School Librarians of the 21st Century: Using Resources and Assistive Technologies to Support Students' Differences and Abilities

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SCHOOL LIBRARIANS OF THE 21ST CENTURY

USING RESOURCES AND ASSISTIVE TECHNOLOGIES TO SUPPORT STUDENTS’ DIFFERENCES AND ABILITIES

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“Hi, Mommy,” I said as I stood on my walker, made my way to her, and then wrapped my legs around her like a little monkey.

“Hi, sweet pea,” she said. “How was your very first day of kindergarten?”

“Oh, Mommy, I had the very best day ever. Today we went to the school library, and I met our librarian, Ms. Ramsey. And guess what, Mommy? Ms. Ramsey is so sweet, and she says we can come to the library and check out books as often as we want to. I want to go to the library every day.”

I vividly recall my very first experiences in the school library. It wasn't long after that I knew I wanted libraries to be my life's work. The library was such a peaceful, tranquil place to me—a place where happy days were made happier and challenging days easier. No matter the burdens of my heart, somehow opening the library door, finding just the right book, and cuddling in a soft, comfy chair made everything seem okay again. All of my worries seemed to be carried away by the gentle rustling of turning pages. My book journeys allowed me to discover both distant places and places within myself. Books gave me the gifts of learning and self-acceptance. A premature birth had left me with the need to use a walker for ambulatory purposes, and these same physical challenges allowed me to have a vivid imagination and a love for reading and learning.
HELPFUL HINTS FOR SELECTING AND EVALUATING ASSISTIVE TECHNOLOGIES

- What is the task at hand? What is the goal or objective the student will attempt to achieve?
- Will the technology increase the interest level of the typical student or a student with a similar learning style (e.g., a visual learner)?
- Will the technology serve as a distraction for the typical student?
- What are the concerns for students who are differently able in terms of being able to complete the lesson?
- Will the technology allow or enable the students who are differently able to participate in the lesson and/or related group work?
- How are the students going to share the available hardware and software? What types of licensing are needed?
- For students who are differently able, do they have technologies specified in their Individualized Education Plans (IEPs)? If so, can these technologies be brought with the student to the school library for instruction and activities?
- Who is going to assist the students with accessing technologies?
- What level of assistance do we expect to be required for typically able students? Differently able students?
- FOLLOW-UP: Did the technology benefit the learning process? What worked well? What would we do differently next time? Who can we consult for additional ideas?

To this day, after many years of working experience in libraries and a lifetime of patronage, nothing makes me happier than seeing the eyes of a precious child light up when he or she comes into the library. The advent of new technologies and changing literacies have modified the library scene a bit in recent years, but our mission to provide our children with the information, knowledge, and skills they need to become information-literate, productive, contributing citizens remains the same. Having a child come into the library—whether on her very first visit or one of many visits—means that we, as school librarians, have the incredible privilege—and responsibility—to make that child feel welcome and to support her learning process in every way we possibly can. Whether a child is officially labeled as being differently able (having one or more characteristics that society labels as a disability) or whether she is perceived as typically able, each of our students needs for us to be on the cutting edge of information resources and access. Moreover, our students need us to help them understand how their differences make them specially able. It is through this process that we also discover the child’s gifts and abilities, and can use her differences to help her develop the information literacy skills and multi-literacies necessary for lifelong learning.

21st-Century Learners, 21st-Century School Librarians

There is no question that children today come to school with many of the same opportunities and struggles as the children of previous generations. They also bring a milieu of intelligences and unique learning styles, many of which are defined by Howard Gardner’s Theory of Multiple Intelligences, highlighted in figure 1.

In addition to multiple intelligences, our students also experience new challenges brought about by increasing complexities in our social, economic, technological, and global landscape. Diversity—whether defined by culture, social values, ethnicity, language, or ability—also contributes new opportunities to the information landscape, in both the scope and types of information and information skills students need. Current figures from the National Center for Education Statistics indicate that approximately one in seven students have one or more characteristics that society defines as a disability (U.S. Dept. of Education 2008). Increasing recognition of diversity and aforementioned complexities require that we help students become multi-literate individuals who can

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1 Some readers may be familiar with accessibility- and disability-related terminology. The term “differently able” is a more recently accepted term used to denote any of a number of perceived physical, mental, emotional, or cognitive challenges. Recognizing the many abilities and the autonomy of those people society may label as having a disability, the author has elected to modify the terminology to read “differently able.”

2 For a list of learning activities that correspond with each of these intelligences, see Michael Rettig’s 2005 article “Using the Multiple Intelligences to Enhance Instruction for Young Children and Young Children with Disabilities” Early Childhood Education Journal 32, no. 4 (February), 255–59.
"interpret, use, and produce electronic, live, and paper texts that employ linguistic, visual, auditory, gestural, and spatial semiotic systems for social, cultural, political, civic, and economic purposes in socially and culturally diverse contexts" (Anstey and Bull 2006, 41). To help and support school librarians' and other educators' efforts to ensure that we are meeting students' learning needs and are helping them become multi-literate, the American Association of School Librarians published its Standards for the 21st-Century Learner:

"Learners use skills, resources, and tools to:

1. Inquire, think critically, and gain knowledge.
2. Draw conclusions, make informed decisions, apply knowledge to new situations, and create new knowledge.

3. Share knowledge and participate ethically and productively as members of our democratic society.
4. Pursue personal and aesthetic growth" (2007, 3).

These standards, in combination with the International Society for Technology in Education's National Educational Technology Standards and the accompanying Performance Indicators for Students establish

**HOWARD GARDNER'S THEORY OF MULTIPLE INTELLIGENCES**

Figure 1. Theory of Multiple Intelligences. Gardner, 1983.

**VERBAL/LINGUISTIC:** These individuals have a strong capacity to use and understand language, and they have effective communication skills. They learn best when presented with opportunities to communicate with others—to hear the new information being presented to them, and to ask and answer questions.

**EXISTENTIAL:** These individuals "think beyond the self" and ponder questions about life, death, and existence in general.

**MUSICAL/RHYTHMIC:** These individuals have the capacity to hear, recognize, and manipulate musical patterns.

**NATURALIST:** These individuals are highly sensitive to the world around them and learn best when they are presented with opportunities to interact with plants, animals, and the environment.

**INTERPERSONAL:** These individuals understand others well and learn best when they are presented with opportunities to interact with the people around them.

**LOGICAL/MATHEMATICAL:** These individuals have strong analytical skills, and have abilities to understand underlying principles of causal systems and to manipulate numbers.

**INTRAPERSONAL:** These individuals have a very strong sense of self, and an ability to understand their own strengths, abilities, weaknesses, and areas of opportunity.

**VISUAL/SPATIAL:** These individuals have abilities to create representations of the physical/spatial world in their minds. They learn best when presented with opportunities to see new information and then present it internally in the mind.

**BODILY/KINESTHETIC:** These individuals have the capacity to use their bodies, or parts of their bodies, to interact with the learning process. They learn best when presented with opportunities to use their bodies to create things or to solve problems.
LOW-COST/NO-COST SOLUTIONS FOR UNIVERSAL DESIGN AND ACCESSIBILITY

- **Ask the student** what he or she needs, as the student is the "real expert" on what helps him or her best.

- **Seek input from a team** regarding accessibility solutions, collection development, technology purchases, and website and database accessibility. The team should include students, teachers, parents, reading specialists (and other special educators), vendors, and disability-related organizations. Community members with related life experiences and/or professional experiences may also be important contributors, as well as public librarians and one's state library.

- **Provide ramps and automatic door entrances** or prop doors open. Automatic doors activated by a push-button are an economical alternative to fully automatic doors, and may be installed easily on both exterior and interior doors, including restroom doors. Levered door handles are a more accessible alternative to traditional knobs if automatic doors are not feasible.

- **Widen stacks and spaces between furnishings** for easier clearance and access. (A good rule of thumb is to use a yardstick to measure for the appropriate distances between stacks or pieces of furniture. Remove unnecessary barriers, such as book carts and shelving stools, that may inhibit access throughout a space.

- **Offer shelving that allows students to reach materials safely from a seated position.**

- **Offer reference and circulation desks** that allow librarians to see and assist students and that allow seated students to access the desks.

- **Offer adjustable-height tables** whenever and wherever possible.

- **Have beanbags and cushions available** for comfortable seating or additional support for a student during a group activity.

- **Offer materials in a variety of formats**, including large print, books on CD, digital materials, graphic novels, captioned videos, Playaways, etc.

- **Various keyboards, computer monitors, pointing devices, and the like are available.** When purchasing for the library, consider purchasing a variety of options and alternatives rather than having every computer equipped in exactly the same ways. Having a variety allows everyone to explore options and see what works best for him or her. Alternatively, if you have a specific child or group of children in mind, explore technology equipment loan programs offered by many disability groups. Often, loan periods may last a few weeks and allow for trial and error with various products before the school makes a purchase.

A companion piece "Assistive Technology Resources" on page 70 in this issue offers an informative overview of assistive technology resources, tools, and vendors for all of us to explore and employ as needed. Perhaps the single most important factor in implementing any form of assistive technology, however, is the idea that technologies should be evaluated and selected so that they can best meet the individual needs of our students. Included within this article is a "checklist" of sorts, "Helpful Hints for Selecting and Evaluating Assistive Technologies," that we may use in the process of deciding which resources will best suit our students. Finally, because "official" assistive technologies may not always be an option for all students or schools, the sidebar "Low-Cost/No-Cost Solutions for Universal Design and Accessibility" offers a few up-and-coming resources and low- or no-cost alternatives.
Conclusion
All students, whether they are perceived as being typically able or differently able, have special needs—and special abilities. It is critical that we see all children as children first and help them find their abilities. As I read once, we must help children realize that they are just like everyone else...they are different. Whether through the use of assistive technologies, or through the low-cost or no-cost solutions highlighted in this article, it is my heartfelt hope that we continue learning and that we help our students become students who "had the best day ever" because they visited the library. Let us help them become students who want to see us every day. Ultimately, we'll all be better for it. Let's shoot for the moon and land among the stars.

Clayton A. Copeland is currently a PhD candidate at the University of South Carolina's School of Library and Information Science. First inspired by her elementary school librarian, the author's current research and research interests involve equity of access to information, library services and accessibility for populations who are diverse and differently able, library services to children and youth, and information-seeking behaviors of children and youth. These research interests are informed by her personal life experiences as someone who is differently able and who uses a walker for ambulatory purposes, as well as by her experiences as an LIS professional.

Works Cited:


