Making Your School Library Essential: An Advocacy Guide for Teacher-Librarians

By Carol A. Gordon

School librarianship has come a long way during the first century of its existence, but like all dimensions of living, learning, and working in the 21st century, school libraries are facing unprecedented challenges. This advocacy guide presents those challenges in the context of educating youth for a future we struggle to define. It develops an argument for recognising the potential of school libraries to integrate print with digital literacy, basic competencies with critical thinking, and content mastery with content creation. The argument is divided into nine sections to address the nine beliefs that can change the culture of a school to integrate school libraries into the fabric of educating youth for the 21st century.

The purpose of this guide is to communicate a vision for school libraries that can motivate and inspire principals, classroom teachers, parents, and educational policymakers to design and support learning experiences and infrastructures in their schools that move education from a monolithic 20th century industrial model that aims for equality to a multi-faceted, personalised 21st century model which aims for equity in order to truly meet the needs of all children.

Implicit in the vision is the emerging collaborative role of the principal, teacher-librarian, and classroom teacher as a powerful triad that defines educational reform to suit the particular needs of members of their school communities and their communities-at-large. This advocacy guide calls for information-based inquiry across disciplines, supported by a partnership of principals, teacher-librarians, teachers, and technology specialists. The vision speaks to local educators, state departments of education, policymakers, and researchers in education and library/information science. The guide is meant to facilitate conversations and collaborations that empower educators to communicate and collaborate with each other as they share expertise. In striving for such a collaborative school culture, teacher-librarians are strengthening the vision by focusing on teaching and learning strategies in their schools.

The guide is meant to facilitate conversations and collaborations that empower educators . . .

The vision, presented through questions asked and solutions offered, is not new to teacher-librarians. The best practices described are research-based, ensuring that they take into account the cognitive, affective, and behavioral dimensions of learning. The guide is an advocacy tool for sharing the vision with educators by presenting the most powerful arguments for integrating the role of teacher-librarians to increase the impact of school libraries on educating youth for the 21st century.

The information in the guide, organised by nine beliefs, are foundational to building a culture of teaching and learning that is more like a library rather than a classroom culture. This information, all of which is research-based, will be more effective when it is served out in small portions rather than as a big meal. While you may want to share the entire guide at some point, it is recommended that you share the ideas in the guide in small portions over time. At the end of this article there are suggestions and resources that identify opportunities for communicating beliefs and strategies about teaching and learning that can instill a vision for a common technical culture goes beyond the wall of the library to include principals, teachers, parents, and policymakers.

Why are School Libraries Essential?

> *For the first time in history, our job as educators is to prepare our children for a future we cannot clearly describe*. (Warlick, 2007)

School libraries are typically the best-resourced classrooms in schools. As such, they are working models for aligning educational practice with the needs of 21st century learner. However, school libraries are continuously challenged to keep pace with technological changes in information and communication. The implications these changes have on teaching and learning are rooted in the following beliefs.:

1. Learners learn best when they can follow their interests and passions.
2. Learning is continuous, personal, and contextual.
3. Learners need personalised intervention when they can no longer move forward in their learning.
4. Media or digital literacy is literacy, and literacy is the foundation for all learning.
5. Learners need multiple sources, in print and digital formats, to stimulate their interest, curiosity, and comprehension.
6. Information skills are reading and thinking skills.
7. Active, hands-on learning in inquiry contexts is the most effective teaching approach for developing deep understanding and resilient, sustainable knowledge.
8. Learning is collaborative and social. Classroom teachers need continuous, just-enough-just-in-time support for teaching and assessing information-based inquiry learning, and print and digital literacy.
9. Equity, not equality, ensures that all children receive the help they need to succeed.

This paper aims to demonstrate how teacher-librarians have the expertise in information processing, literacy, and digital technology to create a shared, common technical culture in our schools. School libraries are transformed by the digital age and, in turn, teacher-librarians can transform how educators prepare our youth to live, play, and work in digital environments.

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How do we prepare youth for a future we cannot describe, or even imagine?

Who are the Learners we are Educating for the 21st century?

> *The children we teach are fundamentally different from those of a generation ago. They belong to a youth culture that reads, learns, socialises and views the world through a digital lens. Ninety-four per cent of all teens aged 12 through 17 have been online and 80 per cent of online teens are users of social media sites* (Lenhart, 2012).

> *Unless the educational paradigms used in our schools are changed to match the non-academic world of the Millennial student, I don't foresee an increase in students' abilities to analyse and use critical thinking* (Lusk, 2012).

A three-year ethnographic study examined young people's participation in the new media ecology. The study identifies two elements that distinguish digital youth:

1. *The development of extended friendships and interests put today's youth in constant contact with each other through texting and messaging, usually on mobile phones. They are continuously 'on' as they maintain and negotiate relationships through private and public electronic venues. They almost always 'hang out' online with people they know offline. A smaller number of youth use electronic media to explore their specialised interests and find information that goes beyond traditional classroom schooling. They connect with their peers in online groups to pursue these interests through online gaming, creative writing, video editing, or content creation. They find new peers in interest-driven networks outside their local communities and they have opportunities to publicise and distribute their work and to gain visibility and build reputation on YouTube, for example.*

2. *The emergence of self-directed, peer-based learning enables digital youth to exhibit new forms of expression and rules of social behavior. They acquire technical and media literacy by 'messing around' as they build media skills through trial and error. They like to share their creations and receive feedback from online peers. The immediacy and breadth of information in their digital world lowers barriers to self-directed learning. Others 'geek out' and immerse themselves in a topic or talent. 'Geeking' is highly social as members of specialised knowledge groups engage with each other across state and national borders. Digital youth are motivated by the possibility of improving their craft and gaining reputation among expert peers. However, adults do not automatically enjoy the status of 'expert' when they participate; 'geeking out' erases traditional status and authority. New media allow a freedom and autonomy that motivate youth to learn from peers, rather than from adults. They are self-directed, for the most part and their outcomes emerge from exploration, unlike classroom learning that is oriented toward predefined goals* (Ito, M., et al. 2009).

The changes in behaviour and cognition in the future depend heavily upon how we adapt our pre-school-through-college curricula to encompass new techniques of learning and teaching. If we simply continue to use technologies to enhance the current structure and functioning of education, our young people will use the technologies to entertain themselves and engage in online socialising and shopping. We will have missed enormous opportunities to produce independent life-long learners (Cline, 2012, 20).

What does an educational system that meets the needs of today's youth look like?

Why is 21st Century Education Problematic?

Just as success in the Industrial Age depended on a school system that taught us how to read and write, add and subtract, our success in the Information Age depends on a school system that teaches us how to manage information, utilise technologies, innovate, and above all – think (Barrett, 2012).

The revolution in information, communication, and technology continues to present challenges to educating our youth in this century. A researcher in applied sociology at an information technology company in the United States concludes:

Students' attention is increasingly being pulled into myriad directions – and arguably most of these 'distractions' are exciting, fun, and can be used to educate. However, despite schools' best efforts to integrate technological materials and devices, they're failing to redesign the education system to accommodate a new generation of learners. Instead, they are creating drones who succeed purely on their ability to sit still for long periods of time, not use the technological devices available to them, and restrict their studying and research to strict parameters. Students are often unable to adapt when they enter college classrooms requiring them to apply processes and information, problem-solve, or think critically. They barely know how to use alternative words or phrases to complete a Google search. Since they've been taught that e-technology has no place in the classroom, they haven't learned proper texting/emailing/social networking etiquette, or, most importantly, how to use these resources to their advantage (Lusk, 2012, p. 21).

Teacher preparation programs in higher education are trying to keep up with the digital age by adjusting required courses and, in some cases, changes in standards for teachers and teacher-librarians.

As machines that 'think' become prevalent and information access becomes even more universal than today, we will need to re-envision our models of education and learning. The possibility of exploring deep questions will be enhanced, but it will be our culture, not our technology, that determines whether or not we have the will to use the tools in meaningful ways to enhance humanity (Franke, 2012).

Students' attention is increasingly being pulled into myriad directions . . .

Traditional school culture does not support a common technical culture relevant to 21st century teaching. School schedules do not accommodate blocks of time needed to co-teach sustained information-based inquiry. Learners confined to textbooks are not exposed to diverse points of view as they try to digest copious facts. Learners need continuous access to digital devices for information searching and content creation. They need space to explore, experiment, and collaborate with peers. Most importantly, learners need to distinguish fact from mis-information and 'fake news' to discover solutions to complex problems, to have opportunities to make mistakes and revise, and to have access to trained information and technology specialists.

Why are school libraries positioned to change the culture of schooling?

What is the Status of School Libraries?

Every child deserves a school library (Gaver, 1961).

School libraries developed from converted classrooms filled with curriculum materials to multi-media learning centres. As these libraries evolved to support teaching and learning, a strong research tradition developed. More than 60 impact studies from the first in New Jersey (Gaver, 1961) to the most recent in Pennsylvania (Lance & Katchel, 2013) consistently report that students in schools with centralised libraries managed by qualified librarians scored higher in standardised tests than students without centralised libraries or qualified librarians.

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School libraries also have a strong political tradition. In the United States the American Library Association's position:

. . . urges Congress to maximise K-12 students' academic achievement by providing dedicated funding in the Every Student Succeeds Act of 2015*, for "effective school library programs". An effective school library program: is staffed by a state-certified school librarian; has up-to-date books, materials, equipment and technology; includes regular collaboration between classroom teachers and school librarians to assist with the development and implementation of the curriculum and; supports the development of digital literacy skills* (American Library Association, 2016).

Despite strong advocacy on state and national levels, school libraries in the U.S. continue to experience cuts and closings.

While 90 per cent of public schools report having a school library . . . many states continued to reduce the number of school librarians . . . and library technology coordinators. . . . In some cases school librarians are being replaced (sic) by clerks, parents, volunteers and classroom libraries (Rosa, 2013).

This is not the case in other countries. Ministers of Education in Australia, New Zealand, Canada, Denmark, Sweden, Ghana, Trinidad and Tobago, Jamaica, The Bahamas, Portugal, and Columbia – to name a few – strongly support school libraries. In independent private schools in the U.S. and abroad school libraries enjoy a high profile, generous funding, and administrative support. While libraries in U.S. public schools are experiencing cuts and closures, school libraries are a thriving international phenomenon.

The International Federation of Library Associations (IFLA) and UNESCO authored *The School Library Manifesto* (1999; 2015), a seminal international document that views school libraries as providers of information, ideas and the life-long learning skills fundamental to living and working in today's information- and knowledge-based society. The *IFLA Trend Report*, 2013 acknowledges the value of information literacy skills and the expansion of digital skills.

School libraries worldwide are viewed as an essential component of a 21st century education. Boston Public Schools agree. "In the early 1970s in Boston, every school offered students a library . . . Since then though student learning needs have changed . . ." (BPS Library Services, 2016, p. 11) to become more classroom-centric. As a result, the BPS school library program "is comprised of troubling inequities . . . substandard number of books per students, consideration of staffing, hours open, lack of cohesive K-12 plan for instruction and availability to reference collection size or special collections (BPS Library Services, 2016, p. 11). These conditions have led to inequitable access to teaching and learning opportunities.

> Of the 126 Boston Public Schools (BPS) (FY16) 53 offer a library, some only open part-time. Of the 53 schools with libraries, 25 are elementary schools with only 4.3 certified school library teachers; only one middle school offers a full time library paraprofessional; and 19 of the 21 high schools have certified school library teachers (BPS Library Services, 2016, p. 11).

A strategic plan addresses these inequities:

> By 2021, BPS Library Services program will be resourced to provide certified school library teachers; partner with institutions of higher education to recruit diverse library team members; build culturally and disciplinary empowered library collection in 21st century library/learning commons spaces and personalised learning; and facilitate professional development and program planning with school leaders and teachers for collaborative curriculum design and co-teaching (BPS Library Services, 2016, p. 31).

The strategic five-year Plan established goals for Program Management and Teaching and Learning in Boston's school libraries. The strategic priorities for Program Management include:

> Equitable and Sustainable Budget Allocation; Equitable Access to Library/Learning; Equitable Access to Library Teachers; Collection Development School/District Wide Resource Asset Management; and Cross Departmental Print and Digital Asset Management. The strategic priorities for Teaching and Learning in the school library include: Develop an integrated inquiry based/information literacy learning program for students and staff; Resource and information access and delivery; Align and integrate with service providers; Engage students and families and community service organisations as advocates and partners for equity, access, and results for all students (BPS Library Services, 2016).

> If the Library Services Strategic Plan is realised each student will learn with equitable access to a central learning commons and library that is the heart of their school (BPS Library Services, 2016, p. 31). In addition, 'The coherence that BPS Library Services Strategic Plan brings to school leaders, school community members, partners and civic leaders will position the (Library Services) department at the heart of the district (BPS Library Services, 2016, p. 31).

This change is part of a 100-Day Plan launched by school superintendent, Dr. Tommy Chang. "We must build a 'Culture of We' that is embraced by students, staff, families and community" (Chang, 2015). Other values that are central to the plan include:

All youth can and must achieve at high levels; We innovate and transform teaching and learning to inspire excellence; Those closest to students must be empowered and held accountable for making the most critical decisions that lead to student achievement and; Every child should have access to a high quality school of their choice close to home (Chang, 2015).

Such a plan calls for an ESSENTIAL SCHOOL LIBRARY that has the capacity to use its resources and human capital to transform an educational system.

What does an ESSENTIAL SCHOOL LIBRARY look like?

Being THE ESSENTIAL SCHOOL LIBRARY

> I knew that I wanted the library to be a campfire space where students could gather, and a collaborative space where they could work together in small groups, a transparent space where learning in the school could be seen through the windows, a more barrier-free space in terms of student use, and an innovative space where the design would reflect the innovations that are going on inside our campus (Foote, 2015).

THE ESSSENTIAL SCHOOL LIBRARY has the following outcomes:

- Curious learners who participate in information-based inquiry;
- Literate learners who use information systems and read multimedia with comprehension;
- Collaborative learners who demonstrate information-technology skills and content knowledge; and
- Equitable school library experiences for ALL learners that meet their personalised needs.

Central to the infrastructure of THE ESSENTIAL SCHOOL LIBRARY is the learner and learning outcomes. This focus generates a new lexicon for school library functions (fig. 1).
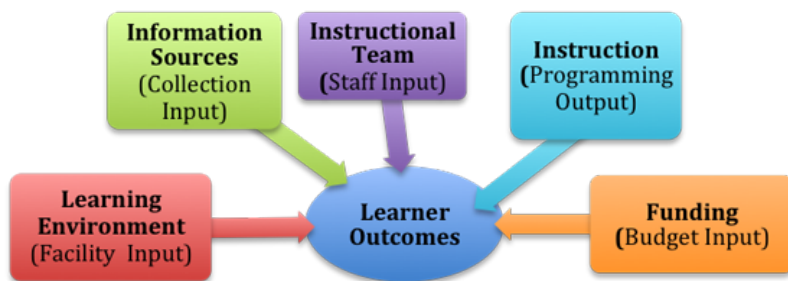
*Figure 1: A new lexicon for the Infrastructure of THE ESSENTIAL SCHOOL LIBRARY
(Gordon, 2016)*

A **library facility** is a physical and virtual **learning environment**. The library supports student content creation through makerspaces and virtual collaborative tools such as *Scratch*, a coding language, and *Google Hang-outs*. Learners connect with personal interests, create and share coded stories and animations, and 'geek-out' as they gain competencies in media, visual, digital, critical, cultural, and multimedia literacies.

The **library collection** goes beyond print and analog materials to include **digital information sources**. In 21st century libraries, librarians are the curator of the collection as they select, create, purchase, and organise multimedia materials for easy retrieval.

Staffing includes professionals, paraprofessionals and volunteers who comprise an instructional team that provides help, at the level appropriate to their expertise, to library users. This approach ensures the delivery of personalised learning at the point of need, particularly for digital citizenship (e.g., digital ethics, safety, security, rights and responsibilities). School librarians provide training and support for their instructional team to embrace new and emerging technologies, information sources, and teaching strategies. The expansion of the school librarian's professional development role to all members of the school community is seminal to changing school culture.

Allocated **school library budgets** are only part of the larger picture of **funding**. School librarians pursue external funding sources to supplement fixed budgets, including grants, awards, and donations. In addition, school librarians, principals and school boards should view fund development, rather than fund-raising, as building the capacity of the school library to provide the funding and resources to realise the vision and mission of the school library's strategic plan.

What kind of teaching is supported by this kind of ESSENTIAL SCHOOL LIBRARY infrastructure?

Being Curious in the Digital Age

The Information Age brings advantages such as increased access to information, but also brings challenges such as information overload, misinformation, and navigating complex information environments. Digital information is not pre-selected, leveled, labeled, or packaged. In the context of an information task learners need information skills to select, evaluate and use information to build new knowledge from information. Information-based inquiry is a teaching method that uses four teaching tools as shown in fig. 2.

Digital information is not pre-selected, leveled, labeled, or packaged.

Figure 2: Four Teaching Tools of Information-based Inquiry

The first tool, the Information Search Process (ISP), known as Guided Inquiry, is an indispensable tool that alerts educators to the learner's need for help or intervention. In school libraries information processing includes the mechanical skills of searching, selecting, and retrieving information. For example, in the context of a learning task, learners are expected to use information to think critically to solve a problem. This entails a hierarchy of critical thinking skills as defined by Bloom's Taxonomy (1956) and revised by Anderson, et al. (2001). Critical thinking includes remembering, understanding, applying, analyzing, and creating. The ISP, a research-based model that predicts the thoughts, feelings, and actions of information seekers, supports information skills as thinking skills (Kuhlthau 1983). Shown in fig. 3, the ISP is a roadmap for understanding how thoughts, feelings, and actions change as learners find and use new information.

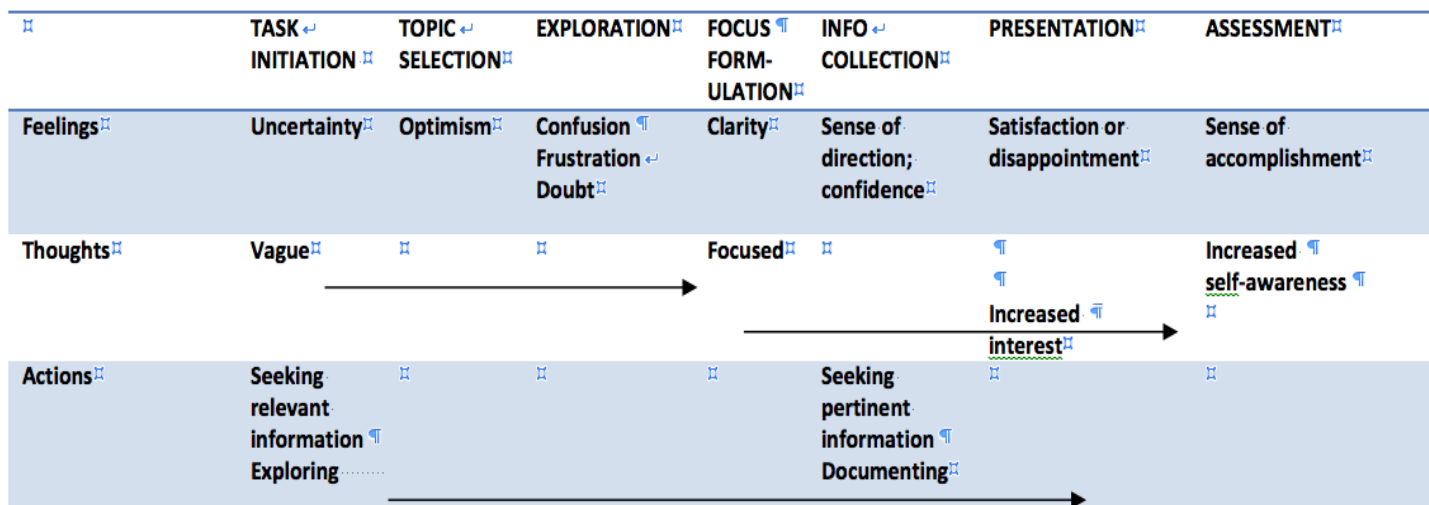|	TASK INITIATION	TOPIC SELECTION	EXPLORATION	FOCUS FORM-ULATION	INFO COLLECTION	PRESENTATION	ASSESSMENT
Feelings	Uncertainty	Optimism	Confusion Frustration Doubt	Clarity	Sense of direction; confidence	Satisfaction or disappointment	Sense of accomplishment
Thoughts	Vague			Focused		Increased interest	Increased self-awareness
Actions	Seeking relevant information Exploring				Seeking pertinent information Documenting		

Figure 3: Kuhlthau's Information Search Process

The ISP is critical for developing independent, self-directed learners because it helps educators identify zones of intervention based on their observation of the feelings, thoughts, and actions of learners in each of the ISP stages. For example, some users may not have prior knowledge needed for TASK INITIATION (fig. 3) when they confront the learning task. Interventions that provide images, descriptions, and explanations may be needed to orient them to the task. Intervention is conceived as Guided Inquiry when a collaborative team of school librarian and classroom teacher(s) provides help critical for young people to move along a continuum of inquiry from novices to experts, or independent learners (Kulthau, Maniotes & Caspari, 2012). The other ISP stages also address the user's feelings, thoughts and actions, as shown in fig. 3, and require the appropriate interventions.

The second tool, Authentic Learning, enables school librarians and teachers to gather evidence from learners' work to assess their progress, or lack of it. It is also a tool of Guided Inquiry, or ISP, that shapes interventions and gives structure to the collection of evidence that informs teaching (Gordon, 2009). Formative, ongoing assessment, as opposed to graded summative assessment takes place continuously during the learning. For example, learners may create a mind map that represents their prior knowledge of a topic. Educators use the student-made mind maps to select videos or activities that provide background information in the ISP TASK INITIATION (fig. 3). Learners are given an opportunity to revise their mind maps (e.g., correct misconceptions) without penalty.

An authentic learning task asks learners to:

1. Create a 'real life' role (e.g., an archeologist finds and interprets artifacts);
2. Work individually and in groups;
3. Have choice of topics and print or digital formats for their project outcomes;
4. Receive feedback from formative assessments to help them revise;
5. Participate in peer review to get feedback from other learners;
6. Publish or exhibit their work;
7. Evaluate the inquiry unit using a survey or class discussion provided by the librarian and teacher(s).

The third tool, digital technology, generates digital objects that can be used as interventions in Guided Inquiry, specifically in every ISP stage. For example, WordSift, a website that provides images as well as definitions of terms, helps learners visualise people, places, and things. Digital mind maps are visual tools for INFORMATION COLLECTION (fig. 3) in lieu of linear note taking. At the PRESENTATION ISP stage (fig. 3) learners may choose to create digital videos or podcasts, for example, to express what they learned as an outcome instead of writing a paper.

Lastly, evidence-based practice is a tool that uses three sources of evidence: 1) Evidence *in* practice, the practitioner's experience and ability to make professional judgments; 2) Evidence *of* practice, evidence embedded in student work and learning outcomes; 3) Evidence *for* practice, evidence that resides in the research literature of school librarianship and education that identifies best practices (Todd, 2008).

Action research is a tool of evidence-based practice that helps teachers and learners revise their teaching or their learning. Action researchers can also use surveys, interviews, or focus groups, for example, to gather evidence of student progress. Action research offers learners and teachers opportunities to reflect on their work and revise it to improve outcomes. It supports digital age teaching as information skills go beyond searching for and finding information to include reading and thinking competencies in print and digital media.

Action research offers learners and teachers opportunities to reflect . . .

What does it mean to be literate in the digital age?

Being Literate in the Digital Age

Transliteracy is ". . . the ability to read, write and interact across a range of platforms, tools and media from signing and orality through handwriting, print, TV, radio and film, to digital social networks" (Thomas, 2005).

The teacher-librarian plays a multi-dimensional role in literacy by helping learners to be trans-literate across print and digital texts and by addressing information literacy as well as reading literacy.

Information Literacy

Information literacy, defined as searching and retrieving information, dominated the school librarian's teaching role until the concept evolved to include information use. Critical thinking (e.g., applying, analysing, evaluating, and creating) are fundamental to the learner's ability to generate meaningful learning outcomes that demonstrate what they know and what they can do with their new knowledge.

The teacher-librarian plays a multi-dimensional role in literacy . . .

A broader interpretation of information literacy (American Association of School Librarians, 2007) suggests the question of disciplinary literacy. What does it mean to think like an historian? A scientist? When learners engage in inquiry grounded in a discipline, educators can adjust the learning task to address the kinds of questions scientists and historians ask, the criteria for information sources specific to a discipline, and the unique methods discipline's use to find answers to their questions. This kind of inquiry approach may also involve data literacy as learners gain skills in interpreting scientific quantitative data and qualitative historical data. In the Information Age disciplinary and data literacies are within the grasp of young learners as they are increasingly incorporated in state K-12 content area standards.

Print and Digital Literacy

The school librarian's traditional role in reading is restricted to reading motivation through book talks, readers' advisory, and book displays. When research-based reading comprehension strategies (Harvey & Goudvis, 2007) became best practice for English Language Arts teachers and information literacy skills grew to include thinking skills the question of improving reading comprehension surfaced in the library.

The school library is the only place in the school where all the disciplines, in print and digital texts, come together to support diverse learner interests, abilities, and preferences. Research and our own experience indicate that reading in print and digital texts is different. Rowlands et al. (2008) report that young information searchers in digital environments skim, scan and squirrel, or hoard information, but do not read it. New 'forms' of reading are emerging, such as 'power browsing' horizontally through titles, content pages and abstracts (Rowlands et al., 2008). Comprehension is better in print environments where readers move in a linear manner across the page and from top to bottom. This is important because sustained, deep reading is critical to improving comprehension (Wigfield & Guthrie, 1997).

. . . reading in print and digital texts is different.

While educators have research-based reading strategies that improve comprehension of reading print, we do not have the research to guide our improvement of reading in digital spaces. In addition, digital materials in the library are not vetted as print resources are. Consequently 'good' readers may confront comprehension difficulties. Figure 4 provides examples of reading strategies that coincide with ISP stages and the print and digital tools that simultaneously heighten awareness of reading print and digital text while facilitating inquiry.

ISP Stage	Reading Strategy	Print Interventions	Digital Interventions
Task Initiation	Activate prior knowledge Visualize	K-W-L Chart* Visuals & Reflection Sheet *K-W-L charts help students apply the questions: What do I KNOW? What do I WANT to learn? What have I LEARNED?	Wordsift Digital K-W-L
Exploration	Ask questions 'I wonder…?' 'What if…?'	Brainstorming	Blogging Twitter
Topic Selection	Distinguish between main/supporting ideas	Subject search in a subscription database	Wordle
Focus Formulation	Decide what's important Make connections Text-to-self Text-to-world Text-to-text	Relate focus to personal interests, family issues Making connections Customized K-W-L chart that helps students make connections between what they know and new text.	Social networking tools Websites relevant to the developing focus
Information Collection	Summarize Synthesize Make predictions	Graphic organizers Concept mapping Double-entry journal	Inspiration Kidspiration
Presentation	Make inferences Draw conclusions	Peer Review: Praise, Question, Polish	Wiki

Figure 4: ISP Stages and Reading for Comprehension Strategies

The reading strategies listed in column 2 of fig. 4 are compatible with the ISP method and can be incorporated into information-based inquiry (Gordon 2010). For example, **Wordsift** incorporates a '**wordle**' or graphical representation of a body of text created by displaying, in varying sizes, the words most frequently occurring in the text. The **Wordle** is accompanied by images that relate to the prominent vocabulary of the text, serving to activate prior

knowledge and build background knowledge. In the parlance of Guided Inquiry, the Wordsift is an intervention that facilitates the Information Search Process.

Why is collaboration critical in supporting teaching in THE ESSENTIAL SCHOOL LIBRARY?

Being Collaborative in the Digital Age

. . . School librarians . . . work collaboratively with teachers so that . . . students achieve higher levels of literacy, reading, learning, problem-solving and information and communication technology skills (IFLA & UNESCO, 1999).

It is important for educators to collaborate in an age when no one individual has all the expertise needed to implement 21st century teaching methods. The school library can be the hub for collaboration since it has the infrastructure for supporting information-based inquiry. The work of teacher-librarians is enriched when they collaborate with teachers who are content area knowledge specialists. 21st century skills are most effectively taught when integrated with academic curricula, rather than by an isolated approach. The learning task, derived from learning standards and school curriculum, is embedded in the academic content students need to learn. An integrated approach of content and skills renders the learning task more meaningful and relevant to learners. When teacher-librarians and teachers collaborate, they grow professionally by learning from each other as they model collaboration for their students.

Collaboration among students is important because learning is social. When learners talk, plan, and create together, they also learn from each other. This mode of learning is second nature to digital youth who are growing up with social media. Collaborative learning also prepares learners for an increasingly collaborative workforce.

When teacher-librarians and teachers collaborate, they grow professionally by learning from each other . . .

The teacher-librarian needs to have a strong collaboration with school administrators who can support innovative teaching in and through the school library. As the instructional leader in the school, the principal can help the school library become a learning centre through crucial administrative decisions about scheduling, staffing, and funding. Collaboration with the principal is critical to the teacher-librarian who develops his or her role as a 'teacher-of-teachers' by delivering just-enough-just-in-time support.

The teacher-librarian also collaborates with parents who may volunteer to serve as resource people. The possibilities are endless for school librarians to reach into the community to collaborate with the public library, local businesses, science organisations, higher education, other schools, and city government to build a strong library program that is viewed as part of the community.

An important dimension of collaboration is assessment. Collaborative evaluation works with students, teachers, administrators, and community. There is a great deal of benefit in peer review as well as self-evaluation to empower all members of the school community to be open to doing things better next time. This adds the dimension of continuous improvement to school culture.

When all members of the school community become information and technology literate, school culture changes.

New technologies require staff to update their digital skills to support instruction in digital citizenship, literacy, and ethics, as well as online safety and security, and legal rights and responsibilities (IFLA/UNESCO, 1999). When all members of the school community become information and technology literate, school culture changes.

How can school libraries ensure that every child has opportunities to learn 21st century skills?

Being Fair and Equitable in the Digital Age

Digital equity involves more than access to a device and connectivity to the Internet. It also involves access to meaningful, high quality culturally relevant content in local languages and educators who know how to use digital tools and resources (Resta & Laferrière, 2013).

A shift in attention from equality to equity is foundational to educational reform that ensures all children get the support they need to succeed. Equality treats everyone the same but that is not enough for children of poverty whose socioeconomic status puts them at a disadvantage when they enter school. Equity, on the other hand, gives everyone what they need to be successful and has already been legally acknowledged for special needs students through legislation. If a learner is unprepared to reach an educational standard, no amount of grade-level teaching can be successful. Resta & Laferrière (2013) define the issue of access as follows:

If there is one ICT (Information, Communication and Technology) impact that policymakers and educational researchers are looking for, it is learning outcomes. ... the issue of access must be addressed in the following five different areas ...

1. *Access to hardware, software and connectivity to the internet.*
2. *Access to meaningful, high quality, culturally relevant content in local languages.*
3. *Access to creating, sharing, and exchanging digital content.*
4. *Access to educators who know how to use digital tools and resources.*
5. *Access to high-quality research on the application of digital technologies to enhance learning* (Resta & Laferrière, 2013, p. 3).

These digital equity dimensions are taught in our school libraries because equity is a traditional library value. For example, in response to the passage of the *Every Student Succeeds Act*, the American Association of School Librarians (2016) drafted a position paper, *Definition for an Effective School Library Program*. The paper builds on the wording from *Strengthening Kids' Interest in Learning and Libraries* (SKILLS) to ensure that all students have equitable access to school librarians and effective school library programs.

. . . equity is a traditional library value.

On the international level *The School Library Manifesto* (IFLA/UNESCO, 1999) advocates for equity of access to school libraries and information education that cuts across socioeconomic, gender, and cultural divides. On the local level, equity begins with an adequately resourced school library, managed by a trained, certified school librarian, and driven by an adequately resourced strategic plan to deliver library instruction and support to all teachers in all classrooms for all children. There also is provision for special services in information-based inquiry, technology integration, and literacy development to disadvantaged children.

The Pew Research Center (2016) reports that 84 percent of American adults have internet access. However, college educated adults are more likely than those who do not have high school diplomas to use the internet. Class differences in internet use are also indicated by income: Those who live in

households earning more than $75,000 are more likely to be internet users than those living in households earning less than $30,000. Racial and ethnic differences indicate African-Americans and Hispanics are less likely than whites or English-speaking Asian-Americans to be internet users, but the gaps are narrowing. Today 78 per cent of blacks and 81 per cent of Hispanics use the internet compared with 85 per cent of whites and 97 per cent of English-speaking Asian Americans. Community differences show those who live in rural areas are less likely than those who live in the suburbs and urban areas to use the internet. Rural dwellers use the internet at the rate of 78 per cent.

Clearly, a digital divide along differences in class, race and ethnic differences still exists. Just as importantly, there is disparity among schools with school libraries and those without them. There is strong consensus among teachers that access to digital environments is critical for learning in today's world (Purcell, et. al., 2013). However, schools take an additive approach, focusing on the provision of bandwidth, connectivity, and digital devices. Federal e-rate programs and the private sector provide funding and discounts for telecommunications in schools to attempt to level the playing field for disadvantaged youth. Yet, educators are not seeing benefits to students commensurate with a significant financial investment to stay on the cutting edge of an ever-changing technological landscape.

Our youth need a different kind of education beyond the provision of new technology. Access to hardware is not enough. Learners need high tech learning environments, multimedia information sources, regular and systematic instruction, help at the point of need through adequate staffing, and sufficient funding to support 21st century necessities. They need ESSENTIAL SCHOOL LIBRARIES.

Equity is a library value that drives all dimensions of library instruction and service. The school library has the potential to be the epicentre for equity in schools by changing the culture of schooling through the provision of resources and training in information-based inquiry, technology integration, and literacy development for all learners. The personalisation of learning can occur when school schedules are more flexible, school libraries are more accessible, educators are trained to collaborate with school librarians, and an adequate technology infrastructure can deliver resources and training to every corner of the school. When all classrooms have electronic 24-7 access to THE ESSENTIAL SCHOOL LIBRARY all children can experience access to resources and help. This can happen when the school librarian and classroom teacher collaborate using the ISP and blended teaching that takes place in the classroom, the physical library, and on the library website (Stubeck, 2015). Such a model enables a spiraling, rather than parallel model of collaboration whereby information/technology skills and academic content are taught in the classroom and school library.

So, how does THE ESSENTIAL SCHOOL LIBRARY fit into schooling for the future?

The ESSENTIAL SCHOOL LIBRARY and the School of the Future

ESSENTIAL SCHOOL LIBRARIES + Learner-Centered Teaching + Information-based Inquiry = A Sustainable Future for School Libraries

This paper has outlined the critical elements of a school library concept that reaches into the future of American education. The beliefs are foundational to THE ESSENTIAL SCHOOL LIBRARY engaged in school reform. These beliefs are guiding principles of information-based inquiry (fig. 2). They suggest a vision and mission for school libraries that drives school librarians' strategic plans that are customised to the needs of their learners and their school communities.

Information-based inquiry integrates best practices in information, literacy, and technology education through a research-based information process that considers the thoughts, feelings, and actions of information users. This kind of inquiry integrates best educational practices such as hands-on project-based learning, authentic assessment (aka performance based assessment), action research, and evidence-based practice. While, for the most part, there is a lack of comprehensive educational reform across school districts, there are pockets of innovative school reforms that are focused on the learner. How do these examples of 'schools of the future,' operate in the present? How do they compare with the teaching methods of THE ESSENTIAL SCHOOL LIBRARY?

1. A.C.T Academy in McKinney, Texas was initially funded by a 5.5 million grant from the U.S. Department of Education and is now supported by the school district. Its 250 learners construct knowledge based on prior knowledge and experience, supported by one-to-one multimedia computers, printers, CD-ROMs, laserdiscs, VCRs, video editing machines, camcorders, cable television, online services, and telephones. A.C.T. Academy has formed community partnerships and business mentorships to foster students' learning experiences. Teachers assess student learning through portfolios and creative performance (authentic) tasks (Education World, 2016).

2. A nine-room classroom in Silicon Valley is filled with children of Google, Apple, and Yahoo employees but there is not a digital device in sight. Instead, teachers at the Waldorf School of the Peninsula take a hands-on, experiential approach that focuses on the role of imagination in learning. For example, a typical lesson for fourth grade students might include acquiring problem-solving math skills through knitting or practicing a modern language by playing a game of catch (Education World, 2016).

3. A Boston-based non-profit called Gique runs a program called 'Science Can Dance' that recruits students from diverse and underserved communities to learn about science concepts through dance. Each workshop pairs a hands-on lesson with unique choreography, teaching topics ranging from circuits to cancer biology. The diverse team of scientists and engineers leading the program serves as informal role models for the kids (WGBH, 2016).

4. The ALTSchool, a 133 million dollar school startup is financed in part by Facebook CEO Mark Zuckerberg. The school uses custom software to personalise each child's education and work with students around a customised curriculum.

> We build a dashboard for educators called learning progression where each teacher can kind of see for every child in that classroom. What's frontier learning for that kid? Where are they struggling? Where are they ahead? (Simon, 2016).

Student are served up a 'playlist' where each has a list of 25 items they are responsible for each week. Peering into a student's Google Chromebook, the list reveals a series of activities, called cards, that might vary from using an iPad learning app to watching an instructional video. The teacher uploads cards designed to help that student learn and thrive. As in Montessori schools students choose the content they want to learn. Classes are mixed-aged within a couple of years.

5. Competency-based education is a mainstream equity initiative that is structured to meet the needs of all students. Learning is not framed by passing and failing, but by growth. In so doing, North Queens is prioritising students' development of skills and strategies to solve problems, rather than prioritising content. Bloom's Taxonomy is used to teach and assess the thinking skills students need to solve a problem and move from lower level to higher level thinking. The design of learning tasks is viewed as important in moving students from remembering to higher order critical thinking such as analysing and creating. North Queens' students are not grouped by grade levels but by their needs. Teachers spend time understanding their students, their skills, maturity, and what engages them, rather than a one-size-fits-all approach. Teachers also self-assess to determine whether they have the skills to provide effective instruction to all students and if they don't, they are expected to ask for help. One of the ways schools can better meet students where they are is to be honest about the proximal gap, or the relationship of the student's zone of proximal development and how it relates to the teacher's zone of proximal development. This is a powerful concept in terms of assessing to what degree the school has the capacity to help students.

It is clear that there is no one definition of the 'school of the future', however there are strong similarities in teaching methods across cutting edge, non-traditional schools described above. School libraries share these similar educational practices. Similarly, there is not only one model for THE ESSENTIAL SCHOOL LIBRARY, but there are basic beliefs and best practices similar to those implemented in schools of the future that align with school library instruction. When school librarians take on leadership roles to model the educational reform, especially those reforms that may already be in practice in schools, they begin to forge a common technical culture between the library and the classroom. In so doing they become ESSENTIAL SCHOOL LIBRARIANS who can change the culture of education, one school at a time.

. . . they become ESSENTIAL SCHOOL LIBRARIANS who can change the culture of education . . .

Suggestions for Using the Advocacy Guide

The advocacy guide can raise the awareness of teachers, principals, and parents by 'showing' rather than 'telling'. Here are some suggestions for how you can use the information in this guide with teachers, principals and parents:

1. Learners learn best when they can follow their interests and passions.

Teachers: Invite students to self-select reading materials for the library collection and prominently display these materials in the library and hallways. Work with teachers to find ways to 'de-institutionalise' reading as a 'school subject' and promote free, voluntary reading.
Principals: Include the strategies and tools described in the guide in your strategic plan for instruction. Share the plan with your principal in the fall and follow up in spring to report progress.
Parents: Set up a Parents' Page on the library website to share materials, activities, and student work from inquiry learning units.

2. Learning is continuous, personal, and contextual.

Teachers: Work with classroom teachers to include choices for students in information and research inquiry tasks in the classroom and in the library.
Principals: Invite the principal to displays and presentations of students' inquiry work along with your work, and that of the collaborating teacher, to raise the profile of the teaching methods that motivate and engage students.
Parents: Invite parents to displays and presentations of students' inquiry work.

3. Learners need personalised intervention when they can no longer move forward in their learning.

Teachers: Extend your participation in inquiry learning beyond the walls of the school library by partnering with teachers in their classroom teaching.
Principals: Share student work, journal entries, reflective statements or writings, survey results at the end of an inquiry unit to demonstrate the impact you have on learning.
Parents: Share students' work in a photo gallery on the Parents' Page of the library website.

4. Media or digital literacy is literacy, and literacy is the foundation for all learning.

Teachers: Legitimise reading in all formats, including alternative materials such as newspapers, high interest magazines, digital texts, non-verbal media, oral histories, storytelling (aural and digital) by displaying and recommending these materials in conversations and on the library website.
Principals: Invite the principal to observe your classes when you are using the ISP and digital tools.
Parents: Hold seminars through the parents' association to share digital tools and post them on the Parents' Page of the library website.

5. Learners need multiple sources, in print and digital formats, to stimulate their interest, curiosity, and comprehension.

Teachers: Promote the ISP/Guided Inquiry as a strategy for developing reading comprehension with teachers and parents, using digital tools to collect, and summarise information.
Principals: Share lessons that integrate reading comprehension strategies for print and/or digital text with information literacy and include formative assessments created by students to demonstrate improvement. This work could be posted on the library intranet website.
Parents: Publish a Reading List for Parents from the library collection on the Parents' Page of the library website.

6. Information skills are reading and thinking skills.

Teachers: Promote the ISP/Guided Inquiry as an analytical tool to interpret, compare/contrast, contradict, support, disprove, and find errors in found information.
Principals: Invite principal to a display of student work that represents finding an answer to a question through scientific investigation and/or designing an engineered solution to a problem.
Parents: Share reading comprehension strategies with parents on the Parents' Page of the library website by reviewing and recommending books and online reading via the school library website.

7. Active, hands-on learning in inquiry contexts is the most effective teaching approach for developing deep understanding and resilient, sustainable knowledge.

Teachers: Display student work in classrooms as well as the library.
Principals: Display student work in the hallways and principal's office as well as the library.
Parents: Involve parents in investigative activities assigned to students through survey questions, interviewing, focus groups, so that students can collect the information from them.

8. Learning is collaborative and social. Classroom teachers need continuous, just-enough-just-in-time support for teaching and assessing information-based inquiry learning, and print and digital literacy.

Teachers: Support collaborative teaching strategies such as inquiry circles and peer review and the use of Edmodo or other social media that is not published on the internet.
Principals: Discuss scheduling issues, time on task, library accessibility before and after school and at lunchtime to maximise student and teacher access to the school library. Use graphs and other visuals and statistics to substantiate claims about access.
Parents: Share collaborative projects on the library intranet website and alert parents by email when their students' work is displayed.

9. Equity, not equal opportunity, ensures that all children receive the help they need to succeed.

Teachers: Promote literature as a competency-based learning that changes classroom culture from an authoritarian model to a participatory model and switches the focus from summative to formative assessment to improve students' performance.

Principals: Share records of class visits to the library with analysis that demonstrates inequities in access by grade level, by subject area classes or departments, and by students with learning or reading difficulties compared with students without learning. Calculating averages and using graphic displays are good ways to represent your findings.

Parents: Include a link to a page for parents on the library website that shows the work of the library in terms of student work. Use photos, graphics, visuals to communicate how the school library contributes to students' 21st century education.

It is my hope that you find this article and the references and resources listed below useful in leading change in your schools and that you will share strategies you have used in the past as well as new strategies you use or adapt from this article.

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