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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

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 learner.

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

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).

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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 1

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.

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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

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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 intelleas9Pl aisabilities.4(r)3(nihzbn(vi)-2(u(s)-1(

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

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



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

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

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		

Table 6. Assistive and educational technologies at each school.

School	Assistive Technologies (AT)	Educational Technology (and Others)
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A

Kurzweil, Read & Write Gold

In computer lab: large-screen monitor,

trackball pointing device

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,

§ School Librarians as Ambassadors of Inclusive Information Access, BDCIT*-3 (IndspolD2Tc-2)(d)(g)-D(e)(ca)-1c(ol-g)(h)-f(m), 006(y)-20(-1

- 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

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.

Acknowledgments

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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 learning and inquiry for all students?

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

Appendix B: Observation Checklist

PHYSICAL ACCESS

Ramps (for height

COLLABORATION

Strong collaborative culture



