The Essential School Library: A prototype for the reform of 21st century education

By Carol A. Gordon

Snapshot

Dr Gordon guides us through her concept of the Essential School Library. Gordon explores the key components that make up the essential school library and what we need to do to build and support this vision of what school libraries can and should be.

No library is an island ... Libraries and librarians should form alliances with institutions and professionals that share our values and work with them in various ways that would enable libraries and their institutions to flourish and prosper. (Gorman, 2015, p. 18).

Teacher librarians have unique opportunities to expand and deepen their alliances within their educational institutions. They are well-positioned to find 'various ways' to collaborate with principals and teachers who share their educational values. However, teacher librarians' attempts to work with all educators and reach every student meet with varying degrees of success. Classroom-centric schools, inflexible schedules, textbook-based teaching, and paper and pencil testing are not conducive to sustained inquiry that requires learners to be self-directed as they question, explore, hypothesize, and draw conclusions. Classroom teachers may perceive the school library as a traditional warehouse of resources rather than a well-equipped classroom that supports learners' information management and knowledge construction even though our school libraries have long been laboratories for developing, testing, and adopting information- and inquiry-based pedagogies. The alliances teacher librarians form with teachers have the potential to transition educational practice from a monolithic 20th century industrial model of 'mass education' to a 21st century model of personalized learning that aims for equity rather than equality. The Essential School Library transforms the language, infrastructure, and priorities of our school libraries so that teacher librarians can align mainstream classroom school library pedagogy. How do we define an Essential School Library that embodies our research and practice traditions and ensures a future in which our school libraries 'flourish and prosper'?

> **The alliances teacher librarians form with teachers have the potential to transition educational practice...**

Equality does not ensure equity!

What is the research that supports the Essential School Library concept?

School libraries emerged from the idea of a free, public educational system. Horace Mann, the 'father' of American education, was aware of inequities in the education of youth in Massachusetts.

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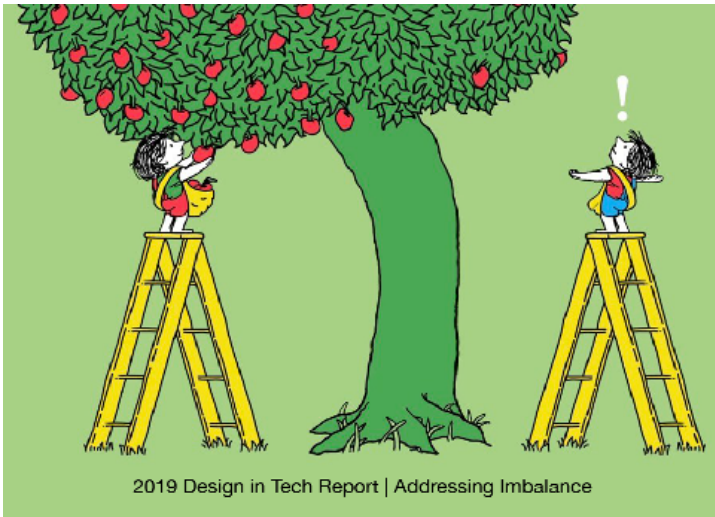
Mann advocated for 'common schools' that offered free, universal, nonsectarian, and democratic public education taught by professional teachers. He conducted research using a statewide survey that documented deficiencies of schools' resources, low literacy rates of students, and inequitable access of these students to resources across socioeconomic levels. Mann concluded that the common school library was a remedy for these issues. According to O'Connell (1934), when Mann was appointed Secretary of the Board of Education, he presented legislation for the establishment of 'common school libraries.' Mann considered this legislation to be as important as any passed since the act of 1647 which created 'common-schools.' More than three hundred years later Gaver (1963) surveyed 271 schools in 13 U.S. states to determine school library impact. She found that students in schools with centralized libraries and professional librarians scored higher on standardized test scores. Lance (2013) continued this research tradition across the U.S.A., consistently reporting a positive correlation between student achievement on standardized tests and the provision of school library services by certified teacher librarians. In recent years studies of impact have expanded to studies of the effects of the 'access gap' (Pribesh, S., Gavigan, K.& Dickinson, G, 2011) and the status of equitable access to school library resources and services across school populations. (Gordon & Cichetti, 2018)

...consistently reporting a positive correlation between student achievement on standardized tests and the provision of school library services by certified teacher librarians.

What is the technical culture that drives Essential School Library practice?

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, utilize technologies, innovate, and above all – think. (Barrett, 2012)

Teacher librarians are applying their expertise in information processing, literacy, and digital technology to contribute to a shared technical culture that is transforming how educators prepare youth across socioeconomic backgrounds to live, play, and work in digital environments. These ten critical concepts support the technical culture of the Essential School Library.

1. Learners learn best when they can follow their interests and passions.
2. Learning is continuous, personal, and contextual.

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

4. Media/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, as well as print and digital literacy.

9. School librarians have a professional development role in their schools to help teachers develop teaching strategies in the 21st century literacies.

10. Equity, not equality, ensures that all children receive the resources and help they need to succeed.

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While these beliefs and practices inform the work of teacher librarians, school libraries are not fully integrated into their educational contexts. How can teacher librarians groom their libraries to become Essential Libraries that form alliances with educators and professionals to share their values and beliefs and work with them in ways that enable libraries and their institutions to flourish and prosper?

What is the language of the Essential School Library that serves the common technical culture of the Essential School Library?

The focus on learning outcomes is communicated in the Essential School Library's operational terminology that requires a new lexicon for the functional elements of the school library. (fig. 1).
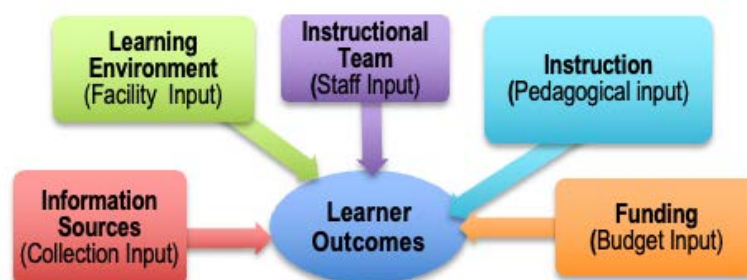

Figure 1: A new lexicon for the Infrastructure
of the Essential School Library

- **LEARNING ENVIRONMENT**

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

- **INSTRUCTIONAL TEAM**

  Staff, including professionals, paraprofessionals, and parent and student volunteers comprise an ***instructional team*** that provides help, appropriate to their expertise, to library users. A team approach ensures delivery of personalized learning at the point of need. Teacher librarians provide training and support for their instructional teams, as well as for learners and educators, to embrace a new and emerging language for information resources and teaching strategies. The expansion of this professional development role to all members of the school community is seminal to changing school culture.

- **INSTRUCTION**

  Teaching evolves from research-based beliefs about how learning occurs. It is driven by constructivist learning theory and is adapted to learners' needs. Recent research on low-to-moderate income learners is incorporated in the belief system that drives instruction so that Intervention and help can be adapted to learners' needs at the point of need.

- **FUNDING**

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

- **INFORMATION SOURCES**

  The **library collection** goes beyond print and analog materials to include digital i***nformation sources***. 21st century teacher librarians are the curators of the collection. They select, create, and modify free open-education resources (OER) and maintain a virtual library on their websites that be accessed by the school and the greater community.

What kind of teaching is supported by the infrastructure of the Essential School Library?

The Information Age brings advantages such as increased access to information and challenges such as information overload, misinformation, and navigating complex information environments. Unlike print collections, 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: The Information Search Process/Guided Inquiry (Fig. 2) ; Authentic Learning Tasks; Digital Technology; and Evidence-based Practice.
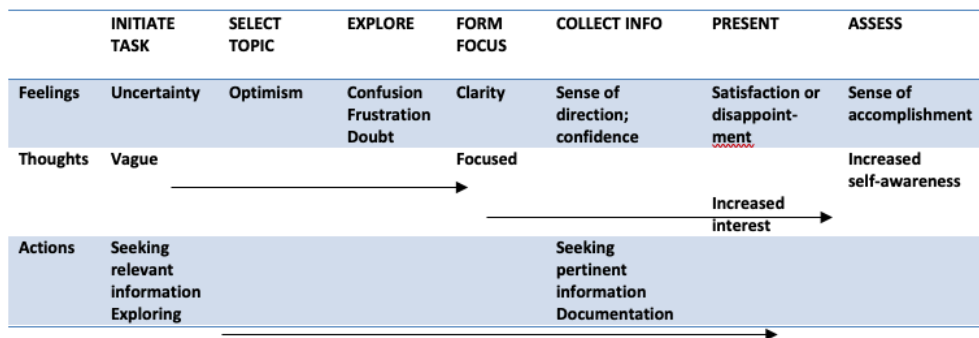
	INITIATE TASK	SELECT TOPIC	EXPLORE	FORM FOCUS	COLLECT INFO	PRESENT	ASSESS
Feelings	Uncertainty	Optimism	Confusion Frustration Doubt	Clarity	Sense of direction; confidence	Satisfaction or disappoint-ment	Sense of accomplishment
Thoughts	Vague			Focused			Increased self-awareness
						Increased interest	
Actions	Seeking relevant information Exploring				Seeking pertinent information Documentation		

Figure 2. The Information Search Process/Guided Inquiry

The Information Search Process (ISP), known as Guided Inquiry, is an indispensable tool that alerts educators to learners' need for help and intervention. It is a research-based model that predicts thoughts, feelings, and actions of information seekers and supports information skills as thinking skills (Kuhlthau 2003). Shown in fig. 2, the ISP is a roadmap for understanding how thoughts, feelings, and actions change as learners find and use new information. Zones of intervention are based on the educator's 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. 2) 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) provide help critical for young people to move along a continuum of inquiry from novices to experts and independent learners (Kulthau, Maniotes & Caspari, 2012). The other ISP stages also address the user's feelings, thoughts and actions, as shown in fig. 2, and require appropriate interventions. The ISP is a roadmap for understanding how thoughts, feelings, and actions change as learners find and use new information. In the context of a learning task, learners are expected to use information to think critically to solve problems. This entails a hierarchy of critical thinking skills as defined by Bloom's Taxonomy (1956) and revised by Anderson, et al. (2001) to include remembering, understanding, applying, analyzing, and creating. Despite the efficacy of the ISP and Guided Inquiry this teaching tool has not been well communicated to educators.

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Authentic Learning Tasks ask learners to:

1. Assume a 'real life' role rather than that of 'student';
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 task 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. This is another tool that educators need to know how to use not only in the school library, but in their daily practice.

Digital technology generates digital objects that collect evidence of student progress and shape interventions and give structure to the collection of evidence that informs teaching. (Gordon 2009) For example, digital mind maps are visual tools for INFORMATION COLLECTION (fig. 2) in lieu of linear note taking. At the PRESENTATION ISP stage (fig. 2) learners may choose to create digital videos or podcasts, for example, to express what they learned as an outcome instead of writing a paper. While educators are using digital tools that require the learner to apply information they have found, their teachers are not preparing their learners to process and use information prior to the Presentation stage of the ISP.

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).

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Action research is a tool of evidence-based practice that helps teachers and learners to revise their teaching or their learning. Educators and students can become action researchers as they learn how to design and use surveys, interviews, or focus groups, for example, to gather evidence of their progress. Action research offers opportunities for them to reflect

on their work and revise it to improve learning outcomes. It also 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.

What does it mean to be 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)*

Teacher librarians play a multi-dimensional role in literacy by helping learners to be transliterate across print and digital texts and by addressing information literacy, including information use as well as searching and retrieving information. 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.

A broader interpretation of information literacy (American Association of School Librarians, 2007) suggests the need to support disciplinary literacy. For example, 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 disciplines 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 US state K-12 content area standards. These literacies speak to classroom teachers who are focused on teaching academic disciplinary content.

The co-existence of print and digital literacy in the Essential School Library presents unique opportunities for learners to experience information use and knowledge construction in a culture of help and support. The teacher librarian's traditional role in reading has included reading motivation through book talks, readers' advisory, and book displays. When research-based reading comprehension strategies (Harvey & Goudvis, 2000) became best practice for English Language Arts teachers and information literacy skills grew to include thinking skills, the improvement of reading comprehension in the library was formalised. 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. In addition, Research documents 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, and do engage in sustained reading. New 'forms' of reading are emerging, such as 'power browsing' horizontally through titles, content pages and abstracts (Rowlands et al., 2008). However, comprehension is better in print environments

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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). 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, nor is there an awareness among educators that this is needed. In addition, digital materials in the library are not vetted in the same way as print resources. Consequently 'good' readers may confront comprehension difficulties. Fig. 3 provides examples of reading strategies that align 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?	Digital approaches to activating prior knowledge https://doverdlc.blogspot.com/2017/06/digital-approaches-to-activating-prior.html Digital KWL Chart for Independent Research during Distance Learning https://www.teacherspayteachers.com/Product/Digital-KWL-Chart-for-Independent-Research-during-Distance-Learning-5349973
Exploration	Ask questions 'I wonder…?' 'What if…?'	Brainstorming	Main and supporting ideas for digital media https://betterlesson.com/lesson/603999/main-idea-and-supporting-details-in-digital-media
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.	Question Formulation Technique https://app.education.nsw.gov.au/digital-learning-selector/LearningActivity/Card/568
Information Collection	Summarize Synthesize Make predictions	Graphic organizers Concept mapping Double-entry journal	Creating an Outstanding Concept Map with Canva's Online Design Tool https://www.canva.com/graphs/concept-maps/
Presentation	Make inferences Draw conclusions	Peer Review: Praise, Question, Polish	Drawing Conclusion https://www.pinterest.com/mrsjgardner/drawing-conclusions/

Figure 3: ISP Stages and Reading for Comprehension Strategies

Collaboration: Bridging Essential School Library Technical Culture to Mainstream Teaching

While the rationale for bridging the gap between classroom and school library is strong, the logistics seem insurmountable. Teacher librarians need a strong collaboration with school administrators who can support innovative ways for teacher librarians and classroom teachers to co-teach in asynchronous as well as synchronous time frames. Collaboration with the principal is critical for teacher librarians to develop their role of 'teacher-of-teachers.' Teacher librarians also need to communicate and collaborate with parents and with the greater community, including public and academic libraries, local businesses, science organizations, higher education, other

schools, local government and school boards to build relationships and partnerships. Through collaboration with communities teacher librarians can ensure that every child has opportunities to learn 21st century skills, explore career opportunities, and establish networks.

A shift in attention from equality to equity is foundational to the alignment of school library and educational reform that ensures all children get the support they need to succeed. While strategies based on equality treat everyone, they are not enough for children of poverty whose socioeconomic status puts them at a disadvantage when they enter school. Equity, on the other hand, gives each learner what he or she needs to be successful and has already been legally acknowledged for special needs students through legislation in the United States. If a learner is unprepared to reach an educational standard, no amount of grade-level teaching can be successful. Resta & Laferrière (2013, 3) define the importance of access as follows: If there is one ICT (Information, Communication and Technology) impact that policy makers 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.

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 often take an additive approach, focusing only on the provision of bandwidth, connectivity, and digital devices. Equity issues are opportunities to close the gap between classrooms and the school library as teachers and teacher librarians identify common values and goals rooted in approaches rooted in equity.

Our youth need a different kind of education beyond the provision of new technology. 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 that model these practices and promote their adoption by K-12 educators. Equity is a library value that drives all dimensions of instruction in the library and classroom. The school library has the potential to be the epicenter for equity in schools by changing the culture of schooling as they model provision of resources and training in information-based inquiry, technology integration, and literacy development for all

Equity is a library value that drives all dimensions of instruction...

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 and to every home in the greater community. Virtual classrooms within virtual school libraries can facilitate collaboration between teacher librarians and classroom teachers, using artifacts of library technical culture, such as Guided Inquiry, to collaborate as they engage in 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 competencies and academic content are fully integrated in a curriculum that integrates the Essential School Library into the educational infrastructure of the school. As Gorman predicts:

> **...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 and to every home...**

No less than the future of a civilization based on learning is at stake. We can continue to be inward by following the materialistic, mechanic and - ultimately trivial paths of information and management, or we can work with institutions that are our allies to create expansive structures in which knowledge and learning can flourish and the preservation and onward transmission of cultural heritage are assured. (Gorman, 2015, p. 21)

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