or professors of practice who are often short on time, while another respondent noted that "most faculty are overworked, just as we are."

Despite some of these challenges, respondents also emphasized the positive relationships they had with Education programs and described areas they saw as opportunities for professional growth. One respondent noted that while many of their Education librarian peers focus on supporting their teacher education programs, they would like a professional space where they could connect with other librarians working primarily with Education doctoral students. Other areas where respondents wanted to develop their professional skills included the areas of scholarly communication and open educational resources (OER).

Discussion/Conclusion

There is a plethora of case studies on Education librarians' library instruction, collaboration, and initiatives, but not a synthesis of what Education librarians are doing more broadly to meet the information, knowledge, and research needs of their constituents. Overall, this study has provided not only a snapshot, but a comprehensive picture of the job responsibilities of librarians who support Education. Responsibilities have expanded from the traditional liaison librarian responsibilities of providing research services, instruction, and collection development. This expansion includes being embedded in physical and online spaces, creating digital learning objects to complement instruction, and marketing and outreach in traditional and online formats. As learning and creative technologies develop and students and faculty spend more time online, liaison librarian relationships are likely to continue evolving.

The survey results also show what Education librarians are not doing. One of the most interesting things learned is that, while the literature review provided case studies of librarians providing embedded services, survey results showed that this is not the practice of most Education librarians. These case studies were from several years ago, so it could be possible that embedded services have been experimented with but not sustained due to the work involved to maintain them. It also could be due to a lack of buy-in from teaching faculty – the librarians surveyed may have only approached reluctant faculty. Both lack of faculty buy-in and lack of time were reported as top challenges for Education librarians in the survey; however, further research is needed to investigate the reasons why this practice has not been widely adopted.

The varied job duties described above demonstrate the very specialized skill set Education librarians needs to work effectively within their liaison areas. It is unclear how librarians are developing the skills needed to be effective Education librarians: in library school? From a previous education career? On the job? Through professional development? Future research could investigate how Education librarians learn about these topics and what sorts of training they need to be successful liaisons. Almost all respondents reported doing some kind of instruction, yet other studies have shown that librarians are not likely to learn pedagogy while in library school (Saunders, 2015; Westbrock & Fabian, 2010). While 49 respondents did report having a graduate degree in Education, it would be interesting to discover if they held this degree before obtaining a job as an Education librarian or if they pursued it after becoming an Education librarian.

Further research could also look into Education librarians' roles in creating digital learning objects (DLOs) and could investigate Education librarians' hesitance in using educational technology learning tools and gamification in library instruction. Of the respondents who created DLOs, nearly half (48%) reported creating only one or two different types of DLOs. While this means that the other half are employing a wider range of digital learning strategies, it suggests that this could be an area of growth for some Education librarians. Teacher education students are learning about the use of educational technologies and gamification to enhance teaching and learning, putting Education librarians in a prime position to model such tools. However, our study shows that only about half are, and the other half are choosing to stay with traditional learning aids such as handouts and worksheets. Is it because of a lack of technical skills needed for creation of certain DLO types, such as video tutorials, online modules, and digital learning tools; a lack of interest; or simply a perceived lack of time? When asked about challenges, the majority of respondents cited too many responsibilities and not enough time, so a lack of time could be a key factor, though more research is needed.

A potential limitation of this study was the sample size. With over 4,000 accredited degree-granting postsecondary institutions in the US alone (Moody, 2019), there are presumably many librarians who support Education but did not take the survey. As mentioned in the Methodology, the survey was mainly distributed through several listservs of ACRL professional organizations and on select groups in ALA Connect. There are many research surveys distributed via these channels and many librarians could be experiencing "survey burnout." The survey was also shared directly with connections in other countries, but it was not distributed widely in these countries. Further research could also look into Education librarians' roles in other countries to explore the commonalities and differences to enable us to learn from each other on a global level.

When this survey was launched in the summer of 2019, no one could have foreseen the dramatic changes to higher education wrought by COVID-19 and the massive transition to remote learning and work. In some respects, our survey results act almost as a time capsule for what librarianship looked like before the seismic shift that began in March 2020. While the long-term effects of COVID-19 on higher education remain to be seen, it would be of interest to undertake further research to see if virtual research consultation services, virtual instruction, and the creation of DLOs, all of which dramatically increased during the COVID-19 pandemic, continue to remain at higher rates after the pandemic. Additional research could also be conducted to learn how

COVID-19 impacted the delivery of any existing online services and how these services changed after the pandemic.

Despite its limitations, this study effectively illustrates what today's Education librarian is doing to support and collaborate with faculty, students, staff, and others. Today's Education librarian is working on all kinds of endeavors: making many types of digital learning objects, collaborating with faculty on a range of projects, embedding themselves within courses and departments, and using marketing tools and doing outreach to promote such services. While not every Education librarian uses all these approaches, these endeavors represent both an expansion of activities traditionally associated with liaison librarianship and new skills and responsibilities required to reach Education students effectively.

It is not surprising, therefore, that respondents' top challenge was too many responsibilities and not enough time. It is clear that the Education librarians who responded cared about their constituents, given the work that they did to support them. But with so many responsibilities, many seemed at potential risk of burnout from the profession. Wood et al. (2020) asserted that academic librarians, in general, are "in a state of burnout" (p. 9). Their survey indicated that 70% of US academic librarians are sometimes, often, or always burned out; and almost 50% are experiencing work-related burnout (Wood et al., 2020). Although Colon-Aguirre and Webb (2020) did not find evidence of overall burnout within their sample population of academic librarians in the Southeast US, they did find higher levels of job exhaustion and cynicism, which are contributors to overall burnout in younger librarians and those who were unmarried or without children. This potential risk of burnout and the factors that may contribute to it could also be a future research topic.

The answers and perspectives of Education librarians as reported in the survey could inspire other librarians to explore creative ways to support their constituents. The results also open the door to more research in the specific areas of library instruction, research support, and collaboration, and provide a starting point for conversations about prioritizing and balancing workload.

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Appendix – Survey Questions

Demographics

1. What portion of your time is related to supporting Education (For this survey, Education refers to the discipline of education, which may include a college, school, or department(s) that offer programs such as education studies, teacher education, educational leadership, etc.)?
    a) Education is my only liaison responsibility
    b) I have liaison responsibilities for Education and other programs/departments *(if selected, go to question 1.1)*
    c) Education is my only liaison responsibility, but I have other significant non-liaison responsibilities.
    d) I have liaison responsibilities for Education and other programs/departments as well as other significant non-liaison responsibilities *(if selected, go to question 1.1)*
    e) It is not part of my job to support students or faculty in Education *(if selected, end survey)*

    1.1. What are your other liaison areas?

2. What country do you work in?
    a) United States of America
    b) Canada
    c) Other (Please Specify)

3. How long have you worked as a librarian?
    a) < 1 year
    b) 1 - 3 years
    c) 4 - 6 years
    d) 7-9 years
    e) 10+ years

4. How long have you worked as an Education librarian?
    a) < 1 year
    b) 1 - 3 years
    c) 4 - 6 years
    d) 7-9 years
    e) 10+ years

5. What is your educational background? Select all that apply.
    a) Undergraduate degree in a subject other than Education
    b) Undergraduate degree in Education
    c) MSLS/MLS/MIS/MLIS or equivalent
    d) Graduate degree in Education
    e) Graduate degree not in Education or library science
    f) Alternative certification or credential program in education

6. What is your position status?
    a) Faculty, Tenure Track
    b) Faculty, Non-Tenure Track
    c) Professional Staff
    d) Other (Please Specify)

7. What is your position load?
    a) Full-time
    b) Part-time

8. Does your institution provide financial support for your professional development?
    a) Yes - A fixed amount to be used at my discretion
    b) Yes - Only if presenting
    c) Yes - On a case by case basis
    d) No *(if selected, skip to question 9)*

    8.1. What is the maximum annual amount your institution provides for your professional development?
        a) $0-500
        b) $501-1000
        c) $1001-1500
        d) $1501-2000
        e) $2001-2500
        f) $2501-3000
        g) 3001+
        h) No specified limit
        i) Approved based on number of conferences or other criteria rather than specific amount

9. What type of position responsibilities do you have? (Select all that apply)
    a) Reference/Instruction
    b) Cataloging/Metadata
    c) Collection Development/Acquisitions
    d) Digital Scholarship/Scholarly Communication
    e) Administration
    f) Systems/Library Technology
    g) Data Services
    h) Access Services
    i) Other (Please Specify)

10. What types of Education constituents do you work with? (Select all that apply)
    a) Undergraduates
    b) Master's students
    c) Doctorate students
    d) Distance students

e) Faculty/Staff (research consultations outside of their role as instructors)
f) Other (Please Specify)

11. How many librarians at your institution support Education?
    a) I am the only librarian with primary responsibilities for Education
    b) I share responsibilities with other librarians

12. Is your institution:
    a) Public
    b) Private
    c) For-profit
    d) Other (Please Specify)

13. What is the highest degree granted at your institution?
    a) Associate's
    b) Baccalaureate
    c) Master's
    d) Doctoral
    e) Other (Please Specify)

14. What is the enrollment size at your institution?
    a) Under 1,000
    b) 1,000 - 4,999
    c) 5,000 - 9,999
    d) 10,000 - 19,999
    e) 20,000 and above

Instruction

15. In what modes do you provide library instruction to Education students and faculty? (Select all that apply)
    a) Live - In person
    b) Live - Virtually (video conferencing)
    c) Flipped Classroom, i.e. students complete some work before a class session and then attend a live session
    d) Online modules - no live component
    e) Embedded
    f) Other (Please Specify)

16. What types of instruction do you provide to Education students and faculty? (Select all that apply)
    a) Library orientation sessions
    b) One-shot course integrated library instruction sessions
    c) Two or more library instruction sessions in a course during the same term
    d) Credit-bearing course
    e) Workshops

f) A scaffolded sequence of library instruction sessions throughout the curriculum
g) Other (Please Specify)

17. What types of topics do you provide instruction or consultations on? (Select all that apply)
    a) Using library resources for research assignments
    b) Evaluating information
    c) Citation management tools (i.e. Zotero, Mendeley, etc.)
    d) Systematic reviews
    e) Data literacy
    f) Scholarly communication and the academic publication process (publishing and open access)
    g) Using a specialized collection in the library (e.g. curriculum materials)
    h) Other (Please Specify)

Reference and Research Consult Services

18. In what modes do you provide research consultations to Education students and faculty? (Select all that apply)
    a) In person
    b) Virtually (video conferencing or IM chat)
    c) Phone
    d) Email
    e) Other (Please Specify)

Embedded Library Services

19. Do you currently provide embedded library services to Education students and faculty? For what we consider "Embedded library service" we use what Drewes & Hoffman (2010, p. 76) put forward, that "embedded librarian programs often locate librarians involved in the spaces of their users and colleagues, either physically, or through technology, in order to become a part of their users' culture."
    a) Yes – actively, like in-department office hours or monitoring class message boards
    b) Yes – passively, like LibGuides embedded into the LMS
    c) No *(if selected, skip to question 20)*

    19.1. What embedded library services do you provide?
        a) Physical presence only, e.g. office hours in the Education building, or a regular class participant ***(****if selected, go to question 19.1.1 then skip to question 20)*
        b) Virtual presence only, e.g. embedded into LMS *(if selected, go to question 19.1.2, then skip to question 20)*
        c) Hybrid presence *(if selected, go to question 19.1.1 and 19.1.2)*

    19.1.1. What physical embedded services do you provide? (Select all that apply)

a) Office hours in the Education building
b) Regularly attending a class to offer research support
c) Co-teaching a class with an Education faculty member
d) Other (Please Specify)

19.1.2. What embedded virtual services do you provide? (Select all that apply)
a) Monitor and contribute to class discussion boards
b) Establish and maintain a discussion board for research assistance
c) Maintain online chat hours
d) Run an assessment, eg. a discussion post task
e) Other (Please Specify)

Learning Objects

20. What digital learning objects do you create for your Education students? (Select all that apply)
    a) Library Guides, eg. LibGuides or another platform
    b) Infographics
    c) Podcasts
    d) Screenshots or on-the-fly videos
    e) Non-interactive scripted video tutorials
    f) Presentations embedded into LibGuide or LMS, eg. PowerPoint, Google Slides, etc.
    g) Self-paced modules created within the learning management system
    h) Interactive tutorials (made with software like Storyline or Captivate)
    i) Other (Please Specify)
    j) None

21. What digital learning objects do you use with your Education students that were created by others? (Select all that apply)
    a) Library Guides, eg. LibGuides or another platform
    b) Infographics
    c) Podcasts
    d) Screenshots or on-the-fly videos
    e) Non-interactive scripted video tutorials
    f) Presentations embedded into LibGuide or LMS, eg. PowerPoint, Google Slides, etc.
    g) Self-paced modules created within the learning management system
    h) Interactive tutorials (made with software like Storyline or Captivate)
    i) Other (Please Specify)
    j) None

22. What types of learning tools do you use during instruction to Education students? (Select all that apply)
    a) Handouts or worksheets
    b) Dry erase boards for student activities

c) Physical materials for student activities (e.g. a book-based activity)
d) Puzzles or games (e.g. virtual or in-person)
e) Digital collaboration tools (e.g. Google docs, Padlet)
f) Digital class response systems, (e.g. Poll Everywhere, Socrative, Kahoot!)
g) None
h) Other (Please Specify)

Outreach and Collaboration

23. How do you promote your services/presence to Education faculty? (Select all that apply)
    a) Presentation in department meetings
    b) E-mail reminders
    c) Social media account used for professional purposes
    d) E-newsletter created or tailored by you, to your department/college
    e) Print materials created by you, eg. flyers, newsletters, delivered to their campus mailbox
    f) In person on an informal basis, at departmental meetings, presentations, etc.
    g) In a general sense -- advertise services as part of a broader Libraries' marketing campaigns, aimed at all faculty
    h) Other (Please Specify)
    i) None

24. How do you promote your services to Education students? (Select all that apply)
    a) Tabling at your institution's orientation for incoming/potential Education students
    b) Social media account used for professional purposes
    c) Digital marketing materials emailed to all or relevant student groups
    d) Print marketing materials in Education building
    e) Announcements/reminders of services at library instruction sessions
    f) Announcements/reminders of services in students' course LMS
    g) Creation of Education-specific library guides (e.g. LibGuides)
    h) In a general sense -- Advertise services as part of broader Libraries' marketing campaigns, aimed at all students

25. On what kinds of projects have you partnered with Education faculty/staff (not employed by the library)? (Select all that apply)
    a) Publication
    b) Conference presentation
    c) Event
    d) Grant project
    e) Other (Please Specify)
    f) None

Collection Development

26. Are you responsible for collection development for Education?
    a) Yes, including curriculum materials
    b) Yes, not including curriculum materials
    c) No *(if selected, skip to question 32)*

27. Does your institution have a curriculum materials collection that is physically separate from the main collection?
    a) Yes, located in the library
    b) Yes, located in Education building or other location
    c) No *(if selected, skip to question 28)*
    d) Other (Please Specify)

    27.1. Is there a service point specifically associated with your curriculum collection (i.e. do you have a help desk or a staff person at the collection)?
        a) Yes, primarily staffed by a librarian
        b) Yes, primarily staffed by a library employee (not a librarian)
        c) Yes, primarily staffed by someone outside the library
        d) No

28. Does your library collect children's literature?
    a) Yes, and it is part of the curriculum collection
    b) Yes, but it is its own collection
    c) Yes, but it is integrated into the main collection
    d) No

29. What type of curriculum materials (if any) does your library collect? (Select all that apply)
    a) K-12 textbooks (teacher and/or student editions)
    b) Supplemental materials (workbooks, tests, etc.)
    c) Audiovisual materials
    d) Kits
    e) Games/storytelling props
    f) Other (Please specify)
    g) My library does not collect K-12 curriculum materials *(if selected, skip to question 30)*

    29.1. In what formats do you collect curriculum materials?
        a) Primarily in print
        b) Primarily online
        c) Both print and online
        d) Other (Please Specify)

30. What are the top three databases that you promote for Education-related research? (Select up to three)

a) Child Development and Adolescent Studies
b) Children's Literature Comprehensive
c) Education Full Text
d) Education Research Complete
e) Education Source
f) ERIC
g) Mental Measurements Yearbook
h) Primary Search
i) Proquest Dissertations and Theses Global
j) Professional Development Collection
k) Proquest Education
l) PsycNET / PsycINFO
m) Psychology and Behavioral Sciences
n) Other (Please Specify)

31. Do you collect physical or online test preparation materials for Education licensure exams?
    a) Yes, physical only
    b) Yes, online only
    c) Yes, both physical and online
    d) No

Challenges

32. What are your top three challenges in your current Education Librarian role hindering your ability to provide new or enhanced services and resources, if any? (Select up to three)
    a) Most faculty non-responsive; lack of faculty buy-in
    b) Lack of financial support for professional development
    c) Lack of financial support for collection budget
    d) Lack of financial support for marketing/outreach
    e) Internal bureaucracy, i.e. within your library
    f) External, institutional bureaucracy, i.e. other departments or staff outside of the library
    g) Too many responsibilities; not enough time
    h) Other (Please Specify)

33. (Optional) Would you like to provide any further comments related to anything in this survey?

34. (Optional) Please enter your email address if you'd like to be considered for an incentive.