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School Librarians as Ambassadors of Inclusive Information Access for Students with Disabilities

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Abstract

Many scholarly studies investigating school library services provided to students with special needs primarily address aspects of collaboration with special education (SPED) teachers in an immersed school environment. Scarcely studied are ways that school library programs (SLPs) empower students in schools serving only students with a specific disability (vision impaired, autism, etc.), the challenges SLPs face in these schools, nor the specialized training made available to these librarians to ensure the delivery of efficient services. We formulated this study to determine: 1) the types of facilities, services, and resources SLPs provide to students with specific disabilities in these SPED schools; 2) the technologies that facilitate physical and intellectual access for these students within the school library; 3) the extent to which federal disability guidelines are implemented in the design and delivery of these SLPs; and 4) the specialized training that enables school librarians to better support students with special needs. Our findings suggest that, if adequate pre-service and in-service training is provided and pertinent support is received from outside and inside of school, school librarians, as ambassadors of accessibility, can and do play a highly influential role in empowering students and staff in SPED schools.

Introduction

> "…my experience…working in public schools as a librarian is that everything is meant for "average" child…I have never met an "average" child, but everything is meant for "average" child" —Dana, School B

Aspiring to provide access to high-quality resources that enrich and empower those who seek to expand their knowledge, librarians have often designed and focused services and resources for the average user, assuming that, as a result, the greatest number of users will benefit. However, deeper reflection on the characteristics and identities of the "average" user continue to puzzle all

library stakeholders. In recent years, librarians and other stakeholders have become increasingly aware of the importance of providing library access to all users inclusively; this consideration will continue to grow in importance in the future (Hawthorne, Denge, and Coombs 1997; Gibson 2006; Jaeger et al. 2011; Mates 2004).

More than 54 million people in the United States, or 18.7 percent of the nation's population, have a disability (Jaeger 2012; Lazar and Jaeger 2011). People being diagnosed with one or more learning disabilities are increasing; it is estimated that 1.5 million people in the U.S. are affected by autism, and one in 110 children is diagnosed with this disability (Autism Speaks 2012). People with special needs vary across a wide range of physical, learning, and emotional disabilities. While some of these disabilities may be grouped under a common label or bear similar characteristics, the specific nature of a physical or cognitive disability may fall anywhere on a wide spectrum, with no "one size fits all" labels or solutions. Additionally, the daily challenges people face may be compounded by complex multiple or composite disabilities (Allen and Hughes-Hassell 2010; Ennis-Cole and Smith 2011). This circumstance further complicates the delivery of resources and services to library patrons, as librarians will need to be knowledgeable and trained to address and meet the needs of these patrons.

In the K–12 environment, though individualized education programs (IEPs) are provided to students with specific learning or physical disabilities, these IEPs do not necessarily include resources and services provided by the school library program (SLP) (Blue and Pace 2011). Some common culprits behind the prevalence of this oversight are insufficiencies of: administrative support, professional development, budget, advocacy, leadership, training in technologies, and pedagogical knowledge. Students with special needs in K–12 schools often need the most attention, and require specific resources and services from their school libraries to best accommodate their disabilities to ensure success both in school and throughout their adult lives.

The resultant disparate future for underserved students with special needs is disheartening: 21 percent of illiterate American adults have multiple disabilities (IES 2003), and more than 70 percent of this population will go on to be unemployed (von Schrader, Erickson, and Lee 2010). There is, indeed, a vital need for more in-depth research on the role school libraries play in serving students with special needs. In parallel, there is an obvious shortage of research addressing the roles of school librarians and SLPs in special-education schools (Farmer 2009).

Definition of Special Education (SPED)

According to the National Dissemination Center for Children with Disabilities, the term "special education" refers to "instruction that is specially designed to meet the unique needs of a child with a disability" (2010). Because each child with a disability is unique, SPED is distinct for each child. The term "disability" can include visual impairment, hearing impairment, speech and/or language impairment, emotional disturbance, cognitive developmental delays including learning disabilities, Autism/Pervasive Development Disorder (PDD), Asperger's Syndrome, orthopedic impairment, musculoskeletal impairment, and traumatic brain injury (IDEIA 2004). More importantly, this term indicates a spectrum of intensity and conditionality, and/or compound, complex multiple disabilities and variations thereof, including medical fragility.

U.S. Federal Guidelines on Disabilities

In 1975 the federal government in the U.S. responded to the inherent rights and special needs of

children with disabilities by introducing the Individuals with Disabilities Education Act (IDEA) (IPAS 2011). This act allocated billions of dollars for individual states to provide a free and appropriate education (FAPE) in the least restrictive environment (LRE) for the unique learning needs of the nation's school children with disabilities (IPAS 2011). Originally passed as the Education for Handicapped Children Act, the law has been revised a number of times to account for changes in terminology, technology, educational practice, social norms, and other changes related to the education of students with disabilities (Jaeger and Bowman 2005). The latest revision to this law took place in 2004 when IDEA was changed to the Individuals with Disabilities Education Improvement Act (IDEIA). IDEIA's impact on school library programs has been well described by Helen R. Adams: "Because of this federal legislation, students meeting the various definitions of 'disabled' are educated with their peers instead of being isolated and they have the right to be active users of the library media center" (2009, 54).

The physical facilities of a school must accommodate students with disabilities by providing an LRE. These provisions are influenced by a history of national legislation protecting and advocating for persons with disabilities. In 1968 the federal government passed the Architectural Boundaries Act (ABA) mandating that any facilities built with federal funds, such as courthouses, libraries, and schools, be accessible to persons with disabilities. The Americans with Disabilities Act (ADA), passed in 1990 and revised in 2008, prohibits discrimination against persons with disabilities and increased access ranges to general public places. Both sets of laws were revisited and incorporated into the new ADA-ABA guidelines (U.S. Access Board 2004), which have been adopted by several presidential administrations to continue enforcement of laws making all public and information spaces accessible to persons with disabilities. For example, public schools must provide learning environments with counters and workspaces accommodating students seated in wheelchairs, facilities that are wheelchair-accessible with elevators or ramps of appropriate gradient, and signs that include Braille. In 1998 the Section 508 amendment to the Rehabilitation Act of 1973 mandated that all methods of telecommunication, including the Internet, should be accessible to persons with disabilities if the entity receives federal funding (Section 508, 1998). Public schools must be 508-compliant by making information and communication accessible through assistive technologies.

Framework for Study: Gibson's Critical Library Services Categories

Research on the role of SLPs for students with disabilities in American public schools has addressed concepts of inclusive access to collections, services, and programs, and discussed collaboration between school librarians and SPED teachers (Allen and Hughes-Hassell 2010; Downing 2006; Ennis-Cole and Smith 2011; Jurkowski 2006; Perrault 2011a; Small, Snyder, and Parker 2009). However, there is a dearth of research and literature regarding the roles SLPs play in directly supporting the specific needs of students with disabilities as a population (Murray 2002; Farmer 2009; Perrault 2011a).

Lesley S. J. Farmer (2009) has discussed Ava Gibson's four categories of critical library services (Gibson 2006), observing that the needs of SPED students must be accommodated through the lens of these guidelines if learners are to achieve 21st-century learning skills. Although Gibson's categories of critical library services are recommended for an academic library, we concur with Farmer that these categories can be adapted for framing services provided in SLPs. These categories of critical library services are:

1. Policies and Procedures: compliance with federal laws and regulations, policies within the SLP that ensure accountability, accommodating policies;
2. Access to facilities and equipment: physical and environmental access for students with disabilities to resources, assistive technologies;
3. Specific services: a variety of information formats, collection, modes of instruction; and
4. Staff development: general and needs-specific education and training support from administration (Gibson 2006).

Gibson notes that these categories, while distinct, "are not stand-alone categories but are interwoven" (2006, 61). With this idea in mind, we approach and present the literature and research framed within the concepts for each of Gibson's categories of critical library services. Using Gibson's framework, we designed our data collection instruments to explore the school librarian's challenges and solutions in providing these categories of service to students with disabilities within the SPED environment.

Policies and Procedures

In meeting the needs of students with disabilities, school library policies and practice must reflect federal guidelines, such as ADA-ABA guidelines, IDEIA, and Section 508. As indicated in the previous section, these federal guidelines include prescriptions for providing a space that is physically accessible, information that is intellectually accessible, specialized instruction that meets the needs of each individual student and other requirements (Adams 2009).

These federal guidelines can be translated to more-specific policy actions that apply to school libraries, such as specialized selection policies, circulation periods, and accessibility to electronic and Web resources. School librarians also need to construct for their libraries service policies that accommodate the needs of students with disabilities. Flexible policies regarding circulation, and student-specific services such as extended lending periods and alternate methods of access like home delivery should be written into this policy, and should be transparent and shared with stakeholders (Farmer 2009). In constructing service policies, school librarians should maintain a perspective of diversity to ensure the school library is a safe and comfortable place where all students feel welcome to access information and participate meaningfully.

School librarians should verify that the library staff is trained to address the diverse needs of students with a wide array of backgrounds and conditions, and should also take measures to ensure all students are able to attend and participate in events in school libraries (Burgstahler 2011).

Although individual school districts and state education departments mandate their staffs to undergo training or courses that familiarize them with these federal guidelines, it is unclear from the current literature how school librarians translate these federal guidelines into specific policy actions within their school libraries, and whether or not implementation of the guidelines is approached systematically or through trial and error. Depending on the training and professional development to which school librarians have access during graduate school or via school-district professional development, school librarians may not be able to translate these guidelines into actual school library policies or be aware of the critical nature of these skills in practice.

According to Farmer (2009), special educators have expertise in these areas and can assist the school librarian in designing policies and spaces that meet federal guidelines and are specially tailored for the students. Despite the umbrella of federal regulations, school librarians must also be aware of their state laws, which may vary from state to state. For example, schools in

Kentucky must offer students with disabilities *equivalent* access, not only providing modifications that *enable* access, as stated in the Accessible Information Technology (AIT) Act of 2000 (Adams 2009).

Access to Facilities and Equipment

Universal Design (UD) and the Environment

The concern about access to facilities and equipment in SLPs includes physical and emotional accessibility as well as the assistive technologies (AT) that make information resources accessible to students with disabilities. In addition to adhering closely to federal guidelines for physical and intellectual access, embracing Universal Design (UD) guidelines is an optimal way to support students with disabilities in the school library (Blue and Pace 2011; Burgstahler 2011; Farmer 2009; Neal and Ehlert 2006; Parker 2007; Socol 2010; Wojahn 2006). By definition, UD is an architectural approach employed in public spaces to achieve a maximum benefit in accessibility for the largest number of users as opposed to designing spaces for the average user (Blue and Pace 2011). Understanding its impact when applied in the school library, UD has been described well by Sheryl Burgstahler: "When universal design is applied, everyone feels welcome, is able to get to the facility and maneuver within it, access materials and electronic resources, and participate in events and other activities" (2011, 5).

UD can be understood within a few examples of physical environments that support access to students seated in wheelchairs: ramp access with appropriate gradients, full maneuverability radius between shelves and walkways, variant-height circulation desks, and adjustable workspaces. These factors accommodate the seated student and also support the accessibility of resources for all students, thereby not impeding access for any student in the library (Copeland 2011). When speaking about a universally designed space it is important to note that the nature of access affects people emotionally as well as physically. The school library must not be intimidating to the learner, but should be a welcoming space and an inclusive place of diversity and comfort (Burgstahler 2011; Socol 2010; Wojahn 2006). Students with disabilities will experience greater self-confidence in a school library that embraces these ideals of UD (Murray 2001).

UD and Assistive Technology

UD also refers to the assistive technology (AT) that scaffolds information access for students with disabilities (Farmer 2009; Blue and Pace 2011; Socol 2010). Janet Hopkins quoted from the IDEIA Act of 2004 to define AT as "any item, piece of equipment, or product system, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve the functional capabilities of a child with a disability" (2006, 12). AT can supplement 508 compliance to "level the playing field" and bridge the digital divide for students with disabilities (Ennis-Cole and Smith 2011). AT is available as hardware, software, and web-based resources like touch-screen technologies, large-screen monitors, optical scanners, lightboxes, specialized keyboards, headsets with microphone, screen readers, speech-to-text converters, and browser add-ons with easy access to magnification or talking dictionaries (Burgstahler 2011; Cummings 2011; Ennis-Cole and Smith 2011; Farmer 2009; Hopkins 2006; Krueger and Stefanich 2011; Neal, and Ehlert 2006; Socol 2010). AT also takes the form of low-tech tools such as dry-erase boards, laminated photos and albums, three-ring binders,

highlighting tape, calculators, and timers to meet the myriad needs of students with disabilities (Ennis-Cole and Smith 2011). The use of virtual worlds, virtual reality, and video-modeling are effective AT for direct instruction (Ennis-Cole and Smith 2011). Hopkins (2006) has maintained that AT is naturally inclusive and provides *options* for all students, as opposed to simply providing *access* for students with disabilities.

AT Leadership

School librarians are best positioned to be technology leaders and to ally with the students and staff to transform schools and school libraries into dynamic and sophisticated learning environments (AASL 2009; Ennis-Cole and Smith 2011; Subramaniam et al. 2012). School librarians are also able to carefully select AT that will maximize physical and intellectual access to library resources based on students' IEPs and disabilities, and to encourage the use of AT through its integration into the curriculum (Ennis-Cole and Smith 2011; Jones et al. 2010; Myles 2009). School librarians should embrace AT within their SLPs, providing AT training for their library staff and other school staff, if needed (Hopkins 2006). However, studies of school librarians in connection to students with disabilities have found that school librarians are often not consulted about AT acquisition and implementation, do not have a strong focus on AT in the school library, or lack training in its use (Perrault 2011a; Small, Snyder, and Parker 2009).

Specific Services

Variety of Formats

Specific services refer to a variety of preferred formats within the collection that support physical and intellectual access to information resources and various modalities of instruction (Adams 2009; Ennis-Cole and Smith 2011; Farmer 2009). Based on UD, some of these preferred formats for students with disabilities are e-books, audiobooks, talking books, graphic novels, MP3 files and other digital media, Playaways, large print, DVDs, closed-captioned videos, streaming videos, podcasts, and Braille (Adams 2009; Gorman 1999; Hopkins 2006; Farmer 2009; Copeland 2011; Socol 2010).

Welcoming Collection

In addition, a welcoming collection includes materials that represent the diversity of its readers. All students in a school benefit when the school library's collection includes literature featuring protagonists with a disability, using people-first language ("students with disabilities" vs. "disabled students"), containing accurate information, and including accurate and meaningful descriptions and illustrations reflecting students with special needs (Wopperer 2011a). Making available Schneider Family Book Award winners and nominees, books that include strong realistic characters with disabilities, and literature in a variety of accessible formats engenders a welcoming atmosphere in the school library, boosts the confidence of students with disabilities, and cultivates a culture of inclusion for all students (Socol 2010; Wopperer 2011a).

Reader Advisory

Reader advisory (RA), the interaction between school librarian and student as they build a

relationship around literacy, is as critical to students with disabilities as it is to any other learners. Providing literature in which students can see themselves reflected, suggesting materials where the right interest intersects with the right format, providing resources that align with IEPs, and obtaining regular feedback from students are all best practices for providing RA to students with disabilities (Cox and Lynch 2006; Gorman 1999; Jurkowski 2006; Copeland 2011; Socol 2010; Wopperer 2011a).

Facilitated Intellectual Access

Intellectual access should also be inclusive and multimodal or multi-encoded, providing a multisensory experience. Signage, normally encoded in one mode (print), should be encoded in two modes (e.g., large print, and color picture or symbol) or three modes (e.g., large print, and color picture or symbol, and Braille or other texture) to be accessible to a larger group of students. In terms of navigating the school library by means of signs and posters, multimodal or multi-encoded intellectual access is more inclusive to the special needs of students with disabilities (Farmer 2009).

Customized Info-Literacy Instruction

Customization of information-literacy instruction within the library benefits all students, especially those with disabilities. One approach to customization is to coordinate with and tap into the expertise of the school's SPED teachers and IEP staff who have knowledge of both instructional design and students' IEPs (Adams 2009; Ennis-Cole and Smith 2011; Farmer 2009; Murray 2001).

Universal Design for Learning (UDL)

Weaving the above-mentioned services with Universal Design for Learning (UDL) offers a more effective solution for serving the needs of students with disabilities. UDL approaches create more options for students to access, organize, and synthesize information into knowledge. UDL approaches include all students by providing students with multimodal ways to communicate and express their executive functions and creativity within the learning environment (Blue and Pace 2011; Burgstahler 2011; Guild 2008; Krueger and Stefanich 2011; Parker 2007; Perrault 2010). UDL is strongly tied to the principles of UD and to resources that connect students with disabilities to information—AT, educational technologies, print, non-print, and digital media—thus taking advantage of the strengths of preferred formats in tandem with augmented pacing, small group size, and iteration to tailor the learning experience to each unique student while focusing on successful transitions (Allen and Hughes-Hassell 2010; Burgstahler 2011; Perrault 2011b). By using UDL methods in regard to preferred resource formats and modes of instruction, school librarians can effectively engage students with disabilities in learning core curriculum content and developing 21st-century skills (Burgstahler 2011; Blue and Pace 2011; Guild 2008; Krueger and Stefanich 2011; Neal and Ehlert 2006; Parker 2007; Perrault 2010).

Although not always explicitly described as UDL, inclusive and/or differentiated instruction has been observed to be effective for scaffolding the learning processes of students with various disabilities (Allen and Hughes-Hassell 2010; Ennis-Cole and Smith 2011; Gorman 1999; Murray 2002). In terms of collaboration with SPED teachers, school librarians' expertise lies in accessing and evaluating information, providing appropriate or tailored resources, and offering

options in instruction and learning interactions (Perrault 2011a).

Staff Development

Benefits

Staff development may include pre-service training through accredited library graduate programs, or in-service professional development. Especially for school librarians serving specific disabilities in schools, this training should have two tracks: 1) a general track covering federal regulations and UD/UDL, and 2) a targeted disability track with training specific to a particular disability (Farmer 2009). Training that supports a school librarian's knowledge of best practices in interaction with and empowerment of students with disabilities can help to ensure that SLPs provide a welcoming environment to students with disabilities, uniquely tailored services, and resources for positive academic student outcomes (Jurkowski 2006).

Need to Determine Optimal Approach

Despite a recent push for training within the profession to best support the needs of students with disabilities, there seems to be a lack of discussion on what type of formal training should be provided. Janet Murray (2001) has stated that 79 percent of Australian school librarians were strongly urged to collaborate to meet the special needs of students, but reported needing disability-specific training beyond the general disabilities training that only *half* the respondents had received. Although the research by Murray (2001, 2002) has drawn international attention to the need for further-refined research exploring the role school librarians play in meeting the needs of students with disabilities, very few studies have extensively examined the state of SLPs from a SPED perspective in the U.S.

Evidence of Insufficient Training

John E. Cox's 2004 study of forty-eight rural Missouri K–6 school districts focused on the training and knowledge of school librarians in meeting the needs of students with disabilities, particularly in an underserved geographical area. The resulting data that emerged was discouraging. Less than 50 percent of the school librarians in the sample had ADA-ABA training, and close to 100 percent of school librarians believed the school library was ADA-ABA-compliant despite the fact that answers to specific survey questions about physical and intellectual access clearly did not add up to full compliance—a circumstance pointing to both a deficit in students' access and a lack in recognition of this deficit (Cox 2004).

Anne Marie Perrault's (2011a) study of six New York State public schools examined the relationship between school librarians and SPED teachers; her study also evaluated their instructional partnership and potential for collaboration. Perrault found that teachers were interested in providing better support for their students, but were frustrated by the search for resources that met the special needs of their students. School librarians saw the need for a wide range of multimodal approaches, and played to their strengths as leaders and information gatekeepers, but gaps in optimizing the situation for SPED teachers and students were identified as stemming from lack of training within coursework in library and information science post-graduate degree programs.

Similarly, in their statewide survey of school librarians' role in New York State public schools, Ruth V. Small, Jaime Snyder, and Katie Parker (2009) found that only 3 percent of school librarians surveyed have had SPED training. As a consequence, school librarians tended to place a stronger focus on IEPs and selecting materials reflecting persons with disabilities as protagonists rather than on providing physical and intellectual accessibility or on bringing AT expertise into the librarians' role as technology specialists.

In 2011, Demetria Ennis-Cole and Daniella Smith reported the results of their nationwide study of public school librarians and their skills in supporting students with autism. These researchers recommended that specific SPED training in the library and information science (LIS) curriculum would better equip school librarians to serve the special needs of these students and encourage librarians to take a leadership role in AT in their schools.

Yet there is an astonishing lack of dedicated coursework to prepare emerging and returning school librarians in meeting the challenges of empowering students with disabilities. An examination of *U.S. News & World Report*'s top school library post-graduate programs reveals that only two out of thirteen top school library programs in the U.S. have coursework designed to prepare librarians to meet the needs of students with disabilities specifically within the school library environment. Clearly, a deficit in pre-service and in-service staff development in both the general and targeted disability tracks is evident.

Methodology

Research Questions

The purpose of this study is to examine the ways that SLPs serve students in schools that serve only students with a specific disability, such as vision impairment, autism, etc., (referred to as SPED schools), and the challenges and solutions associated with providing access and tailored services. We formulated four research questions based on Gibson's categories of critical library services (Gibson 2006; Farmer 2009):

(1) How do school librarians adopt federal guidelines on disability to better serve students with specific disabilities in these SPED schools?

(2) What are the types of facilities, services, and resources SLPs provide to students in these SPED schools?

(3) What are the technologies (including adaptive) that facilitate physical and intellectual access for these students within the school library?

(4) What specialized training enables these school librarians to best support the needs of students in SPED schools?

Sample

Using purposeful sampling, we selected four schools serving students with a specific disability in the mid-Atlantic region:

- School A serves students with autism spectrum disorders (ASD), Asperger's syndrome and PDD;
- School B serves students with vision impairment;
- School C serves students with disorders of the brain, spinal cord and musculoskeletal

system;
- School D serves students with hearing impairment.

These targeted schools are specifically modeled with a primary and specialized focus on the needs of students with disabilities. Such purposeful sampling provided us with rich and in-depth data on each SLP that serves specific disabilities.

Observation and Interview Protocols

Using a case-study approach, we observed the school libraries in the above-mentioned schools and conducted semi-structured interviews with the librarians. Robert K. Yin (1994, 2003) and Sharon B. Merriam (2001) have provided guidelines for conducting multiple case studies. Yin defines the case-study method as "an empirical inquiry that investigates a contemporary phenomenon with its real-life context; when the boundaries between the phenomenon and context are not clearly evident; and in which multiple sources of evidence is used" (1994, 23). Case studies allow for unique and very detailed information to be gathered.

Based on Gibson's categories of critical library services (Gibson 2006; Farmer 2009), we developed a set of questions used to interview the school librarians. Refer to Appendix A for our interview protocol. School librarians were asked about:

- their familiarity with federal guidelines pertaining to SPED and their experience developing SLP policy;
- how school library facilities support physical access;
- ways that specific services—including collection development, RA, and instruction—support intellectual access;
- what kinds of AT and educational technologies are used in the school library and what the librarians' role is in relation to these technologies;
- levels of collaboration with teachers;
- their educational background and how well they believe it prepared them for their current position; and
- how further training is made available to them, who supports this training, and the ways they stay abreast of SPED librarianship, including professional memberships, attending conferences, networking, and finding information through the Web.

Each interview lasted approximately sixty minutes and was digitally recorded with the permission of the school librarians. The interview guide was pilot-tested with two retired librarians from SPED schools.

Based on the initial review of literature and research on UD and UDL and the federal guidelines (U.S. Access Board 2004; Blue and Pace 2011; Burgstahler 2011; Farmer 2009; Copeland 2011; Perrault 2010; Wojahn 2006; Wopperer 2011b), we identified a wealth of information pertaining to the characteristics, facilities, technologies, and collection resources that foster physical and intellectual access for students with disabilities and position the school library to be an inclusively welcoming and engaging space for all students. Many authors compiled lists within their own articles, and we followed their examples by creating a master list to capture data on the characteristics, facilities, technologies, and collection resources of each school library during our observations. Refer to Appendix B for our observation checklist. Characteristics were broken up into categories of access with blank spaces left throughout the checklist to add other characteristics as we observed them. As part of the observation process, we also took photographs to supplement the field notes recorded during the visit.

Methods of Analysis

The interview transcripts, field notes, photographs, and observation checklist were analyzed as they were completed. We conducted thematic analyses of each individual SLP (Braun and Clarke 2006) based on the research questions. Each SLP was an individual unit in this study, allowing for detailed gathering of information based on Gibson's framework of critical library services for the specific type of disability served by each SLP, and supporting cross-case analysis between units to identify common themes. We used NVivo qualitative analysis software to examine multiple sources of data to find common themes. To preserve the anonymity, pseudonyms are used in lieu of school librarians' names (with their permissions), and schools are identified by letter codes.

School Descriptions

For an overview of all schools, see table 1.

Table 1. School overview.

School	Librarian	Age/Grade Range	Disability Focus	School Librarian's Credentials	Library Assistants (PT = Part-Time; FT = Full-Time)
A	Hannah	ages 4–21	ASD, Asperger's, PDD, multiple learning needs	No MLS degree Former SPED teacher	PT (students)
B	Dana	ages 3–21	Visual Impairment-blind, deaf-blind, blind + intellectual and/or physical disability	MLS degree	No
C	Sean	grades Pre-K–8	Traumatic brain injury, musculoskeletal disability, multiple learning needs	No MLS degree Master's in Education with a Library Media specialization	1 FT (staff), and PT (student)
D	Monique	birth–grade 5	Aural Impairment-deaf, hearing impaired, multiple learning needs	No MLS degree Master's in Deaf Education	Revolving parent and student volunteers

School A

School A is a private SPED school serving students ages 4–21 with Asperger's Syndrome; ASD or PDD; and speech, language, and multiple complex disabilities such as autism with orthopedic or musculoskeletal disabilities. Operating in one of America's most affluent counties but serving students from all over the state, the school currently has 30.8 full-time equivalent (FTE) educators for a student-teacher ratio of 6.5:1. The school's instructional approach is guided by the age of the students and their position on the autism spectrum. Instruction includes specialized programs that address the performance of basic everyday tasks, communication with others, and workplace training to scaffold independent living, in addition to teaching of a foundational academic curriculum, technology skills, and 21st-century literacies. Hannah is the full-time librarian; a former SPED teacher, she has no formal library training. Students assist in the school library.

School B

School B is a private SPED school serving students ages 3–21 with vision disabilities, such as low vision, blindness, deaf-blindness; and in conjunction with vision impairment, complex multiple disabilities, such as autism, orthopedic, musculoskeletal, and/or cognitive/learning disabilities. Operating on the outskirts of a major urban center but serving students from across the state, the school is populated by students from public schools that lack the facilities and resources to adequately support the learning needs of these students. School B currently has 44.6 FTE educators, and a student-teacher ratio of 3.8:1. The school's instructional approach adheres to state standards and is guided by the age, level of disability, and academic potential of its students. It currently houses specialized programs that address the performance of basic everyday tasks, behavioral and communications solutions, and intellectual disabilities in conjunction with visual impairment. Dana, the full-time librarian, has an accredited MLS, and has worked with a range of challenged students and populations throughout her career. She is self-taught in SPED and has learned on the job to read uncontracted and contracted Braille. No one assists the librarian.

School C

School C is a private SPED school serving Pre-K–8 students with traumatic brain injury; musculoskeletal, cognitive, learning, and emotional disabilities; medical fragility; or multiple complex disabilities combining two or more of the above-listed disabilities. Embedded in a major urban center but serving students from throughout the region, it is part of a medical-research institute supporting the needs and education of children with various complex disabilities. The school has 24 FTE educators and a student-teacher ratio of 6.8:1. The school's instruction aligns with national and state standards and assessments. Programs are designed to reflect the academic goals of students in specific age groups, and to foster behavioral and communication skills. Sean, the full-time librarian, has a Master's in Education with a Library Media specialization. With the support of his principal, Sean is currently pursuing a Master's in SPED. He has one full-time assistant; students also assist in the school library.

School D

School D is a SPED private school serving students from birth through grade 5 with aural

disabilities and hearing impairment, such as deaf and hard of hearing, as well as multiple complex disabilities involving emotional, learning, and developmental disabilities, including those who are medically fragile. The school has 97 FTE educators, and a student-teacher ratio of 6:1. Operating on the edge of a small city but serving students from throughout the state, the school serves elementary students as part of its parent campus, which is one of two in the state. School instruction aligns with state and national curricula and assessments, and is guided by the age, level of disability, and academic potential of students. School D provides specialized programs in basic everyday skills, career and technology education, and high academic achievement. Students are immersed in a fully bilingual environment: English and American Sign Language (ASL). The school has an extensive support staff as well as services including audiology for students with transitioning hearing. Monique, the full-time librarian, has a Master's in Deaf Education; she has no formal library training. She is deaf and has taught deaf students as well as having served as a school administrator for more than thirty years. She is assisted by revolving parent and student volunteers.

Findings and Discussions

Research Question 1: How do school librarians adopt federal guidelines on disability to better serve students with specific disabilities in these SPED schools?

Means of Professional Development

All the school librarians we interviewed indicated that they have acquired knowledge about federal guidelines through one or more of the following channels: 1) formal education acquired through graduate school; 2) additional training that was provided to them when they joined their current school; 3) continuous self-learning by retaining relationships from their previous professional experiences; 4) subscribing to electronic discussion lists; or (5) connecting with other libraries.

Hannah, Sean, and Monique (none of whom have an MLS degree) were trained on federal disability guidelines through their graduate coursework on SPED. On the other hand, Dana, who has a MLS degree from an ALA-accredited program, did not acquire the knowledge about federal guidelines from her graduate program, but instead kept herself abreast of the guidelines through her strong connection to the National Library Services for the Blind and Physically Handicapped (NLS) and other nearby public libraries.

All of them continue to connect with peers who provide similar services and subscribe to relevant professional electronic discussion lists. Sean has memberships in several professional organizations, frequently attends their conferences, and connects with other professionals using social media. Sean, Dana, and Monique also keep up with a variety of professional journals.

Lending Policies

The librarians interviewed do seem to modify their lending policy to fit their students' needs. This translates to less stringent policies for late returns (such as the waiver of fines, late fees, or penalties for lost books) of library materials or to specific policies for certain types of materials. Occasionally, parents are contacted to request books be returned.

> "My standard checkout is two weeks. I extend for two weeks. I extend for another

> two weeks. And I ask you please do not lose it over Christmas and please bring it back before summer, so…it's a little elastic sometimes." —Dana, School B

> "…I'm lenient, because sometimes they do lose books, and I don't like restricting them from checking out another book 'cause they love coming to the library. This is a school where the library is very special to kids…We'll work with the teacher or the parent to try to find the book. If we can't find the book, I list it as 'lost' in the system, and we hope that it comes back when we do our inventory." —Sean, School C

Hannah, for example, notices that students in the Asperger's program at her school read the same book multiple times and have heightened interest in popular young adult literature and graphic novels. As a result, she chooses to have a special one-week checkout policy for these materials, but no fines or penalties for late returns:

> "And now in our Asperger program, those students are really very motivated to have the same books. They want all the popular-culture stuff and the graphic novels and those kinds of things…so there I'm a little stricter about bringing them back in a week because the other kids have seen it and they want it. I finally had to start putting holds in my computer, which I never had to do before." —Hannah, School A

Dana is restrictive when it comes to checking out reference books or textbooks; only teachers and parents can borrow these materials:

> "I will lend reference materials; textbooks and professional materials will only go out to staff or to parents. I will lend, for example, textbooks over the summer to parents on an individual request." —Dana, School B

There also seems to be no limit to the number of books a student or teacher can check out:

> "…some of them will have 10 or 12 books out or, you know, it just depends. And teachers check out as much as they want…" —Hannah, School A

Although most of these school librarians do modify their lending policy, these modifications are not seen exclusively in SPED schools. In fact, other school libraries, not just those in SPED schools, are implementing special lending policies as well (Heeger 2007; Shahbodaghi 2006; Ruefle 2011).

The only unique lending policy that we found was the School B SLP's allowing reference, textbook or professional materials to be checked out by parents based on individual requests. This kind of policy can benefit parents tremendously, allowing them to have access to reference and textbook materials in the comfort and pacing of their home environment, and allowing for increased support for their child.

The above example on flexible adoption policy is one among many ways that the librarians translated federal guidelines into actual policy in their SLPs. In the next section, whenever appropriate, we further discuss the adoption of federal guidelines as it relates to facilities and services that are provided in each SLP.

Research Question 2: What are the types of facilities, services, and resources SLPs provide to students in these SPED schools?

Physical Access

Using the observation checklist (Appendix B), we observed the physical access to facilities within each school library through the lens of UD as well as ADA-ABA guidelines. An analysis of each school library's physical characteristics at a glance can be found in Table 2.

Table 2. Characteristics of physical access in each school.

School	Physical Access Attributes
A	Handles instead of doorknobs, close proximity of learning centers on ground floor, low-pile carpet, mixed lighting, mixed shelf heights, workspaces and circulation desk heights appropriate height for students in wheelchairs, colorful rug in story-time area
B	School library on ground floor, low-pile carpeting, comfortable seating (limited), long sight line
C	School library on ground floor, two double-door entrances and one wheelchair-accessible entrance, push handles, low-pile carpeting, stage with wheelchair ramp, adjustable and mixed lighting, workspaces and circulation desk accommodate students in wheelchairs, adjustable workspace (limited), comfortable reading area
D	Push-button doors, ground floor, low-pile carpet, excellent natural and adjustable lighting, lunette layout with radiating sightlines, multi-height circulation counter (wheelchair-accessible), comfortable seating (oversized beanbags), all areas [except workspaces] wheelchair-accessible, colorful carpets in story-time area, instruction area, storage unit for teacher access

All librarians interviewed in this study acknowledged that their school libraries could have better physical access, but cited similar challenges that prevent ideal physical access: age of the building, budget constraints, and inadequate consultation with the school librarian prior to renovation.

For example, School B was constructed before ADA and ABA legislation went into effect. Therefore, the library is not wheelchair-accessible. Also, the layout of the library has a more traditional approach with long sight lines, but no natural light. A lack of usable space makes resources nearly inaccessible to students seated in wheelchairs and makes instruction for large groups or full classes impossible. Poor acoustics within the space also adversely affect interaction with students who may rely strongly on receiving information aurally. Additionally, the space must house both contracted and uncontracted Braille materials. To accommodate this need, materials must be stored on shelves that are too high for younger students to reach; these tall shelving units are the only shelf space available.

> "The biggest issue we have is access. There are some wonderful tools here. They are not usable unless the access component is there." —Dana, School B

Budget is always an issue in providing adequate physical access. However, compliance to the federal guidelines is absolutely necessary to ensure that all students have access to learning and leisure spaces such as the school library.

We also discovered that school librarians in these SPED schools were rarely consulted in the design or renovation of the school library, thus resulting in a lack of design features that would

otherwise enable physical access to the school library. The value of involvement of librarians in the design of school libraries is discussed at length in Baule 2007; Erikson and Markuson 2007; Jones 2001.

Intellectual Access

All the school libraries we observed had multimodal or multi-encoded signage on library shelves and maps that are specific to facilitating their students' intellectual access to library materials (see table 3).

Table 3. Characteristics of intellectual access in each school.

School	Intellectual Access Attributes
A	Dual-encoded shelf signage appropriate for low-vision, information cards, shelf markers, dual-encoded taxonomy, maps of library, Dewey posters, literacy and citizenship posters, Internet and OPAC access for students, Velcro signage
B	Dual-encoded large-font signage for walls and triple-encoded for shelves appropriate for low- and no-vision, talking signage, posters promoting literacy, Dewey posters, bilingual posters (Spanish), textured and/or talking globes, unique children's area with stimulating posters and textured toys and puzzles, Internet access for students
C	Large-font signage and dual-encoded shelf signage accommodates low-vision, reference cards, posters promoting literacy, Dewey posters, geographical maps, 3D puzzles and models, oversized student art hanging throughout the space, textured toys, Internet and OPAC access for students including databases
D	Large-font high-contrast signage, posters promoting literacy/deaf culture/multiculturalism/citizenship (state capitals, world map, etc.)/windows to the world (animals, etc.), stuffed animals and toys, no computer access for students

The interviews revealed that intellectual access also meant that students have access to the school librarian, and not just the materials and resources provided in the library. The librarians view themselves as ambassadors of information access for their students.

> "I'm about access. I like them having access to me. I like building relationships with them." —Sean, School C

Specifically, resources enabling students' access to the online collection seem to be more challenging to provide; these resources include having computers, with access to the Internet and OPAC, designated for student use and having digital collections such as databases.

> "I don't have a computer for them to look for books. They have to ask me and then I will show them where it is. Or I will write it down, and they will look for it themselves...the program that I use…to feed books into or to find books or to borrow books from…I'm the only one [who] can access that." —Monique,

School D

Collection Development, RA, and Special Services

When building their collections and providing RA, all the school librarians included in this study pay great attention to the needs of their students. When ordering library materials, the librarians interviewed take into consideration their students' reading levels and preferred formats, and add materials in which students can see themselves reflected in the characters. These methods for collection development are summarized in table 4.

Table 4. Collection development and reader advisory practices in each school.

School	Preferred Format	Reader Advisory (RA) Practices
A	Highly visual materials Use Fountas-Pinnell guided reading levels	Hannah takes requests, asks students directly what reading levels they are comfortable with, provides books in preferred formats, helps in choosing while promoting self-selection through color-coded taxonomy and signage with text and corresponding pictures (dually encoded intellectual access).
B	Tactile and audio-oriented materials	Dana takes requests, provides books that align with reader's interest and preferred formats, attempts to tie to more challenging or classical reading fare.
C	Highly visual materials and those accommodating musculoskeletal and complex disabilities (such as (digital storybooks, e-books, CDs, audiobooks, database resources)	Sean takes requests, builds relationships and talks with students about their interests to make suggestions, promotes self-selection through signage with text and corresponding pictures (dually encoded intellectual access), creates special sections (new books, award-winning books, books with protagonists with disabilities called "Special People").
D	Highly visual and bilingual materials (such as those in English and American Sign Language)	Monique takes requests, understands challenges on a personal level (including reading level), provides suggestions, pays attention to reader responses, uses these observations to continue providing recommendation of new materials.

The importance of paying attention to reading levels of the students was repeatedly mentioned by the librarians we interviewed:

> "And I know what reading level they have and I know how to teach deaf children. That is so important." —Monique, School D

> "...if it's a nonfiction book talking about a plant, and it's got two sentences on a page instead of a whole page of text, that's something from the smallest ones to the oldest ones can use and then choosing anything else in between that. But really that's always my goal, trying to find more things for the older students

> functioning at a lower level." —Hannah, School A

The materials selected must also be usable by students with specific and multiple disabilities. Although these schools primarily address a specific disability, many of the students have other disabilities as well.

> "As you can see, when you take a look at the books, there are a couple of problems. Number 1: They're big. How does a small child with orthopedic or some other physical incapacities handle the materials?" —Dana, School B

Dana has used digital services like Bookshare to expand the formats of the collection. The preferred format for resources also varies and depends on students' preferences and disabilities.

> "…I have some students who are strictly audio. They don't read Braille. They hardly even read print." —Dana, School B

> "We are what you call 'bilingual' education school program. We sign, and we model the language…But the one thing that I noticed with our students: Those who do not like to read, they love graphic novels…They will come after my story telling and go straight to graphic novels." —Monique, School D

Finding materials that best suit the needs and tastes of the students seems to be a priority with these librarians. Challenges include finding literature that features protagonists with disabilities in formats most preferred by the students, such as having the Schneider Family Book Award winners in Braille or audio format. Sean summarizes this priority succinctly:

> "I'm really working hard on building a rapport with all the students, paying attention to what they check out, type of books, and…topics that they like, and so that's always the center…of ordering materials…" —Sean, School C

Instruction

The environment supporting instruction differed in each of the school libraries (see table 5). Although information-literacy instruction was important to each of the school librarians, instruction often happens one-on-one with a student (just-in-time instruction), in isolation due to fixed scheduling challenges, or primarily focuses on behavioral instruction (such as socialization). Instruction is reinforced by concentrated materials that teachers provide directly to students. All librarians indicated their eagerness to attempt collaboration (two were not doing any coordination or collaboration at the time of the interviews), or have been successful and would like to attempt collaboration at a higher level, as in Sean's case. They also shared challenges to successful instruction in the school library, challenges such as behavioral and access problems.

> "And sometimes that happens—I'll have a really well-planned lesson, and 2 or 3 minutes into it, I'm done. I have to stop, and then to go back; come back because the kids are getting up and walking around, and getting angry." —Sean, School C

Three out of the four librarians described framing instruction around various standards, such as AASL's 2007 *Standards for the 21st-Century Learner*, as well as state, county, and national academic standards and curricula.

Table 5. Instructional aspects of each school.

School	Scheduling	Classes in Library	Collaboration Level
A	Flexible and fixed	One-on-ones or small groups	None
B	Fixed	One-on-ones or small groups	None
C	Fixed	Every student and every class	Coordination mostly, but some collaboration
D	Fixed	Every student and every class	Coordination

Special services and programs can be innovative methods to engage students with disabilities in building their literacy. Dana arranges for local authors to come give talks and read to students in the school library. At School C, Sean revived a special school program, Read Dog, and brought it into the library space. Combining literacy and animal therapy, a dog visits the library several times monthly, and the children read to the dog. Sean communicated that this program has had a dual positive impact in both literacy and behavior. Sean also developed the Adopt-a-Shelf program for students, which has been shown to increase confidence and promote feelings of ownership within the library.

Research Question 3: What are the technologies (including adaptive) that facilitate physical and intellectual access for these students within the school library?

Each school library supported access to different assistive and educational technologies, based on the nature of students' disabilities and learning needs; these technologies are summarized succinctly in table 6. However, our study reveals that three out of the four librarians were not consulted in the acquisition of the AT for their school and sometimes not for their libraries. AT is normally purchased by a technology committee or an AT coordinator in the school. Feedback is generally sought from the school librarian through trial and request periods, but, ultimately, the school librarian does not make the acquisition decision on the AT that is needed in the library.

> "Well, it's the woman who does the assistive technology… She orders the subscription databases. I have some input in it, but like the Tumblebooks, I actually did not get that approved." —Sean, School C

Table 6. Assistive and educational technologies at each school.

School	Assistive Technologies (AT)	Educational Technology (and Others)
A	Kurzweil, Read & Write Gold *In computer lab:* large-screen monitor, trackball pointing devices instead of mice, oversize keyboards, talking browser, optical scanner, eInstruction Mobi, Intellikeyboard, IntelliTools Classroom Suite, online resources	Mimio interactive whiteboard, TV with DVD/VHS player, computer with Internet connection and catalog access, printer, piano keyboard, headphones, tape cassette player *In computer lab*: multiple computers, record player, CD player, Mimio interactive whiteboard, Epson LCD projector, scanner, headphones
B	APH Brailler (Perkins), JAWS, Kurzweil 3000, Boardmaker software, TTY/TTD, dictation software, talking browsers, optical scanner, lightboxes, Klas 508 compliant integrated library system, large screen monitor, CC-TVs	Computer with Internet connection, mobile TV with DVD/VHS player, printer, scanner, record player
C	ReadingPen, AlphaSmart devices	Four computers, printer, scanner, SMART Board interactive whiteboard (non-functioning), Epson LCD projector, Flip cameras, amplified speakers, microphone with stand, mobile TV with DVD/VHS player
D	None. Cochlear implants for eligible students [according to disability needs] are provided by school or home	Computer for librarian's access to OPAC and Internet, SMART Board interactive whiteboard

Research Question 4: What specialized training enables these school librarians to best support the needs of students in SPED schools?

As mentioned above, very few LIS graduate programs have coursework designed to help pre-service librarians develop skills specific to meeting the needs of students with disabilities and using AT specifically within the school library environment. In fact, current research indicates that very few LIS graduate programs include adequate teaching and learning about the federal guidelines and how libraries can accommodate patrons with disabilities (Alexander 2005).

From our interviews, we found that having SPED knowledge, training, and/or certification is an extremely valuable asset for working with SPED students. Knowledge necessary to keep abreast of new AT and legislation or policy changes related to SPED on the federal and state levels is something the librarians we interviewed seek out, and consider valuable and necessary in their

current positions. Three out of the four librarians seek specialized SPED training and support on their own, such as training in AT, courses on a specific disability, and special seminars and workshops in federal disability guidelines and policies. As Dana (who does not have a SPED background) describes below, she is self-propelling her professional development:

> "I had never worked in a largely residential setting or in Special Ed setting before. On my own, I have taken care of Kurzweil 3000. I have learned contracted and uncontracted Braille. I had made sure I understood 508-compliant. I make sure I understand it**.** My employers have not asked me to do this beyond just my job description … first-aid certificate and uncontracted Braille. When I went back to my supervisor and said I learned the uncontracted Braille, I was told that was old stuff; we don't bother; we need the contracted. I picked up the contracted. Next week I will not be available because in order to renew my teaching license I have to take reading courses. So teaching reading in the content areas parts 1 and parts 2, I'll take 5 days…. Truthfully, another reading course for me is not necessary. What I needed was the Braille. What I need is an entire summer just working on Kurzweil. I'll do all that on my own." —Dana, School B

Sean is pursuing a SPED degree, because he is convinced that this knowledge and training will allow him to best serve his students:

> "… I was really just supporting the teacher in the classroom, so I decided that I wanted to, of course, have the knowledge that I didn't get in my graduate degree, so I'm doing another Masters in Special Education." —Sean, School C

Although they have no LIS degrees, Hannah and Monique, who have backgrounds in SPED, feel more confident that they are able to fulfill the needs of the students through the services and resources they provide in their SLPs, are adequately trained in federal guidelines and policies, and believe that the most valuable professional development for them is in-service professional training, primarily in AT.

The reason behind less confidence in self-teaching is best summarized by Dana:

> "I don't feel the Special Education community really knows how to support my continuing education but I also don't think my professional colleagues [school librarian community] know either. I think we're all in a bit of a brave new world." —Dana, School B

All librarians who participated in this study rely heavily on professional networks (within and outside their schools), professional journals and magazines, and professional organizations such as ALA, ISTE (International Society for Technology in Education), and other national and state library and SPED associations to keep them informed of new developments within the library and SPED fields. Only one librarian, Sean, described the use of social media to network with other professionals as one consistent way he chooses to grow professionally.

Conclusions and Further Research

Introduction

Our findings suggest that, if adequate pre-service and in-service training is provided and pertinent support is received from outside and inside of school, school librarians can play a highly influential role in empowering students and staff in SPED and non-SPED schools.

Challenges

In addition to providing descriptions about policy accommodation, physical and intellectual access provided in the library that aligns with specific disabilities, AT that maximizes access to the library and the channels of professional development and networks that are embraced by librarians in SPED schools, this study also illuminates the challenges that these school librarians face in designing and delivering services to students with disabilities. Using Gibson's framework of critical library services (Gibson 2006; Farmer 2009), we identified several challenges associated with each category of service provided by librarians in SPED schools:

- Policies and procedures—Post-graduate school library programs do not adequately prepare librarians to be aware of and fully understand federal disability legislations and policy;
- Access to facilities and equipment—School libraries are not physically accessible primarily because of the age of the buildings that house the libraries, constrained budgets, and inadequate consultation with the school librarian prior to renovation. Specific resources for students' access to a collection that aligns with their IEPs and disabilities seem to be more challenging to provide in SPED environments. Librarians were also not consulted in the acquisition of the AT for their schools and for their libraries, and may not have been prepared by their graduate coursework to implement and train others in the use of AT;
- Specific services, including the provision of a variety of formats, collection development, modes of instruction—Challenges include providing materials that are accessible according to the specific disabilities of students, finding literature that features accurate portrayals of protagonists with disabilities in the format most preferred by the students, and finding ways to collaborate with SPED teachers;
- Staff development—School librarians need to be self-propelled when it comes to professional development, seeking help through their own professional networks, professional associations and conferences, and sometimes with not much support from their administrators.

Recommendations

Based on the findings above, we provide several recommendations to school librarians in SPED schools (and school librarians in general who work with immersed ("mainstreamed") SPED students):

- Keep abreast of federal and state disability guidelines and policies, and advancements in AT; accomplish this goal by participating in professional networks with SPED educators, learning from other libraries and cultural institutions, interacting via electronic discussion lists and social media, reading professional journals and magazines, and being active in professional associations;
- Evaluate and upgrade physical and intellectual access to your school library; use the checklist provided in Appendix B, a list which can be customized as needed to better align with UD, UDL principles, and ADA-ABA guidelines;
- Advocate for involvement in the design and renovation of your school library;
- Be vocal about your involvement in the purchase of AT for your school and the library;
- Select materials that conform to the various needs and individual preferences of students and ensure that materials feature accurate portrayals of protagonists with disabilities; and

- Consistently take advantage of professional-development opportunities to ensure that you have the most current information and strategies to serve your patrons.

General Applicability of Recommendations

Our research findings have implications for mainstream public schools as well as SPED school. Teachers and school librarians in general-education public schools who also serve students with special needs in an inclusive setting can use the results and suggestions from our research and implement them to fit with their curricula and their specific school populations.

Taking a look at the newly implemented Response to Intervention (RTI) framework that has been folded into special education laws in the U.S. reveals that schools and school staff *must* help children who are struggling academically or behaviorally in a public school setting. This need is a part of the "universal screening" aspect found within the RTI model (National Dissemination Center for Children with Disabilities 2012).

The interventions needed to help students with special needs (or potential special needs) in a mainstream, non-private school can be facilitated by the strategies and tools the school librarians highlighted in our study implement with their specific populations of students. For example, a central concept found within the RTI framework is tiered instruction (National Dissemination Center for Children with Disabilities 2012), which takes advantage of "adapted and individualized instruction." School librarians can, by applying the expert knowledge they possess on AT, UD and UDL, facilitate this tiered instruction with the technologies and materials available in the school library.

Additionally, the UD and UDL recommendations espoused in this paper can be implemented by mainstream inclusive public schools. Design principles, such as adjustable lighting and seating, dual-encoded large-print signage, and adequate walkway widths to name just a few, not only allow students with impairments to have full access to the information and materials in the library, but allow all students who use the library space to have easier, custom-designed experiences in their school libraries.

Further Research

Looking forward, we intend to enrich the findings of this study by extending our study to include other SPED school libraries in the region, including regular public schools with immersed SPED environments. As we examine more schools as individual units, obtain richer data on the challenges faced by SLPs and on how individual school librarians overcome these challenges, we hope to develop in-service training opportunities, such as short training and certification courses that can assist practicing school librarians in developing the skill sets needed to provide optimal services not only to their students who have disabilities, but to all students inclusively.

We also hope to provide detailed recommendations for course content in school library preparation programs, and further encourage library and information science programs to include elements of SPED services in their curricula.

Closing Thoughts

All K–12 educators should approach their roles with an attitude of inclusion and equity, no matter what the circumstances or who the students are. According to Gibson, "inclusion and

equity are a right for all students" (2006, 59), not just for some or for those who fall into the ideal (and possibly nonexistent) "average" category. Through our research, we hope to encourage and stimulate further discussion and exploration into how school library programs can not only serve students with impairments in specific, private, SPED environments, but in all school environments to meet the needs of every child who enters their doors.

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Appendix A: Interview Questions

Let me ask you a little about the library program you've developed here in your school.

1. Would you please share with me your strategies in how you build the library collection to support learners with special needs? *Follow with probing questions as needed for more information on media formats, stories with protagonists with disabilities, etc.*

   Probing questions may include:

   - How do you select your print collection (characteristics, kinds of books)?
   - Is the collection available in different formats depending on the needs of the students? How is it varied?
   - Who has input on your collection development?

2. Does the library use any special lending methods like extended lending periods, home delivery, or allow students to take any technologies [that improve access] out of the school library or off school grounds?
3. In your opinion, how does the design of the school library support learners with special needs?
4. Can you tell me about the computer software and assistive technologies that are available to help accommodate access? Are you or the SLP involved in the acquisition and use of these technologies?
5. How do students and staff of this school primarily use the services and resources that you offer in the school library? Which services/resources are popular?
6. Are there any types of services or resources that <u>your</u> library program champions that you have not shared with us yet?

We want to learn more about what kind of training prepares school librarians to support and teach learners with special needs.

1. Can you tell us a little bit of your educational background? Do you have an SLM certification? Did you learn anything in your graduate coursework or [while getting your School Library Media certificate] that prepared you to serve this specific population of students?
2. Did your school or county support you in getting any additional training or certification to help you support and empower learners with special needs?
3. Are there any courses or training that you wish you had taken or you wish you could take to strengthen your knowledge and abilities to serve students with special needs in your school?
4. How did you become familiar with federal laws and regulations associated with students with disabilities *(if this does not become clear from the response to an earlier question)*? In your experience, how do they impact the school library program? How do they benefit your students?
5. Could you tell me about any organizations, social media, websites, or other professional development that help you to increase your knowledge of best practices in serving

learners with special needs?

We're also very interested in how collaborative teaching methods can benefit learners with special needs.

1. How do you partner with teachers in your school to inform their teaching of information-literacy skills? How often do you collaborate with other teachers?
2. How do you coordinate with staff/teachers to assess things like physical access in the school library, and what kinds of resources and collection acquisitions best accommodate your learners?
3. Do you coteach and coevaluate any lessons or units with the teachers? Can you share any examples?

If there is time, we can obtain a little bit more information about the program.

1. What kind of scheduling does the SLP employ?
2. Does the library program have any assistants or volunteers?
3. Do you partner with any other libraries (public and school) in your network (district, local, regional)? If so, in what ways?
4. In a perfect world with a perfect budget, in what ways would you like to see improved access and accommodation for learners with disabilities within your own library and the school?

Appendix B: Observation Checklist

PHYSICAL ACCESS	
Ramps (for height differences exceeding 1/2”)	
Automatic doors with push buttons	
Voice-activated doors	
Door handles (instead of doorknobs)	
Audible signals	
School library on ground floor or accessible by handicapped-accessible elevator	
Low-pile carpet	
Beveled changes in flooring height (for height differences below 1/2”)	
Adjustable lighting	
Handicapped-accessible bathroom in school library	
Comfortable seating (beanbag chairs, armchairs, reading rockers, etc.)	
Silent-reading area	
Multimedia studio (broadcasting room, TV station, etc.)	
Kitchenette in school library	
Height-adjustable workspaces and/or counters	
Width of doorways & walkways for students in wheelchairs (32” minimum)	
Turning spaces for students in wheelchairs (60” minimum)	
Workspace/table clearance for students in wheelchairs (27” minimum [knee], 6”x9” minimum [toe])	
Height of shelves & service desks for students in wheelchairs [age 3–4] (20”–36”)	
Height of shelves & service desks for students in wheelchairs [age 5–8] (18”–40”)	
Height of shelves & service desks for students in wheelchairs [age 9–12] (16”–44”)	
Height of shelves & service desks for student in wheelchairs [age 13 & up] (15”–48”)[1]	
Overhead clearance (80” minimum)	
Alcoves for students in wheelchairs (24”x36” minimum [forward], 15”x60” minimum [side])	

INTELLECTUAL ACCESS	
Large-font signage	
Signage colors and contrast support low-vision	
Signage has graphic/image with corresponding text	
Talking signs	
Signs with Braille	
Signs with physical texture	
Information/reference cards to assist with self-selection and finding	

[1] *The lower end of the ranges drop as students get older to concur with the ADA-ABA guidelines (ADA-ABA Guidelines for Buildings and Facilities, 2004), that stipulate the reach ranges for children seated in wheelchairs (which also includes clear floor or ground space).*

Signage promoting literacy	
Signage promoting citizenship	
Signage that acts as “windows to the world” (maps, animal posters, etc.)	
Stimulating props (stuffed animals, puzzles, toys, etc.)	

COLLECTION	
Audio books	
Braille books	
Large-print books	
E-books	
Talking books	
Playaways	
Captioned videos	
Digital media	
Graphic novels	
Databases	
Digital organizers (ex., Inspiration/Kidspiration, Evernote, etc.)	
Award-winning books on display	
Books pertaining to students with disabilities on display	

TECHNOLOGY RESOURCES & ASSISTIVE TECHNOLOGIES	
Computers	
Laptops	
iPods/iTouch/MP3 players	
iPads/tablets	
Kindles/Nooks/E-readers	
Large-screen monitors	
Braille keyboard	
Trackball pointing devices (instead of mice)	
Scanners	
LCD projector	
JAWS software	
Text-to-speech software	
TTY/TTD (communications for hearing impaired)	
Dictation software	
Talking browser	
Optical scanners	
Additional browser plug-ins and add-ons	
Interactive whiteboard	

COLLABORATION	
Strong collaborative culture	
Almost none or no collaborative culture	
Collaborates w/ teachers other than Special Education	
Coordinates w/ teachers	
Coinstructs and coevaluates w/ teachers	
Pre-test and/or post-tests in collaborative process	
Results presented to administration	
Specifically collaborates for improved information-literacy education	
Specifically collaborates for improved access for special-needs learners	
Works with parents to improve learning for special-needs students	

THE SCENE [from the librarian's perspective]	
Scheduling supports ability to support target learners	
Administration is supportive	
Administration is hindering ability to support students	
Pull-out method is isolating	
School library is a welcoming place	
School is under-staffed	
Culture of inclusion at the school	
Technology [other than AT] is infused in learning and teaching	
Lack of funding makes it hard to adopt best practices	

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