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Best IASL Conference 2017 Paper: Preparing Teacher Librarians to Support STEM Education

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ABSTRACT

A current focus in schools in the United States is STEM education, which prepares students for successful employment and post-secondary studies that require unique and more-technically advanced skills through teaching and learning in the areas of science, technology, engineering, and mathematics (STEM). This approach is grounded in problem solving, discovery, and exploratory learning, which requires students to actively engage in a situation in order to find its solution. Students engage in STEM learning in many different ways, with technology and digital resources playing an important role. The prominence of technology in STEM education provides leadership opportunities for teacher librarians. Yet, teacher librarians must be prepared to lead in the integration of technology to support STEM education. This report presents identified needs of teacher librarians in regards to supporting STEM education and discusses implications for better preparing pre-service teacher librarians to lead in order to address the needs of a new generation of learners.

Keywords: STEM, Technology, Teacher Librarians, Leadership, Learning

INTRODUCTION AND RESEARCH PURPOSE

STEM education prepares students for successful employment and post-secondary studies that require unique and more-technically advanced skills through teaching and learning in the areas of science, technology, engineering, and mathematics (STEM). STEM has been defined as an “interdisciplinary approach to learning where academic concepts are coupled with real-world lessons as students apply science, technology, engineering, and mathematics in contexts that make connections between school, community, work, and the global enterprise enabling the development of STEM literacy and with it the ability to compete in the new economy” (Tsupro, Kohler, & Hallinen, 2009, p. 6). Educating students in the STEM areas not only prepares them for successful employment and post-secondary studies, but also for life, by teaching how to think critically and solve problems through a collaborative, hands-on, problem-solving, and project-based approach to education.

Despite the national initiatives focusing on STEM, students in the U.S. continue to rank lower in science, in general, and literacy in both math and science compared to their counterparts in other countries. American students rank 17th out of 33 in science literacy and 25th out of 33 in math literacy among students in developed countries according to the most recent Programme for International Student Assessment (PISA) report (Organisation for Economic Co-operation and Development, 2015), leading to continued concerns that U.S. schools are not preparing students to enter STEM fields (e.g., Desilver, 2017; Heim, 2016; National Academy of Engineering & National Research Council, 2014; Randazzo, 2017).

STEM education is grounded in problem solving, discovery, and exploratory learning, which requires students to actively engage in a situation in order to find its solution (Young, 2013). Students engage in STEM learning in many different ways, with technology and media playing an important role, as students learn concepts most effectively when exposed to interactive resources like digital videos, audio and graphics, scientific data sets, virtual manipulatives, and simulations (e.g., Mardis, 2007; Mardis & Payo, 2007; Perrault, 2007; Subramaniam, Ahn, Fleischmann, & Druin, 2012; Subramaniam & Edwards, 2014; Subramaniam et al., 2013; Young, 2013). Students need exposure to current and emerging technologies appropriate for STEM learning, but also instruction on how to interact with and

utilize digital tools to “communicate, solve problems, and access, manage, integrate, evaluate, and create information to improve learning in all subject areas and to acquire lifelong knowledge and skills in the 21st century” (American Association of School Librarians, 2009).

Teacher librarians with advanced digital information abilities, along with expertise in inquiry learning can engage students and support teachers by providing access to digital resources, encouraging students in authentic inquiry practices, and providing real-world collaborative learning opportunities to promote STEM learning. Therefore, the purpose of this research is to explore and document the needs of teacher librarians in regards to supporting STEM education efforts in their schools, specifically through the utilization and integration of digital tools and resources, to address the research question:

What are the knowledge, skills, and abilities needed by teacher librarians in order to support STEM learning?

This investigation specifically seeks to identify the current knowledge and abilities of teacher librarians in regards to supporting science, technology, engineering, and mathematics content areas and the gaps in knowledge and skills in order to serve as the basis for curriculum development for teacher librarians preparation programs, as well as creating professional development/continuing education opportunities for practicing teacher librarians.

REVIEW OF THE LITERATURE

Few studies to date have examined the topic of teacher librarians and STEM education; those that have, find that teacher librarians can play an important role in supporting students and teachers (Hoffman & Mardis, 2008; Mardis, 2014; Rawson, Anderson, & Huges-Hassel, 2014; Subramaniam et al., 2013; Subramaniam et al., 2012; Subramaniam & Edwards, 2014). The American Association of School Librarians (AASL) defines five roles for teacher librarians, including that of information specialist, which has been found to demonstrate the most potential for supporting STEM education efforts (Hoffman & Mardis, 2008; Mardis, 2007; Subramaniam et al., 2013; Subramaniam et al., 2012). As an information specialist, the teacher librarian is charged with “introduce[ing] and model[ing] emerging technologies, as well as strategies for finding, assessing, and using information,” in order to ensure that learners are equipped with the skills and knowledge they need to succeed in the digital society of the 21st century (AASL, 2009, p. 17). As information specialists, teacher librarians can serve as leaders in the integration of technology for STEM teaching and learning.

The Role of the Teacher Librarian Supporting STEM

Education research illustrates that utilizing technology effectively in the classroom can improve students’ critical thinking skills, improve standardized test scores, provide numerous innovative educational opportunities, increase student motivation, and enhance the overall learning experience for students (e.g., Donovan, Green, & Hartley, 2010; Fu, 2013; Johnson, Adams Becker, Estrada, & Freeman, 2015; Levin & Schrum, 2013; Delgado, Wardlow, McKnight, & O’Malley, 2015). Yet, research finds that teachers continue to have difficulty locating appropriate digital content and are uncomfortable using digital content (Project Tomorrow, 2014, 2015).

Teacher librarians, as information specialist, can find resources to support STEM content areas for teachers to utilize in their instruction (Hoffman & Mardis, 2008; McIlvain, 2010; Mardis, 2014; Perrault, 2007; Rawson, 2014; Subramaniam, 2015; Subramaniam et al., 2013). Digital resources and tools enrich student learning by enabling them to comprehend, visualize, and explain difficult concepts, which are otherwise difficult to portray inside the classroom, and by providing authentic learning and analytical experiences, such as demonstrations, simulations, experiments and observations of real world events, which were once limited to scientists. [9,18] Digital video is one such resource that can be utilized to support learning and it is commonly the teacher librarian who recommends videos to teachers (Albertson & Johnston, 2016; Mardis, 2007, 2014; McIlvain, 2010). The increased sense of urgency around how to effectively use digital tools and content to be able to impact student learning paired with teacher’s continued struggles and discomfort with using digital content, positions teacher librarians to train and model for teachers how to effectively use technology and media for STEM learning (Johnston, 2012; Mardis, 2014; Pandora, 2009; Subramaniam et al., 2013).

Teacher librarians can also interact with and engage all students in effectively utilizing digital resources, such as simulations, digital videos, and online gaming, that will develop scientific problem solving thinking (McIlvain, 2010; Perrault, 2010; Project Tomorrow, 2015; Subramaniam et al., 2013; Subramaniam et al., 2012). The top subject areas in which students use video to support learning are science and math (Henriques, 2016; Johnson et al., 2015). Teacher librarians can build a rich multimedia collection and teach students about utilizing a variety of digital tools, such as databases, online digital libraries, and apps, to locate information and to organize their findings through curriculum and interest based projects (Mardis, 2014; Mardis & Payo, 2007; Subramaniam et al., 2013; Young, 2013). Teacher librarians can help teachers and students locate data from online databases to answer questions, collect evidence to support arguments, and develop data literacy practices especially related to science and engineering (Fontichiaro, 2016; Henriques, 2016).

Digital resources have opened up a participatory world where students can connect to a global world of information and learn; it is teacher librarians that can teach students ethical and responsible behaviors to become global literate citizens (Subramaniam et al., 2012). As Subramaniam et al. (2012) found, “school library program is the ideal place to connect young people, media, and technology to engage students in STEM” and by leveraging expertise in integrating, utilizing, and managing digital information, teacher librarians can engage students in K-12 libraries to facilitate inquiry and digital literacies in STEM areas (p. 163). “School libraries emerge as an ideal hybrid space to bridge the formal classroom with the broader world” by making connections between the digital resources and concepts and their application to the world outside of the classroom or library (Subramaniam et al., 2012, p. 163).

Yet, despite these opportunities for teacher librarians to become actively involved in STEM education, research suggests that teacher librarians are not embracing them Subramaniam et al, 2012; Subramaniam et al., 2013). Shultz-Jones and Ledbetter (2009) find that even though information literacy and science literacy goals correspond, collaboration does not often take place, attributing this to science and math teachers’ concerns regarding the teacher librarian's credibility and a lack of awareness of how the teacher librarian can positively affect student achievement. The same holds true for math teachers, who discount the teacher librarians and the needed expertise in mathematics to serve as an instructional partner (Subramaniam & Edwards, 2014). Another reported barrier is the teacher librarians themselves. Previous research finds that teacher librarians do not feel confident in their content knowledge of STEM areas (Mardis, 2007; Perrault, 2007; Rawson, 2014; Rawson, Anderson, Hughes-Hassel, 2015; Subramaniam et al., 2012; Subramaniam et al., 2013). Some attribute this to the fact that many teacher librarians come from a humanities background and lack the content knowledge in the STEM areas and are therefore hesitant to collaborate with teachers in these areas (Mardis, 2007; Perrault, 2007; Schultz-Jones, 2010; Shultz-Jones & Ledbetter, 2009; Young, 2013). Additionally, teacher librarians state they have not been adequately prepared in school library preparation programs to support and collaborate in the STEM areas, and then in practice there is a lack of professional reading and professional development opportunities in these areas. This lack of familiarity with the STEM areas and content standards can also lead to an inadequate collection of resources – both print and nonprint to support STEM education (Hoffman & Mardis, 2008; Schultz-Jones, 2010; Shultz-Jones & Ledbetter, 2009; Young, 2013).

This deficit in the knowledge, skills, and abilities that teacher librarians need to support STEM has led to feelings of inadequacy with STEM content areas and digital tools, resulting in hesitation to work with students and teachers in these areas, therefore leading to leading to inadequate services for the STEM needs of students and teachers. A teacher librarian equipped with advanced digital information skills coupled with applied STEM capabilities can engage students and teachers by facilitating meaningful use of digital resources and providing real-world collaborative learning opportunities to promote and support STEM learning.

RESEARCH DESIGN

A needs assessment is a “systematic approach to studying the state of knowledge, ability, interest, or attitude of a defined audience or group involving a particular subject” (McCawley, 2009, p. 3) In this research the defined group is teacher librarians in rural areas of the southeastern U.S. and the topic is the

state of their knowledge, ability, interest, or attitude in supporting STEM learning in their school library program. This type of assessment is conducted in order to allow the target audience to verify its own level of knowledge and skill, as well as its perceptions on the gaps and possible solutions (McCawley, 2009). This research followed the needs assessment process as defined by McCawley (2009): determine objectives, define the target audience, and collect the data; and utilized the methods of key informant interview and observation for data collection.

Determining Objectives

The first step in conducting a needs assessment is to determine the objectives of the study. The objectives of this study were taken from the overarching research question: 1) determine the knowledge, skills, and abilities that teacher librarians working in STEM schools felt were needed in order to support STEM education efforts; and 2) learn if teacher librarians perceived if they had been adequately prepared for this role; and if not, where do they perceive the gaps. It is important in a needs assessment to not limit information gathered to just existing knowledge or skills, but to investigate what the audience already knows or believes about the topic, what other efforts they may have taken to address deficiencies, and the audience's opinions and perceived solutions (McCawley, 2009).

Defining the Target Audience

Needs assessments research documents the current situation for a target audience, therefore, the second step in conducting a needs assessment is to thoroughly define the target audience, or those who should provide the data (McCawley, 2009). The target audience for this study is teacher librarians working in schools that are designated as a "STEM school." For the purposes of this research a STEM school is one that has been certified by their state department of education or local area ruling school body as a STEM school, or has some type of "official" designation as a STEM school, academy, or magnet school.

To further define the target audience, a geographical criterion was imposed, as the rural southeastern U.S. Rural school districts are behind and face challenges, particularly when compared to urban/suburban schools in the advancement of STEM. These challenges include tight budgets, inflexible curricula, lack of technology, struggles with recruiting and retaining great teachers in shortage areas like STEM, and a lack of professional development opportunities for teachers. Therefore, teacher librarians working in rural areas in the southeast U.S. were selected as the target audience. The rural and culturally diverse populations found in these areas comprise some of the lowest socioeconomic indices in the country, so there is a critical need for support in STEM areas that a teacher librarian can provide.

Collecting the Data

The next step in the needs assessment process is to gather appropriate and sufficient data that provides concrete evidence that can be used to determine which of the possible means-to-the-ends are most effective and efficient for achieving the desired results (Gilchrist & Williams, 1999). It was determined that the most appropriate methods to employ for this research were key informant interviews and observation. The needs assessment process is not a linear one, it is iterative with loops, with what you learn from your observations informing what you ask in the interview, and what you learn in the interview leading you to see things differently in your observations (McCawley, 2009).

Key Informant Interview

Key informant interview is a qualitative research method in which the researcher conducts in-depth interviews with a select group of individuals who are likely to provide needed information, ideas, and insights on the particular subject of study (Gilchrist & Williams, 1999; Kaplan, 2013; Tremblay, 2003). In-depth interviews are conducted with a small number of key informants, usually 15-35, and focus on a topic that the interviewees have first-hand knowledge. The interview is usually conducted using an interview guide that list topics or issues to be covered during the interview rather than specific questions. The interviewer frames the actual questions during the course of the interview. This semi-structured interview with a key informant should have an informal tone, like a conversation. The interviewer probes to elicit more information from the informant throughout the interview. The primary

goal is to obtain qualitative description of perceptions or experiences, rather than measuring aspects of the experience (Gilchrist & Williams, 1999; Kumar, 1989; Tremblay, 2003).

Key informants are individuals who meet specific selection of criteria based on their personal experiences and knowledge, in the case of this research the key informants were defined in the targeted group, as those teacher librarians currently working in schools designated as STEM schools in the rural southeastern United States. Key informants were purposively selected because they are knowledgeable and/or have experience with the topic under study, in this case the knowledge, skills, and abilities needed to support STEM learning, and can provide significant contributions to the inquiry (Kaplan, 2013; Kumar, 1989; Tremblay, 2003).

State Department of Education websites were searched and utilized to locate schools designated as “STEM schools.” The researcher then conducted internet searches to find the websites of each school to determine location, then locate the school library page to first see if they had a teacher librarian (not all did), and to look at the programming going on in the library. In staying with the suggested size of 15-35 informants, the researcher selected 35 teacher librarians to email to see if they would be willing to be interviewed about their efforts to support STEM learning in their schools. Twenty-six teacher librarians responded positively and agreed to be interviewed.

It is important to establish a rapport with the key informants in order to obtain in-depth information about practices and perceptions (Kaplan, 2013; Kuamr, 1989; Tremblay, 2003). The researcher began this rapport with email communication with an informal tone and explaining the project. The researcher traveled to each school to conduct interviews over a three-month time period. An interview guide was utilized with interview topics to be covered during the interview rather than specific questions, the researcher asked questions according to the situation to “seek insights, ask follow-up questions, explore different points made during the course of conversation and identify distinctions in perspectives” (Kaplan, 2013, p. 1). All questions were asked informally in a conversational tone, usually while walking around the school library rather than a formally sit-down interview. More issues or topics were covered during the interview than identified in the interview guide, because as the key informants talked about their experiences or giving views and recommendations, the researcher asked more probing questions to seek more details and clarification. This type of interview provides flexibility to explore new ideas and issues that are relevant to the study’s purpose (Kaplan, 2013; Kumar, 1989; Tremblay, 2003). After obtaining permission, all interviews were recorded with a digital audio recorder and the researcher also took extensive notes throughout the interview.

Observation Method

Observation was chosen as complimentary to the interviews with the key informant teacher librarians due to the important part that the environment and use of space in the school library plays in supporting STEM learning (Schultz-Jones, 2010; Schultz-Jones & Ledbetter, 2009; Subramaniam et al., 2012; Young, 2013). The needs assessment process is iterative and informal direct observations led to more questions for the informants during the interview. Observation allowed for notes of how space was being used, the activities going on in the school library, the collection, and of special programming to support STEM. The researcher made detailed notes of the setting and activities taking place in the library and most informants gave detailed tours and descriptions of how their spaces were being used and special programming going on such as STEM centers, makerspaces, robotics tables, and Lego walls; all these descriptions were recorded. Photos were also taken of each school library and ways that STEM learning was supported. Observation is also used as a way to increase the validity of the study, as observations help the researcher have a better understanding of the context and phenomenon under study. The audio interviews were transcribed each night after the researcher conducted the interview. A file was created for each interview that included the audio recording, transcripts of the recording, observation notes, and photographs taken.

ANALYSIS AND RESULTS

Analysis in needs assessment research is about looking for trends and patterns (McCawley, 2009). Thematic analysis is a method for identifying, analyzing, and reporting patterns (themes) within data. Themes that emerge “capture something important about the data in relation to the research questions” are important to the description of the phenomenon under study (Fereday & Muir-Cochrane, 2006; Kaplan, 2013; Vaughn & Clark, 2006). Therefore, thematic analysis of the interview transcripts, direct observation notes, and photographs was conducted. Since this is exploratory research, an inductive approach was taken in that the themes emerge from the frequent, dominant, or significant themes inherent in data (Vaughn & Clark, 2006).

The data collected from the interviews and notes was transcribed by the principal investigator, during this process the initial thoughts and ideas were noted down as this is considered an essential stage in analysis (Vaughn & Clark, 2006). The transcribed data was then read and re-read several times and, in addition, the recordings were listened to several times to ensure the accuracy of the transcription. This process of “repeated reading” and the use of the recordings to listen to the data, results in data immersion and refers to the researcher's closeness with the data (Vaughn & Clark, 2006). Then the interview transcripts, direct observation notes, and photographs were uploaded into NVivo and sorted into folders based on the site where they were gathered. Word frequency queries were run and all data sources and all data were coded by word. The researcher conducted analysis to identify and synthesize recurring themes emerging from the data based on prevalence, which was counted in terms of the number of occurrence across all of the data sources collected from all the sites and the core meanings evident in the data that were relevant to the research objectives. The visual representation features in NVivo were utilized to sort the coded data in to overarching themes and then each piece of coded data was examined to ensure that the theme captures the meaning and aspects of the coded data. Sub-nodes were made according to these themes to capture additional data specific to these themes as well.

FINDINGS

The thematic analysis process that was applied to the transcripts elicited patterns or themes that were evident in the data. These themes are viewed as essential in determining the needs of all the participants. The major overarching themes emerged as: Knowledge, Technology, Resources, and Space. This report will focus on the theme of Technology as it relates to the purpose of the research, to identify the knowledge, skills, and abilities needed by school librarians in order to support STEM learning.

Technology

Technology was the most frequently mentioned topic by participants when discussing how they support STEM education in their schools. Concepts that emerged as sub-themes as needs were determined as: the knowledge of how to effectively integrate technology to support STEM; the ability to stay up-to-date on emerging technologies, and the skills to teach students how to access and utilize digital information.

Knowledge on How to Effectively Integrate Technology for Teaching & Learning in the STEM Areas

While an important aspect of teacher librarians supporting STEM content areas is the purchasing of a variety of technology and digital resources, participants spoke more about how to integrate the resources into the teaching and learning process. Participants expressed that sometimes they felt they did not have enough knowledge on how to integrate the resources effectively in the STEM areas. “There is so much technology that can be utilized for supporting the STEM nowadays ranging from digital microscopes to virtual reality simulations, but you need a sound understanding of how to best use these resources for learning. I think this is an area I could have learned more about in library school.” Other participants expressed this deficit in their preparation programs as well stating “I feel like there was a lot of ‘look at all these great resources you can find online,’ but not enough learning the principles of integrating them to support learning.”

One area of STEM that was frequently mentioned by participants was computational thinking, an important foundational component of STEM education. Participants spoke of a lack of knowledge from

their preparation programs in this area and how they had taken it upon themselves to learn. One participant expressed “I had no idea what computational thinking was, much less how to teach it.” Nearly all participants mentioned teaching coding in some way or form to students in their schools. Knowing how to code requires computational thinking skills and an understanding of how to troubleshoot, problem solve, and think critically; when a young person learns to code they gain STEM skills (Braun & Visser, 2017). “I decided to begin a coding club for students during lunchtime as a way I could support the STEM goals of my school. It wasn’t easy because I first had to teach myself, but there are a ton of great resources out there.” This finding overlaps with the Knowledge theme in that teacher librarians need some background knowledge of the STEM content areas and what STEM education in general entails in order to effectively integrate technology to support teaching and learning in these areas.

Participants also frequently spoke about the expectation that they train teachers on technology. One teacher librarian expressed that “my district continually purchases equipment and other resources, like ipads for each school. But they never provide any training.” The role of professional developer is one that the teacher librarian can enact and therefore support teachers. All but two participants mentioned the importance of providing training for teachers on technology for use to support STEM. Many STEM concepts can be hard for students to grasp just by reading about them, but the effective integration of interactive technologies like digital videos, audio and graphics, scientific data sets, virtual manipulatives, and simulations can bring concepts alive (Mardis & Payo, 2007; Subramaniam & Edwards, 2014; Subramaniam et al., 2012; Subramaniam et al., 2013; Young, 2013). Yet teachers still struggle with integrating technology effectively for instruction. Participants expressed that there was the expectation from their administrators that they assist with this. “My principal sees that I should be more than just a provider of these great resources for teacher – that I should be able to train the teachers on how to use them too.”

The Ability to Stay Current on Emergent Technologies

A common thread through the various responses of the participants was their implicit and explicit references to their concern to stay current on emerging technology. The interview responses demonstrate participants’ beliefs that it is the responsibility of the teacher librarian to stay on the cutting edge of emerging technologies so they can introduce them to students and teachers. One participant expressed this saying that “it is like a full-time job just to stay up-to-date – it seems like every day there is some new digital resource.” Another participant stated that while you are in your preparation programs it is easy to stay current with information from courses and from other classmates, yet “when I got out into practice I felt like I was falling behind - it was hard to keep up.” Other teacher librarians shared ways that they do strive to stay current: reading journals, webpages/blogs, social media (Twitter was mentioned by every participant), going to conferences, and attending trainings. The participants also spoke of learning from other teacher librarians through informal channels, but also through professional organizations. This echoes previous research which found professional organizations as an enabler for teacher librarians acting as leaders in technology integration (Johnston, 2012).

Skills to Teach Students About Digital Information

School librarians are responsible for developing “information skills that will enable [students] to use technology as an important tool for learning” (AASL, 2009, p. 13). Technology has become a crucial element of teaching and learning, especially when it comes to preparing students that are equipped with the skills and knowledge they need to succeed in the technological society of the 21st century and beyond.

Education research illustrates that utilizing technology effectively in the classroom can improve students’ critical thinking skills, improve standardized test scores, provide numerous innovative educational opportunities, increase student motivation, and enhance the overall learning experience for students. In modeling and partnering with teachers, school librarians can guide instructional design and offer expertise on the integration of emergent technologies to create engaging and relevant learning experiences for students (AASL, 2009; Johnston, 2012). As information specialists and educators, teacher librarians can engage students and support teachers by providing access to and instruction for utilizing digital resources, encourage students in authentic inquiry practices, and provide real-world collaborative learning opportunities to promote STEM learning. Participants expressed their efforts to teach students

through partnering with teachers. “I work with teachers whenever possible to develop inquiry based lessons that we can connect to science.” Inquiry based learning was mentioned frequently by participants, which was expected since the *Standards for the 21st Century Learner* for K-12 school libraries in the United States are based on inquiry learning (AASL, 2009). There was a strong focus on teaching students how to locate and use information they find online, through databases and other online resources. “I have increased my subscriptions to online databases, especially those with a science focus, and I have expanded my teaching about the databases through all grade levels – even down to first grade.” And in speaking about how they teach these skills, participants stated “I try to incorporate teaching databases into authentic research lessons and projects with each grade level.” Teacher librarians need the skills to teach students about digital information – locating it, accessing it, evaluating it, and utilizing it.

IMPLICATIONS

The overall findings signify a need for teacher librarian preparation programs to adapt to better prepare students for the expectations of today’s teacher librarians, especially for the role of information specialist. Teacher librarians need to be able to support technology integration efforts in all curricular areas, but especially STEM where technology and media play such an important part in the teaching and learning of these subjects. Professors in preparation programs must stay up-to-date with the field, national initiatives that impact the profession, and design coursework that reflects this in order to best prepare future teachers librarians to meet demands and expectations. Teachers continue to find locating appropriate resources to utilize for instruction challenging and still struggle with effective integration (Johnston, 2012; Project Tomorrow, 2014, 2015). Teacher librarians need coursework that instills leadership skills, but also that teaches effective integration of technology for teaching and learning. This type of coursework must include learning the skills necessary to teach students how to locate, access, evaluate, and utilizing digital information within an inquiry based learning framework.

Teacher librarian preparation programs must prepare students to go into practice with strategies on how to stay up-to-date on emerging technologies. Preparation programs can teach students how to connect with other teacher librarians in the field and create a group of supportive colleagues or a community of practice. Students can also be introduced to various professional organizations where they can meet other teacher librarians and experience professional growth opportunities through conferences, workshops, blogs, and journals. Introducing students to various ways to stay current, such as social media and how to develop strategies for effectively utilizing these various outlets should be a part of every teacher librarian preparation program. Yet, it is also important to teach students to move beyond just their own comfort zone of school librarianship to expand their learning from other areas, for example using social media to follow STEM educators for the most current technologies for use in these areas.

The prominence of technology in STEM education provides leadership opportunities for teacher librarians. Yet, teacher librarians need coursework that instills leadership skills and teaches effective integration of technology for teaching and learning. This type of coursework will help them better serve to support teachers in their STEM teaching efforts and in teaching students the skills they need to interact with and utilize digital Information.

CONCLUSION

This study, as previous research, finds that the information specialist role of the teacher librarian demonstrates the most potential for supporting STEM education (Hoffman & Mardis, 2008; Mardis, 2007; Subramaniam et al., 2012; Subramaniam et al., 2013). As an information specialist, the teacher librarian is charged with “introduce[ing] and model[ing] emerging technologies, as well as strategies for finding, assessing, and using information,” in order to ensure that learners are equipped with the skills and knowledge they need to succeed in the digital society of the 21st century (AASL, 2009, p. 17). Yet, this study builds on the previous research to identify the specific needs of teacher librarians in fulfilling this information specialist role. Findings contribute to the exploratory purpose of this study to identify needs of teacher librarians in regards to supporting STEM education. Implications demonstrate the need for

teacher librarian preparation programs to adapt in order to better prepare pre-service teacher librarians to lead through the integration of technology in STEM areas in order to address the needs of a new generation of learners.

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Effect of Bibliotherapy on Unruly Behaviour of Young People in Correctional Homes in Lagos State Nigeria

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ABSTRACT

Bibliotherapy (use of books) is employed in this study with the intention to control the behaviour of young girls resident in a correctional home. This is relevant to the work of school librarians because they can help to find appropriate books that would influence positively the behaviour of young people in correctional homes. Thirty-six female participants took part in the bibliotherapy sessions that made use of Focus Group Discussion (FGD). These girls were separated into two categories - child offenders (17 girls) and out of parental control (19 girls). The study employed the use of a Nigerian authored story book which was read to them during the FGD for 10 weeks. The study found that after reading and discussion of themes in the book, the participants had more understanding of what good behaviour entailed. They became remorseful and sober which was evident during the discussions.

Keywords: Bibliotherapy, Nigeria, Correctional Homes, Book Discussion

INTRODUCTION

There has been growing concern in the Nigeria society regarding the increase in the unruly behaviour of young people (Adegoke, 2015). This informs stakeholders (librarians, scholars, parents/guardian, policy makers, teachers and others) resolve to continually discuss the worrisome dimension of unruly behaviour and its consequences on young people and the society at large. According to the last population census held in Nigeria in 2006, the population was 140,431,490 out of which age group 0-19 are 73,635,716 a fraction that is slightly high. These young people are faced with a number of challenges that could affect their abilities to live a healthy and normal life.

Preliminary investigations revealed that unruly behaviour that young people in Nigeria are involved in include being in possession of hard drugs, use of these drugs, cultism, bullying, truancy, rape, prostitution, examination malpractices and theft. All these wild behaviour are not only detrimental to physical and emotional wellness of the young people, it could also put the society into some problems (Muhammed, Salami, Adekeye, Ayinla and Adeoye, 2009). The involvement of these young people in unruly behaviour may likely make them behave in an unacceptable manner.

Bibliotherapy is a prescribed reading of books to ease a psychological illness. According to McCaffrey (2016), Bibliotherapy is commonly studied in psychology through focus group and it relies on controlled aspects and, more often than not, prescribed non-fiction self-help books that were created by a psychologist. However, personal testimonies of readers can show a powerful impact too, even though the results may not be from a controlled environment. This implies that books can help children and young people relate to and understand intricate feelings they may be going through. Bibliotherapy is an important programme that could be potentially developed into young people's activities in school libraries. The school librarian is assuming the role of a counselor (Oyewusi, 2016) where children and young people can be counseled through the recommendation of appropriate books that can assist them in removing their emotional burdens.

Bibliotherapy is using books and reading of appropriate books to correct and treat the person involved. It is systematic selection of reading materials which can be fiction or nonfiction books. It involves reading books like self help books, story books and poems in order to make young people feel better in themselves and about themselves in order to be able to cope with problems relevant to their situations and developmental needs at appropriate time. Bibliotherapy is of two types, the clinical bibliotherapy and developmental bibliotherapy (Ajayi, 2014). For the purpose of this study,

developmental bibliotherapy was used. The developmental bibliotherapy is any planned use of books carried out with the aim to influence the personal growth and development. It is particularly relevant to the work of school libraries and school librarians.

Developmental bibliotherapy is practiced by school librarians to facilitate and help children and young people cope with issues or situations that could affect or has affected their behaviours. Careful selection of story books based on issues that the young people are going through is very paramount to having a good session/ therapy. The client will then be able to go through all the stages of bibliotherapy (identification, catharsis, insight and universalisation). According to Muhammed (2010) and McCulliss (2012), the future of any nation is largely determined by the well being and quality of its young people. Young people with emotional and behavioural problem are likely to be destructive, misbehave and have problem with coping with socially acceptable behaviour. Young people who have behaved unruly are more likely to commit crime which would take them to correctional homes. These sets of young people can still be helped through the proper use of intervention programmes like bibliotherapy. Thus, reading of prescribed and relevant books can bring back what has been lost in them and make these young people who have been incarcerated in correctional homes into better persons in the society. Bibliotherapy helps the juvenile in correctional homes in discovering, sharing and comparing issues in their lives and that of the character(s) in the book.

Most pupils are not aware that they can go to the library in order to get supportive literature that will help them with their problems and lead them to new knowledge, support, insight, and possible solutions (Baruchson-Arbib, 2010). She reiterated further that young people may not see the librarian as an appropriate person to go to for this kind of help; in addition, librarians hesitate to take on anything of a therapeutic nature, and rightly do so. Hence the need for the librarians in this study to take the bibliotherapy process to young people that has been classified as having unruly (wild and uncontrollable) behaviour and confined to correctional homes. The home used in this study have educational facilities with some form of library attached to them and had a focus group discussion using books as a form of correctional tool was used.

Correctional homes are institutions established for reformation and rehabilitation of persons assigned to it. Correctional homes in Nigeria for young people are referred to as remand homes under the Child and Young Persons Law (Ajayi, 1997; Child and Young Persons Law of Lagos State, 2003; Alemika and Chukwuma 2005;). Correctional homes in Nigeria serves as detention sites for young people who has violated the young people and young person's law or the criminal code (young people in conflict with the law), young people in need of care and protection and beyond parental control. The homes were established with the purpose of reformation, rehabilitation and re integration of such remanded young people back to the society. These set of young people were remanded because of their involvement in unruly behaviour, there is need to properly rehabilitate them so that the purpose of remanding them in correctional homes will not be defeated. Rehabilitation is a necessary resource that is provided to young people (Darbouze, 2010).

Therefore, young people in correctional homes are counseled, educated, rehabilitate, reformed using different interventions in order to empower them to develop skills that could help them to go through life and keep them out of trouble (Bella, Atilola and Omigbodun, 2010). There are different intervention programmes that could be used to help in rehabilitating the remanded young people. According to Ojo (2012), there are several ways of helping young people in coping with issues that face them. For the societal peace and tranquility, there is need to introduce and implement an intervention programme which will be of help to the young people by helping to change them into better persons and re integrate them back to the society. One of the several options available is bibliotherapy.

Role of School Libraries in Changing Behaviours among Young People

School Librarians and libraries can help young people with reading activities to empower and emancipate them from actions that are detrimental both to them and the society. Through reading, young people could enter into the life and experiences of others and this could have implication on their knowledge, scope of experiment, enjoyment and long lasting solution to what they are passing through. A well written story book or novel has other uses aside from educational purpose; it could provide

information that is new to the reader, meet recreational and entertainment needs and also help to gain insight into the issues that the young people are dealing with. Reading of books have been an instrument of change, development and helps in effective decision making (Akinola, 2014).

During reading, users of books are able to compare and contrast behaviour/characters in the book and this will help the reader with inferring some form of reasoning. The role of the librarian as leader of bibliotherapy group meetings is an effective one in situations involving inmates in correctional institutions. In addition to motivating reading interests and helping to escape for a time from his problems, bibliotherapy groups have other important goals such as socialization and communication (Hannigan, 1962). In Nigeria, the most convenient place for young people to have access to books is the library, preliminary observations has revealed that the economic recession in the country would not allow many young people the opportunity to buy personal books for themselves in the face of other pressing needs like food, clothing and shelter. But, a major question to ask is whether the libraries themselves are equipped. Literature (Adegoke, 2015) has shown that several school libraries in Nigeria are not equipped with timely and adequate resources.

School libraries are one of the sources for providing reading resources and a gateway to knowledge. It is a repository of books and other resources that could help young people shape their thoughts and influence their actions. However, we observed that most correctional homes in Nigeria do not have functional libraries where young people could go to read for pleasure. Some of them have a semblance of a library but not a library as defined in the IFLA 2015 School Library Guidelines. The IFLA School Library guidelines (2015) reveals that a school library provides a range of learning opportunities for individuals, small groups, and large groups with a focus on intellectual content, information literacy, and cultural and social development. According to IFLA/UNESCO School Library Manifesto (1999), the school library provides information and ideas that are fundamental to functioning successfully in today's information and knowledge-based society. Unruly young people need the school library to help with their cultural and social development by transforming them into responsible citizens. This is because they are housed in correctional homes and the IFLA/UNESCO School Library Manifesto (1999) also reiterated that specific services and materials must be provided for those who are unable to use mainstream library services and materials. Young people in correctional homes will enjoy the benefits of access to the schools which can assist transform them the following ways:

- School librarians *motivate students to discover the world* through reading. This is because they help students to locate books and information on the topics of their interest.
- School library services with good resources will help young people *explore the world* around them through print and electronic media (Oyewusi, 2016).
- According to Igbokwe, Obidike and Ezeji (2012), good library services should include availability of rich and good resources in stimulating environment that will *help in attaining the correctional objectives of reformation and rehabilitation of the young people* in the correctional homes.
- A functional library would not only provide textbooks for curriculum needs of the young people, but also provide books that will *enhance skills that could help the young people in the future*.
- The school library equips students with *life-long learning skills and develops the imagination enabling them to live as responsible citizens*. It plays this role by selecting, acquiring and providing access to appropriate sources of information (Mahajan, 2010).

Appropriately shared stories provide opportunities for young people to gain insight and learn healthier ways to face difficulties. Young people's literature is a therapeutic tool for facilitating emotional growth and healing. Stories provide a catalyst for change, providing young people with other perspectives and options for thoughts, feelings and behaviours (Okwilagwe and Mubonyi, 2011). School librarian has the responsibility to bring books and young people together for therapeutic reasons in bibliotherapy. According to Hannigan (1962), bibliotherapy can serve group therapy by expertly providing material for discussion and also by reinforcing and complementing the discussion through appropriate reading lists. The librarian, in turn, acts as an analyzer of the discussion material and provides the medicament, so to speak, for the use of the group therapists. According to her, the school librarian with his knowledge of

books and the psychiatrist with his knowledge of people generally and of his patients particularly, make an excellent team.

In carrying out the function of bibliotherapy the librarian recommends and provides reading material through (a) readers' advisory service, (b) individual and/or group therapy, and (c) special library activities correlated with patients' interests (Hannigan, 1962)

- **Readers' Advisory Service:** The librarian stimulates and develops reading interest by recommending and providing reading materials through discussions with young people who come to the library. The librarian assists patients with book selection, and makes suggestions based on their requests, needs, reading habits, physical condition, and educational, social and occupational and language background.
- **Individual and Group Therapy:** The objective of individual and group therapy is to lessen the mental and emotional strain and to motivate the patient toward normal living through professional guidance in the use of library materials.
- **Special Activities:** The librarian aids the patients' physical and mental recovery and adjustment by creating and stimulating their initiative, self-reliance, and confidence through projects leading to the use of library material. Hobby and vocational displays, nature study groups, library activities for special occasions, etc., correlated with the vocational, recreational, and cultural background of the patients, are organized and developed by the librarian to encourage the use of the library in connection with these projects.

It is therefore, imperative for libraries and librarians to render specialised services to targeted groups or disadvantaged group like young people in correctional homes. This is because books read in these specialised libraries can affect a young person's feelings and actions. Correctional homes with library services like other institutions of the society could help in reformation and re integration of the incarcerated young people back into the society just as it will also help the young people in correctional homes to imbibe reading habit.

STATEMENT OF THE STUDY

Young people in correctional homes need urgent attention in the area of unruly behaviour. It is one of the major reasons why they are being incarcerated in correctional homes. When these juvenile are not properly remediated, it can led to more criminals being released into the society. This could create more serious problem for the society at large. The reformatory roles of correctional homes in the country have been neglected over a long period of time with several homes without reading facilities provided for the young people. This could lead to involvement in more disobedient behaviour among inmates. All this are likely to have negative effect on security and gradually cumulate into youth restiveness and insurgency like Boko Haram as seen in the northern of the country.

METHODOLOGY

Purposive sampling procedure was used to select participants for the Focus Group Discussion (FGD). The participants are delinquent young people in Girls Correctional Home in Idi-Araba, Lagos State. Total population of girls in the correctional home is 70 girls. They belonged to four categories: 16 young girls in need of care and protection, 19 girls who are beyond control, 17 girls who are child offenders and 19 girls who needed shelter. The participants in the focus group discussion included 36 girls in two groups who are in the categories of child offenders (17 girls) and out of parental control categories (19 girls). The main purpose of the focus group discussion is to provide the bibliotherapy procedure and discussion using the book "My storybook on values for the African child" by Omoegun (2014). FGD also helped in soliciting in-depth information on the solutions to the issues facing the young girls in the correctional home using the story from the book as a baseline for bibliotherapy treatment.

RESULTS AND DISCUSSION

The project was focused on young people in correctional homes in Lagos state, Nigeria. These young people exhibited unruly behaviour like petty theft, drug and substance abuse, prostitution, truancy, armed robbery, arson, man slaughter and so on. These sets of young people were alleged to have committed the listed offences and they were taken into the protection care of the homes. Firstly, the researchers held a joint meeting with the correctional homes management and teachers to help in creating an atmosphere for reading and understanding.

Procedure during FGD

The story book "My Storybook on Values for the African Child" by Omoegun (2014) was distributed to all the girls for independent reading for one week which was followed by eight weeks of group discussions and activities while the tenth week was used as a wrap up session.

The bibliotherapy process lasted for ten weeks; it was observed that the girls got into the correctional homes after they were involved with unruly behaviour ranging from petty theft, drug and substance abuse, prostitution, truancy, armed robbery, arson, manslaughter and so on. The procedure followed during this study is as follows:

Session One:

Introduction by the researcher for the purpose of gathering;

- The book was introduced and
- Books were given to the young girls for independent reading.

Session Two:

- Guided reading from the story book which was based on the theme "Cooperation".

Session Three:

- This included activities (questions and discussion) on the theme "Cooperation".

Session Four:

- Guided reading from the story book with the theme "Honesty".

Session Five:

- Questions and discussions on theme "honesty".

Session Six:

- Guided reading from the story book on the theme "Responsibility".

Session Seven:

- Questions and discussions activities on theme "Responsibility".

Session Eight:

- Guided reading from the story book on the theme "Tolerance".

Session Nine:

- Questions and discussions activities on theme "Tolerance".

Session Ten:

- Wrap up session which included appreciation of participants.

After systematic reading and getting involved in the activities that follows which reading, it was observed that majority of the young people in the child offenders and out of parental control categories wished they were not involved in the unruly behaviour that brought them to the correctional home and promised to be of good conduct whenever they are released to the society.

The materials used for the Focus Group Discussion included:

- Notepads and Pencils
- Focus Group Script
- Tape Recorder from the mobile phone (picture session was not allowed in the home)
- Ethical Consent Forms was received from Lagos State Ministry of Women, Youth, Social Welfare and Development in charge of the home.
- Clock for Start on-time and end on-time.
- Refreshments to make the young people feel comfortable

Focus Group Discussion

The stories in the book are designed to motivate young people and get them involved in thinking positively about themselves, others and the world around them in relevant ways. The stories include themes that could help young people to develop personal, social, peaceful, cooperative and emotional values. The stories in this book are also based on core living values. Each story ends with some activities that were used during the FGD to make the participants reflect, imagine, communicate, create, write, artistically express and play with values.

Theme 1 : Cooperation

In the book, cooperation was discussed in the story to show that cooperation is necessary in the community, at home, school etc to have a better living community.

Five responses from the participants during the interactions after reading the book would be reported verbatim as follows:

1. How can you show cooperation in your class and home?

Respondent One: By talking with one another from time to time;

Respondent Two: Listening to other people views;

Respondent Three: Keeping to lay down rules and regulations and respecting people in authority;

Respondent Four: Reporting those that are disobedient to people in authority

Respondent Five: Respecting other people view

2. What can you do to get others to cooperate with you?

Respondent One: Allowing them to speak out their minds

Respondent Two: By not being proud or full of myself

Respondent Three: Allowing other people to participate in activities

Respondent Four: I should be willing to learn from others

Respondent Five: Allowing others to express themselves

Theme Two: Honesty

In the book honesty was shown in the story when one of the characters, a poor man helped the king to recover his stolen golden cup from one of the king's servant that stole it. He was rewarded and other bad characters were sent to the prison. The young people were led to discuss honesty by discussing the following questions.

Activities 1: Tell me some things about yourself

Respondent One: I am a 14 years old girl. I got caught while trying to break into a shop and was in possession of a harmful and dangerous weapon. This is not my first time. I don't have reasons to steal. My daddy is well read and tried everything within his means to bring me up properly but I was influenced by bad friends. I am ashamed and will not steal again

Respondent Two: My parents were divorced and my step mother was maltreating me. I ran away from home to the motor park, where I got involved in bad actions. I came into the correctional home when I was 14 years old and I am now 17 years.

Respondent Three: I am a 16 years old girl. I was raped when I was 6 years by an unknown person while waiting for my parents in our rented one room apartment. Since then I got annoyed and angry with everybody around me. I became disobedient to annoy people around me especially my parents because I feel they didn't protect me enough. I got here because I stabbed another girl.

Respondent Four: I am a 15 years old girl and I ran away from home to Lagos State because my mother is a prostitute. I slept under the bridge and learnt so many vices from there. I was taught to smoke hemp and other harmful drugs. I got to the correctional home when I got caught with dangerous weapon and illicit drugs by government officials.

Respondent Five: I am 14 years old girl and all attempts by my parents to keep me in school failed. I skipped school and classes. My mother later took me to a boarding house. I escaped and after three months of searching, she brought me here as a child out of parental control.

Activity 2: Were you honest with the information you gave about yourself

Respondent One: Yes

Respondent Two: Yes

Respondent Three: Yes

Respondent Four: Yes

Respondent Five: Yes

Theme Three: Responsibility

The following discussion ensued when the question was asked on responsibility.

Activity 1: What are you to do as a responsible child every day?

Respondent One: Help with house chores and take responsibility for my actions.

Respondent Two: Learn to accept my mistake and face the consequences.

Respondent Three: Love my fellow human being and obey people in authority.

Respondent Four : Respect the law of the land and people in position of authority.

Respondent Five: Be punctual in school and not to skip classes.

Activity 2: Who do you blame when you make a mistake and why?

Respondent One: Myself, because I'm learning to take responsibility for my actions.

Respondent Two: People around me. No particular reason I feel I should just blame them.

Respondent Three: My mother because she is supposed to take care of me.

Respondent Four: Myself. I'm fully responsible for my action.

Respondent Five: My friends. They influenced my behaviour.

Theme Four: Tolerance

The book discussed tolerance by revealing that one of the characters in the story did not tolerate the other person which led to her destruction. Few of the young people's responses are as follows:

Activities 1: Write three things you can do to show tolerance

Respondent One: Letting go of wrong doings by other people, not nagging and allowing others to express their views.

Respondent Two: Show love to others, be patient and don't feel superior to others.

Respondent Three: Listen attentively to others, adapt to situation around you and don't have negative views about others.

Respondent Four: Being patient with other people around.

Respondent Five: Don't hold on to other people's mistake, don't get irritated easily and allow other people's view on issues.

Activity 2 : How you can work with the girl or boy who nobody else wants to work with in your class?

Respondent One: Allow him or her to air their views.

Respondent Two: Show love.

Respondent Three: Be patient with him or her.

Respondent Four: Allow him or her to prove himself or herself.

Respondent Five: Respect individual decisions.

The researchers noticed that while the stories were being read the young people were anxious, but during the discussion period it was also discovered that the participants maintained eye contact with the researchers. This was not the case at the beginning; they later assumed a sober look and some of them cried. The story had an emotional effect on them.

CONCLUSION AND RECOMMENDATION

The following conclusion could be drawn from the interactions during discussion with the young people in the correctional homes. Through system reading, the girls were able to see that they are not alone and that several other young people were also passing through or have passed through whatever they are experiencing. Those issues can also be overcome like the characters in the story book read during bibliotherapy. The bibliotherapy intervention by the researchers (librarians) has created awareness that reading story books can help them to learn from the experience of other young people.

Young people were able to make informed decisions to guide them in behaving in healthy way that is not harmful and take responsibility for their actions. The use of bibliotherapy as intervention to help unruly young people in correctional homes has proved that libraries in correctional homes in Nigeria can help create space and place that will meet the needs of these young people emotionally. It has

demonstrated that an effective library within the correctional home could help the young people to refocus and create a safe environment.

The primary function of the librarian on the therapy team, as in other areas of library service, is based upon cognizance of the needs of the community and of individual reader and upon knowledge of books available to meet those needs. Therefore, school libraries should be an important institution in the implementation of bibliotherapy, and the task of a school librarian in this process should be to help each individual child to find "his book". Department of Library Studies in universities should introduce courses in their curriculum (where absent) that will help produce librarians who are "interested and competent" in this important field. This is because school librarians need to know the purposes and objectives of having constant bibliotherapy sessions with students in need of such interventions so that they don't end up committing crimes that would lead them to correctional homes.

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Nazarbayev Intellectual School Libraries: The Development of Functional Literacy and Reading Skills

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ABSTRACT

Nazarbayev Intellectual Schools (NIS) are a testing site for piloting innovations in teaching and learning in Kazakhstan's formal education system. Fostering the development of multicultural, strong-minded students is a key component of an NIS school, and the library certainly plays an important role in the formation and development of students. This article presents the practical knowledge of NIS librarians which was gained through such practices as the use of applied gaming methods to promote reading, the development of information and functional literacy, the development of research skills and the development of functional literacy.

School library activities should not have limitations; the school library is a center for reading, creativity and intellectual development. By using new methods, constantly improving and maintaining a friendly atmosphere, the school library will be able to maintain its relevance for students. Additionally, the school librarian will act as a guide for students as they explore the worlds of reading, imagination and academic achievements.

Keywords: Kazakhstan, Nazarbayev Intellectual School, NIS, Functional Literacy, Reading, Methods, Teacher-Librarian, Library Activities, School Library Role, Reading Projects, Reading Promotion, Research Skills

FROM SCHOOL LIBRARY TO INFORMATION MEDIA CENTER

The modern school library is the informational and intellectual center of the school, a platform which allows for a more comprehensive approach to educating students and a world of creativity which aids students in their manifestation as an individual.

Within the framework of the state program "20 Intellectual Schools", Nazarbayev Intellectual Schools and their respective libraries were founded in the Republic of Kazakhstan.

"The Intellectual Schools were designed as an experimental platform for the development, monitoring, research, analysis, introduction and implementation of modern models of educational programs. These programs are divided into levels, from: elementary school (including pre-school education and training), primary school to high school. To then introduce the modern forms of governance in education, and to develop academic freedom and autonomy for the implementation of innovative educational programs and research projects, on January 19, 2011, by the Law of the Republic of Kazakhstan and through recognition of Nazarbayev University, the "Nazarbayev Intellectual Schools" and "Nazarbayev Fund" was adopted into practice."

The given status implies a right for the schools to approve their own educational curricula, establish requirements for entrance exams, monitor ongoing student progress, and work toward interim and final certification as well as other goals. The principle of academic freedom accelerates the development and successful implementation of new programs for the modernization of secondary education.” (Nazarbayev Intellectual Schools, n.d.).

The libraries of NIS schools face the difficult task of moving away from established stereotypes and raising the purpose and function of the library to a modern, international level. The main goals of the libraries are to create an enabling environment for the development of intellectual potential and research skills of students, implement new information technologies, integrate informational literacy and academic studies, provide professional development for NIS librarians, and conform to an international model for school libraries.



According to the State Program for the Development of Education of the Republic of Kazakhstan for 2011-2020, a program, which aims to form intellectually, physically and spiritually, developed citizens and satisfy the country’s educational needs through effective schooling, one of the indicators of success for this process is the formation of functional literacy of students.

THE FORMATION OF FUNCTIONAL LITERACY AND READING SKILLS IN STUDENTS

Increasing reading literacy is one of the urgent tasks not only for Kazakhstan, but also for the entire world community, as evidenced by the results of a study of the Program for International Student Assessment (PISA) which compared 15-year-old students from all over the world. In 2009, according to the reading test results from 65 countries, Kazakh students took 62 place. To address this problem, various methods are used in the libraries of Nazarbayev Intellectual Schools, including: “Keyword Hexagon,” article summaries, graphical organizers, "Darkened poetry" and more. These methods were learned at advanced training courses given by universities in the United States of America, Singapore and Finland as well as through participation in the international conferences of IFLA and IASL. Additionally,

seminars and workshops were annually held at NIS schools by inviting international library experts from South Korea, Malaysia, and Russia. These courses allowed for NIS libraries to gain different perspectives through the experiences of international librarians and to develop their own potential as school librarians. Upon completion of such trainings, teacher-librarians of Nazarbayev Intellectual schools actively share and present the gained knowledge throughout the country. In order to improve public school libraries and help them to implement new methods of developing reading skills and functional literacy, during the period from 2013-2017, 225 training seminars were conducted for 3,585 librarians of Kazakhstan's public schools.



To promote reading in the school library, active play methods of working with the book are very relevant: "Find the Title of the Book," "Guess the book," "Books Conquer the World," "Book Bingo," "Book Dingo" and "Book Search" are some of the activities used. By participating in such activities, students receive a sense of satisfaction and motivation as well as a freedom to express themselves. In order to popularize books and encourage students to read, different types of library activities are held, such as: "BiblioSumerki," "Catch Reading for Lunch," "Library without Borders," "Book Slam," "Teacher-Doubler,"

"Sweet Quiz," and "1,2,3" among others. Such activities provide an opportunity for teacher-librarians to study the psychological characteristics of students, develop their communication skills and identify any creative inclinations they may have.

Actions and Projects to Attract Students to Reading

Across the libraries of Nazarbayev Intellectual Schools there are reading projects, including: "Booksrossing," "100 Books Recommended for Students of NIS Schools," DEAR, READx, "Reading time," "Book Surprise" and more. The main goals and objectives of the projects are to: develop reading skills and the literacy of students, form skills for functional reading, develop critical thinking and promote books.

In 2012, the Nazarbaev Intellectual Schools Network launched the "Bookcrossing" reading action for the first time. This is an annual social event where books are given to the libraries of rural schools and orphanages. The project takes place on the eve of the Day of the First President on December 1st, and on Independence Day of the Republic of Kazakhstan, December 16th, in all NIS schools. During the period from 2013-2016, the total number of transferred books was 24,412 copies. Each year, the "Bookcrossing" becomes more popular, acquires relevance and importance, and continues to spread to more public and rural schools across every region of the republic. This project has had a positive effect on attracting the public to reading.



In the Nazarbayev Intellectual Schools one of the most successful and long-lasting programs to promote reading, the "Book Start" project, has begun. The project, which originated in England in 1992, has been implemented in such countries as Belgium, Germany, Scotland, Sweden, Denmark, Japan and South Korea. The purpose of the "Book Start" project is to involve parents in developing children's interest in books and reading and establish close relationships between parents and toddlers by reading illustrated books.

Both the "Bookcrossing" and "Book Start" projects are charitable initiatives, wherein students and teachers of Intellectual schools give personal books to another member of the school community. As such, planning and preparation for these projects takes effort and a significant amount of time. Librarians organize the collection of books, the advertising of projects and the monitoring of shared opinions from the school community. Representatives of the school's self-government, which includes students and their supervisors, are of great assistance in these projects.

One of the forms and methods of the book promotion and reading support is the "Reading Time" project. This is a daily, 20-minute break, during which all students and school staff stop what they are doing and read books. Reading Time is a great way to work out the habit of reading for students, making reading books a daily necessity. The daily practice of the "Reading Time" project takes place in all of the Intellectual Schools at different times, with each school choosing the best time according to their needs and schedule. During this time, all staff and students postpone any activity and read for 20 minutes, and so many schools opted for a long break. Through the implementation of "Reading Time," students realized that they could read the books that they did not have time to read at other times, which encouraged personal choices for students and staff alike.



A particularly interesting project, which received great success upon introduction to Nazarbayev Intellectual Schools, was the READx Project. The READx project is an inspiring presentation about discoveries in reading. Once a month, in the assembly hall a large audience gathers in which all students and school staff are invited to listen to the speeches of 5 READx participants. Anyone who is part of the school community can be a speaker for the project; for example, a teacher, a student, a parent or an administrator, as long as they are ready to share their opinion of the book they have read. The READx project

encourages students to read books, broadens their reading interests, creates the attractive image of a reading teenager in the eyes of their peers, successfully supports reading lifelong reading habits and develops public speaking skills.

The civil education of the younger generation is one of the most important tasks for an NIS school. Throughout the network of Nazarbayev Intellectual Schools, the MEMORO project has started to run. The project, which was founded in Italy, operates in 17 countries, including: Spain, Catalonia, Germany, Japan, France, the USA and South Korea. The MEMORO NIS project is an opportunity for the younger generation to become acquainted with the history of their country. Through each separate story, there is a general picture about the life for the older generation. The "Collectors of Memories" are NIS students who shoot videos and get a chance to meet with the people of older generation. Creating the video of memories then becomes a vehicle for mutual understanding and communication between generations.

As for the project "100 Books Recommended for Students of Nazarbayev Intellectual Schools," well-known literary works in Kazakh and Russian as well as foreign classics and masterpieces of world literature are compiled in list form for students. The project is aimed at supporting trilingual learning, studying history and fostering tolerance for other cultures through reading literature in foreign languages. Promotion of the project during the academic year is carried out through a variety of activities, for example: creative and literary evenings, reading clubs, exhibitions, games, quizzes, school theaters and video reviews. At the end of the school year, according to the results of all the activities held, the most active readers are awarded with the



"Reading Diplomas." The implementation of such projects is now spreading to other pilot and innovative schools.



To develop a culture of reading, leisure activities are promoted for NIS students such as reading clubs, creative clubs, and family reading clubs. The involvement of parents in the work of reading clubs has become a challenge for school librarians. Initially, family reading clubs were created for the primary schools, at which each invited parent read and discussed the book with students. This practice had a warm reception from the children and it encouraged them to invite their parents to reading clubs with greater frequency. Each student wanted to see his or her parent as the next adult to read a book for the enjoyment of the

class. Following the great success of the project at the primary level, parents became frequent guests in reading clubs for secondary and high school students. Involving students in the clubs allows them to organize their leisure time at a new level, to promote their self-realization and to inspire creativity.

A Nazarbayev Intellectual School library is not only a part of the educational process and directs leisure reading, but is also the resource base and information center of the school. In order to keep members of the school community informed, organize and maintain professional contacts, share the work of the library and reach a large audience of users, the libraries of Nazarbayev Intellectual Schools have created Web sites as well as social networking pages like Facebook and VKontakte. The use of interactive technologies in the work of the school library increases the effectiveness of the pedagogical activity of the school librarian. Librarians, using the Web 2.0 services, create incredibly beautiful and bright virtual exhibitions of books on various topics

Currently, Intellectual School libraries are informational and cultural centers actively involved in the life of schools, by organizing information as well training and leisure activities for all types of library users. Through the involvement of students, parents and teachers, the libraries have earned a reputation for being an accessible and approachable center of learning within the NIS schools.

The support and guidance of reading is a strategically important element of the educational process, a tool for increasing intellectual potential as well as creative and social development in students. In this century of new information technologies, when significant changes in education are sure to come, the work of the teacher-librarians of Nazarbayev Intellectual Schools is aimed at forming reading skills, functional literacy, research skills and critical thinking. This will be done through various forms and methods, to form a moral, intellectual, and literate multicultural citizen who is also a patriot of their country and ready for lifelong learning.

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Repositioning School Libraries towards Attainment of Learning without Borders

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ABSTRACT

The internet has revolutionized the global world system. Every aspect of the globe is under the influence of information and communication technologies. The educational sector is experiencing a paradigm shift towards a borderless economy and school libraries occupy a central place in the actualization of sustainable education. The paper highlights the need to reposition school librarianship to ensure actualization of learning without borders, the significance of school libraries in learning without borders agenda. Repositioning of school libraries requires addressing personnel issues, ICT-related issues, funding, extensive lobbying and advocacy, partnership with NGOs and stakeholders in educational sector, recruitment of qualified library staff and re-training of existing school library staff to meet global realities.

Keywords: Advocacy, ICTs, School Librarianship, Personnel

INTRODUCTION

School library is an independent organ that provides all the resources for the child's proper educational growth (Attama, 2004). IFLA school library guideline (2015) defines school library as a schools physical and digital learning space where reading, inquiry, research, thinking, imagination and creativity are central to students' information-to-knowledge journey and to their personal social and cultural growth. This physical and digital place is known by several terms (e.g school media centre, centre for documentation and information and library learning commons, but school library is the term most commonly used and applied to the facility and functions.

School library is also known as media resource centre, media centre, learning resource centre, multimedia centre, school media centre among others. Irrespective of the variety of names, a school library is information resources centre found in primary, secondary and teacher training colleges. It is an information centre established in the school environment and it is expected to provide information services for teaching and learning in the schools. The school library not only provides information materials but also provides guidance and a conducive atmosphere for teaching and learning.

Harrods Librarians Glossary (2005) sees a school library as an organized collection placed in a school for the use of teachers or pupils but usually for pupils. It may comprise of books and other materials, electronic resources and personal computers and be in the care of professional librarians, teacher, or teacher librarian. The school library act as a galvanizing force that leads to the provision of quality education. It is an inexhaustible information resource where teachers, pupils can go unrestricted to have access to information they need (George, 2011). Freeman (1975) summed up the goal of the school media centre as service offering members of the community, learning experiences that will lead them towards a fuller and more rewarding life.

In the 21st century, attention is focused on the student and what the student can learn. Education is learner-centred and school libraries enhance this trend to help educators to achieve their objectives. The standard for learners requires school libraries to help the learners use skills, and resources and tool to:

- Inquire, think critically and gain knowledge;
- Draw conclusion, make informed decision, apply knowledge to new situations and create new knowledge;
- Share knowledge and participate ethically and productively as members of democratic society;
- Pursue personal and aesthetic growth (Encyclopedia of Library and Information Science, 2010). School library in the new millennium has become information centre because of its method of packaging information through the use of ICT (Daniel, 2000).

In recent times, the school library is a media resource centre where the book and non-book materials are provided. Emphasis is now placed on the provision and dissemination of information through new media (application of information and communication technology). The school library, not only stores information but is also concerned to a large extent with the provision of space for learning and environment for teaching and learning. The school library is a learning laboratory that plays the role of bringing teachers and students together to explore the wealth of knowledge made available in the library. The traditional school library only collects and stores books but the modern school library makes effective use of the new media and ensures that the vast resources available in school libraries are utilized effectively by both students and teachers. As a laboratory, teaching and learning takes place within the confines of the library. The emphasis is on modern philosophy of education that is learner-centred. It emphasizes individualized instruction and the use of multimedia in teaching and learning.

Elaturoti (1990) lent credence to the present educational system, when he stated that modern philosophy of education recognizes an educated individual as one who knows how to learn, to think and to use ideas as opposed to one who has memorized facts. This implies that instructional methods within the curriculum of any educational system that is guided by this philosophy will of necessity stress individual learning and independent study, and students having access to multimedia to meet their individual needs. According to Salawu (2008) learning without borders involves international or global integration of the society. It provides a learning environment that makes a student to participate and contribute towards development of the world. Learning without borders is about internationalizing learning. It is the conscious integration of global awareness in student learning. In the process of learning without borders or internationalizing learning, the students are expected to identify, describe and explain global and intercultural conditions and interdependencies. The students engage in critical thinking that embraces analysis and interpretation of global and cultural issues. The students are also expected to learn effective communication with members of other cultures especially in a fast changing and globalised society.

Our world is being changed dramatically by the surge in technology and communication and the world is changing, and there is evidence that we are entering a “post-international environment” (Davy, 2011). In the same vein, libraries are continually being influence by the changes of technological development and school libraries are no exception. Globalization and technological advances also affect the ways in which education is provided (Australian school library Association, 2013). As noted by Sauer (n.d.), there are many borders when it comes to traditional library services, whether that border is caused by forcing the user to come into a building in order to have their question answered or if it’s that large pieces of wood we call a reference desk creating barrier between the librarian and the user, borders are all around us. However, with new and emerging technologies, the dynamics of how information is accessed and utilized has changed (ASLA, 2013). Nevertheless, in the midst of the technological transformation cutting across the globe, it is pertinent that school librarianship must be repositioned to align with trends of contemporary society. This paper therefore is aimed at exploring how school libraries can be repositioned to ensure that learning without borders is actualized. It will highlight the role of school libraries in learning without borders, strategies for repositioning school libraries towards achieving

learning without borders and the challenges of learning without borders in Nigeria and other developing countries.

THE ROLE OF SCHOOL LIBRARIES IN LEARNING WITHOUT BORDERS

The role of school library in the 21st century is succinctly captured by Rosa and Storey, (2016) as:

- i) Offering a full range of print and electronic resources that provide equal learning opportunities for all students regardless of the socio-economic or the educational level of the community;
- ii) ensuring that 21st century information literacy skills, dispositions, responsibilities and assessments are integrated throughout all curriculum;
- iii) serving the schools student, staff and other members of the learning community.

IFLA School Library Guideline (2015) identified the following roles of school libraries within a school include the following:

- Resource-based capabilities: This is the ability and disposition related to seeking, accessing and evaluating information and the use of information and communication technology to access information.
- Thinking based capabilities which is the ability of critical analysis
- Knowledge-based capabilities: This is the ability related to research and enquiry
- Reading and literacy: This is ability related to enjoyment of reading and reading for pleasure.
- Personal and interpersonal capabilities: This involves the abilities related to social and critical participation in resource-based enquiry and learning about oneself and others.
- Learning management capabilities entails abilities and depositions that enable students to prepare for, plan and successfully undertake a curriculum based inquiry unit.

A school librarian plays a leadership role in developing these capabilities. The roles of school libraries stated above enhance the capabilities of globalization of learning without borders. The roles of the school library is aimed at enhancing information literacy capabilities of the students, stimulate reading habit, curiosity, creativity orientation towards learning, explore diverse topics, creation, representation and sharing of knowledge, technology, and access to cultural, professional and educational events. The school library provides space for physical and digital access to resolves and support students, teachers and the learning community. A school library is important to education and learning because it helps students to have knowledge to contribute towards the development of the society and the world.

There is a paradigm shift from the arm chair librarian to information professional who provides information services to the clientele in different locations at the same time (Adebowale, 2010).

STRATEGIES FOR REPOSITIONING SCHOOL LIBRARIES TOWARDS ACHIEVING LEARNING WITHOUT BORDERS

Repositioning of school libraries requires addressing the following pertinent issues, especially with references to developing countries.

i. **Personnel issues:** addressing personnel issue in school librarianship is of paramount importance to ensure learning without borders is achieved. Competent personnel should be recruited in school libraries. Competency is not just in theoretical and practical-based librarianship knowledge but must be combined with ICT library skills which are key driver of the digital economy. For school libraries to effectively interact with other institutions and information agencies there is need for such libraries to be managed by ICT- compliant libraries.

ii. **Extensive lobbying and advocacy:** managers of school libraries should be ready to adopt and apply intensive lobbying and advocacy as means to attract government attention as well as donor agencies. Positioning school libraries towards borderless learning cannot be realistic, if school library managers do not lobby and advocate for school library funding. It is important that school librarians that are good strategist should be engaged to lobby and advocate for school libraries as this will help to attract government attention and other donor agencies.

iii. **Partnership with non-government agencies and stakeholders in educational sector:** Library managers in school librarianship should endeavor to partner with NGOs and stakeholders in educational sector as it will help in attracting support from these NGOs and stakeholders.

iv. **Retraining of existing school library staff:** the school library association of different nations should organized workshops, forums and conferences as platforms for training school librarians in the areas of ICTs application to the provision of school library services as means of meeting global realities.

v. **Promote access to new content:** school libraries can promote access to new content as means of ensuring that learning without borders is actualized. Social media such as Twitter, Google, Youtube, wikis and flickers can be maximally deployed in school librarianship as it has capacity to promote learning without borders. In this case, student, pupils and teachers can easily have access to new content without being in the library physically.

vi. **Through embedded librarians programme:** according to Matara, Coffey & Kushkowski (2010), the increasing availability of online access means that information resources are no longer confined within library walls and librarians need to rethink how their constituent's information needs are being met. In other words, with embedded librarians programme implemented in school librarianship, it would help to ensure that school libraries go beyond the traditional library operations and migrate in the new physical and virtual library services. It thus implies a paradigm shift from the traditional library service to a more innovative and creative virtual library services where physical barriers are eliminated.

vii. **Collaboration with other agencies /ICT Services providers:** in other to actualize the goal of repositioning school libraries towards learning without borders, collaboration among information providing agencies and ICT services providers is a necessity. As noted by Yates (n.d.), collaboration is a key to enhanced library role in learner engagement which also falls within learning without borders.

THE CHALLENGES OF LEARNING WITHOUT BORDERS IN NIGERIA AND OTHER DEVELOPING COUNTRIES

1. **Lack of skills:** The school librarian lacks the skills to select, acquire and disseminate information materials that will equip the students for globalization. There is no staff development because of economic recession and poor leadership. It is important to note that most schools do not have librarians.

2. **Lack of infrastructural facilities:** learning without borders cannot work without utilization of information and communication technology by teachers, students and the school librarian. In Nigeria the bandwidth is very low and the electricity power generated is less than 2,500 megawatts, the facilities already put in place are deteriorating because of economic down turn. Kalu (2017) believes that because of Nigeria's inability to engage in productive ventures that we may not go out of recession very soon.

3. **Lack of interest in the development of school libraries:** The government in Nigeria and other developing countries do not give adequate attention to the development of school libraries. School library does virtually not exist in most schools. These schools that have books keep them in boxes. There is no serious legislation directed to the development of school libraries in Nigeria.

4. **Funding:** In Nigeria, most of the school libraries are owned by the various states of the federation, in fact there is no revenue allocation for the development of school libraries. Even when Nigeria was buoyant, there has never been any serious effort towards the development of school libraries. The Tertiary Education Trust Fund (TETFUND) only provides funds for tertiary institutions in Nigeria.

5. **Conformity with global standards copyright and use of information material in the ICT era.** The various schools are not involves in acquisition of library materials through online services, so they are not aware of guidelines required in acquisition. The laws available in Nigeria like LRCN laws, National Library of Nigeria law are not implemented with the result.

6. **Lack of exchange programmes and detailed curriculum:** The developing countries lack the resources to attend exchange programmes to improve the knowledge of the students. The curriculum of schools is not detailed so as to include progarmmes that will expose students to globalization.

7. **Lack of ICT equipment and well equipped libraries:** The few school libraries available are just book stores.

CONCLUSION

School libraries is a pivot on which effective learning at the early stage of a child life resolves, modern infrastructural facilities needs curriculum that reflects 21st century need and school librarians that a possess ICT skills and competencies should be harnessed for achieving learning without walls.

RECOMMENDATIONS ON REPOSITIONING SCHOOL LIBRARIES FOR LEARNING WITHOUT BORDERS

The role of school libraries in implementation of learning without borders or globalization cannot be over emphasized. It has become necessary to develop and teach skills that will help students, teachers and librarians to have access to information resources. The teachers and students need knowledge of information literacy skills to enable them have access to vast knowledge and information materials that will enable them fit into any society and contribute their quota to the development of the world. The school librarian requires skills that will facilitate utilization of information and communication technology in the selection, acquisition, storage and dissemination of information resources that will encourage globalization.

The government in developing countries should use the tax payers money to provide infrastructural facilities that will facilitate access to current information and effective learning. The bandwidth should be increased and the megawatts for electricity should be increased. Poor power supply is damaging the few facilities available for learning in libraries. The national assembly in Nigeria should make laws that will facilitate provision of infrastructural facilities and the law needs to be implemented and defaulters should be punished accordingly.

Funds should be provided for facilities and provision of current information materials in school library that will help in teaching and learning in schools. The government should make a law that empowers Universal Basic Education Board, to make revenue allocation, for developing of school libraries. There is need to implement the law and the government officials who divert public funds should be punished as a deterrent to others.

The librarians and other information providers should conform to global laws guiding use of information resources to enable them have access to vast library materials for learning. The Librarians Registration Council of Nigeria (LRCN) should be alive to its responsibility of ensuring that librarians are qualified and have the capability of providing services to users.

The curriculum in developing countries should be reviewed. There is need to incorporate critical thinking skills, ICT skills and culture of other societies to facilitate learning without borders. There is need for exchange programmes. The students need to engage in exchange programmes that will enable them know what is happening in other societies.

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How Junior High School Students Spend Time in a Japanese School Library during Their Lunch Breaks: A Focus on the Role of Bookshelves

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ABSTRACT

The purpose of this study was to investigate, through fieldwork, a school library as a gathering place for Japanese middle school students. We predicted that students would browse alone, silently. The research used cases studies based on a micro-ethnography method taken from observation data. Data were analyzed from three points of view, informal, public, and gathering, which was referred to as “the third place.” Oldenburg (1989), on which the study was based, focused on the role of bookshelves. We determine that bookshelves provide students with the public place open to all. Second, we suggest that bookshelves serve students as an informal place to spend time alone. Finally, while some students enjoy conversations with friends while among the shelves, others avoid interaction by using the shelves as barriers. Therefore, the bookshelves are not always a gathering place for a students.

Keywords: School library, Library as Place, Bookshelves, Junior High School Student, Field Research

INTRODUCTION

Oldenburg’s ‘Third Place’

Some have suggested that we use “library as [a] place” (Wiegand, 2003) in reference to Oldenburg’s (1989) “third place” for public libraries in America. Oldenburg assumed the home to be one’s first place, working location as his or her second place, and informal public gathering places as the third places. In short, third places are designed as places for people to spend their time, not only physically but also socially and psychologically.

Recently, several studies have focused on school libraries as a “third place.” For example, Estill (2006) analyzed the behaviors, relationships, and interactions between students and librarians at the high school featured in a TV series that *Buffy the Vampire Slayer* was shown from 1997 to 2000 in America. She concluded that school libraries are not warehouses of books, but rather are informal place that achieve a suitable fit between a sanctuary that serves as a community for students and a site to host activities to create community. Although Estill was not studying a real school library from a TV drama, it could be taken as a herald of the case studies presented here.

Kuno (2011) interviewed Japanese high school students about the main activities they engage in at third places. Then, she analyzed ordinary classrooms that are public places controlled and functioning as sites of evaluation by teachers. Contrary, Kuno suggested that school libraries are a private place where certain peer groups can open up and talk to each other.

However, since school libraries are open to all students, they remain a public place that any student can visit without a specific purpose of use or need, so long as they obey the rules. At the same time, every student may freely choose where he or she browses, which books they take an interest in, and how they read books in connection with the role of bookshelves, including interactions with other students in the library.

For the above-mentioned reasons, it is possible to see a school library as a third place in the spirit of Oldenburg’s work and in contrast to ordinary or special classrooms that have the purpose of serving as places for lessons, as an infirmary, as a counseling room, or as a place for private meetings. In short, it is

necessary to reconsider school libraries not merely as facilities to use, but also as places for students to spend their time while at school.

The Role of Bookshelves in School Libraries

A school library can be seen as a third place, not only to create physical places for students to gather, but also to provide a social and psychological place where students get engrossed in books (Masuko, 1999). In particular, bookshelves play two roles in influencing students, in relation to the books' arrangement and as space partitions (Masuko, 2011). In other words, the former provide students with a place that enables free browsing, while the later serves students as a place to spend their time. Therefore, it is necessary to reconsider the role that bookshelves play among middle school students.

The Issues of a School Library and Its Status as a Third Place

There are three research issues related to school libraries as a third place focusing on the role of bookshelves. First, we must reconsider libraries as public places, not as parts of existing school facilities, so that we may consider students' behaviors while they freely browse the bookshelves. This is because browsing popular books that are of private interest to students is a different behavior from searching for books for studying. Since this study is focused on third places, we paid attention to students' behaviors while browsing freely.

Second, in connection with the first consideration, it was necessary to examine a school library as an informal place. Sturm (2008) suggests that libraries might be seen as "secret spaces" that provide students with a sense of hiding, avoiding, or getting engrossed in books, in order to defuse the inevitable tensions of school. Hence, we investigated how students use the bookshelves in this way.

Finally, based on the above, we needed to understand bookshelves as gathering places where students interact. Surely, since a school library is a public place open to every student in a school, many students visit it to for a variety of purposes. However, Cesari (2014) has identified that we must monitor the interactions between students, including those that take place in "difficult- to-monitor areas" of school libraries, in order to ensure their proper development. In response to this argument, the present study examines adolescents' interactions among bookshelves.

As the above indicates, the purpose of this study is to reconsider a school library as a third place and to focus on the role of bookshelves by clarifying how junior high school students spend their time in school libraries. The research described here can also provide help with efforts to understand adolescents' uses of school libraries.

METHOD

Fieldwork was conducted at a junior high school in an urban area of Honshu's Kanto district. It spanned eight days in September and October 2016.

We chose this study duration based on our prediction that students who are in periods of physical and psychological growth use the school library to adjust themselves to typical school life after a long summer vacation. A total of 130 students (in grades 7–12) visited the school library; they and a teacher librarian (TL) cooperated in this study. The school in this study is a combined junior and senior high school. Among those studied here, 80 were middle schoolers (grades 7–9), as indicated by their uniforms.

Data Collection

This study observed students' behaviors on eight days at the school library. For seven of these days, observations were made during the lunch break; the other day's observation took place in the afternoon. The library was recorded using two to four video recorders, which were set on the diagonal inside the library, in order to capture the situation. Field notes complemented these videos, to aid in the understanding of students' visual lines and the library's atmosphere at the time. In addition, we conducted

an interview with the TL before and after each observation, for about 30 minutes, to confirm how focused the students normally were.

Data Analysis

This study evaluated the public, informal, and gathering elements of the three natures of third places as the framework for analysis. Then, based on these different views, we analyzed how students spend their time in a school library, based on observation data focused on the role of bookshelves. Since it is possible for a student to choose to browse between bookshelves alone, to allow him or her to pass time freely without any utterances or interactions, we adopted a micro-ethnography method (Minoura, 2011; Sibayama, 2008). This method allows researchers to understand daily students' lives and to describe the observed cases comprehensively.

We secured permission for the participant observation after several discussions with the TL. Further, video recording was accepted, to protect students' privacy. Finally, all names used in this study are pseudonyms.

RESULTS AND DISCUSSION

Context of the Field

We can describe the school library, mainly focuses on its bookshelves, as follows. The library is in the first basement level, just below the school's main entrance. It consists of several spaces/areas that serve as learning rooms, in addition to a reading room and a circulation counter.

In particular, the bookshelves across from the circulation counter are the most popular with the students, as these feature collections of works by famous authors and popular series, such as J. K. Rowling's Harry Potter books. These shelves are referred to as the "popular bookshelves." The popular bookshelves are set to the wall and located near four large-size reading tables, with four chairs each. There is a large bookshelf that is positioned at right angle to the popular bookshelves divides the doorway and the reading space. There are also 30 reading spaces/carrels for personal use. A full-time TL who has worked at the school for more than 20 years staffs the library, but there is no school librarian (SL).

The Role of Bookshelves as a Public Place

We chose to observe an eighth grade boy, Kiyoshi, for the following reasons. Kiyoshi visited the library six out of seven times during the observation period. In addition, the TL told me that he came to the library as soon as the lunch break began almost every day. Further, Kiyoshi browsed the same bookshelves each day, those with the popular books. In short, we wondered if selecting and using the popular bookshelves frequently had special meaning for Kiyoshi.

The following observation occurred at one of the high-traffic areas in the library a little after 1 PM, when four junior high school students and the TL had a meeting at the large reading table near the bookshelves.

Case 1: Is the Public Place for the Students?

At first, Kiyoshi went straight to the popular bookshelves (1-C). However, as the popular bookshelves also attract other students besides Kiyoshi, who uses them on a daily basis (1-A), it can also be said that these shelves are familiar to many students. In addition, there was another reason for their popularity. The popular bookshelves are close to the door and in front of the circulation counter (1-B), which makes them not only easy for students to access, but also conveniently located for checking out new books.

In that sense, the bookshelves played an important role for a student like Kiyoshi, who spends his time alone in the public place, and many other students.

The Role of Bookshelves as an Informal Place

As shown in Case 1, although we focused on the popular bookshelves, additional considerations were given to a large shelf for journals or newspapers, which is positioned at a right angle near the doorway. This large shelf plays a role in separating the noisy doorway, filled with students coming and going, from students who wish to browse and read books calmly. In short, it is a limited place, like a cozy corner, in the school library, despite being located right in front of the circulation desk.

In many cases, Kiyoshi visited alone early in his during lunch break and read books silently. Then, we wondered if Kiyoshi visited the library not only to read books, but also to spend time on his own. The following example highlights this.

Case 2: Is It an Informal Place for Students?

We observed that Kiyoshi moved a chair, blocking off the passage (2-A), and crouched down in front of the bookshelves (2-B). So, Kiyoshi seemed to see the area not only as one where he could ensure a place to spend his time, but also prevent other students from coming to the popular bookshelves. He may or may not have done this of consciously.

In addition, in a corner where surrounded bookshelves, as Kiyoshi sat on the chair with his back to the circulation counter (2-C), his field of vision was open to the bookshelves only (2-D). In short, Kiyoshi monopolized the place on the shelves where the popular books were collected and spent his time reading alone, despite this being a public place open to every student. This shows that the bookshelves played a role in providing him, a student, with an informal place.

The above could not be seen as a use of a library as a gathering place. In the following section, we examine how students interact with each other, focused on the bookshelves, which created a corner in front of the circulation counter.

The Role of Bookshelves as a Gathering Place

There were some students observed having a nice gossip with books in their hand, while others spent their time alone in the library. Some researched books on a PC, or asked the TL about the books they were looking for. Akira, who appears in this section, is one of the boys we observed.

Akira is in the same grade as Kiyoshi, for they also have worked together as library staffs, they knew each other's face. Though it is possible that the two students interacted, the case described below is based on our observation data. Case 3 happened while Akira was looking for the book he wanted to read.

Case 3: Is It a Gathering Place for the Students?

At first, we observed that Akira was going to go the bookshelves that house the collected popular books (3-A). However, he hesitated and abandoned his plan to go to those shelves (3-B). Then, Akira took a book from another bookshelf and left the library (3-D). As mentioned above, the popular bookshelves play a role in providing all students with both public and informal places. Nevertheless, Akira avoided the popular bookshelves where Kiyoshi was (3-C). We noticed that Akira avoided all interaction with Kiyoshi.

There was little chance that Kiyoshi noticed Akira's gaze focused on the role of the bookshelves in the library (3-E). This is because Kiyoshi remained sitting with his feet toward the popular shelves, sending proximal cues implying his desire to avoid interaction with others who might want to use the popular bookshelves.

Based on the above, we can see that the bookshelves also play a role in helping students to avoid interactions and visual lines with each other, while also providing all students with a gathering place to share time with friends. Additionally, as these cases show, the placement of the bookshelves was arranged not to create a blind area. While Cesari (2014) argues that "the library's circulation desk should be centrally located with clear visibility to all areas, allowing for close monitoring of student behavior", it is indicated that even the bookshelves in easy-to-monitor areas may create not only public and informal places but also places like "secret spaces" (Sturm, 2008) where students could spent time alone and avoid interactions with others.

CONCLUSION

At first, the bookshelves that house the popular books collection served the role of not only being controlled by the TL, as it was arranged in front of the circulation desk, but also allowing all students to easily access and look at it, given its proximity to the doorway.

In short, the bookshelves provided students with a public place that was open to everyone in the school library.

Second, related to the individual interests or purposes for reading and borrowing any kind of book, the shelves also play a role in providing student with an informal place to spend time alone.

Additionally, the browsing behavior among the bookshelves allowed students to narrow their visual field and to avoid other students' eyes. Therefore, the bookshelves played a hand in providing students with a more informal place where he or she could browse or spend time alone, despite being in a public place where every student could visit.

Finally, the bookshelves provided students with a gathering place to enjoy conversations and interactions with friends, serving as both public and informal places.

Despite the above, if a student wanted to, he or she could use the space or the corner created by the bookshelves to spend time alone and avoid interactions with others, suggesting that bookshelves do not always play the role of a gathering place.

When we evaluated a school library from the viewpoints of public, informal, and gathering spaces, we found that it particularly it needed to be examined carefully in terms of the gatherings taking place. While it is certain that a school library is a public place that enables students to gather, we must reconsider the idea that a school library works as Oldenburg's third place, since it is not always a gathering place, as this research has shown, The bookshelves also helped students to avoid interactions and each other's visual lines.

In conclusion, this study raises several issues. In particular, as the research was focused on only one schoolboy and his interaction with an acquaintance, it is necessary to examine a variety of behaviors and genders.

NOTE: Provided that the study was corrected and improved master's thesis by the author after it was submitted and accepted for Graduate school of Education, The University of Tokyo in January, 2017.

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Resource-Type Descriptions For School Library Resources: Australian and New Zealand school library staff prefer user-friendly classifications to RDA and GMD vocabularies

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ABSTRACT

Descriptions of *resource type* assist students to discover resources. Under AACR2, bibliographic records contained the general material designation as a "first stop" in identifying typeness. Under RDA three controlled vocabularies describe content, media and carrier type. These went some way to address criticisms of GMD, however the language of the RDA terms is criticised as being unintuitive to users, and dispersing the description over three facets presents its own problems. In this context, libraries struggle to decide how to represent typeness to their end-users (Ou & Saxon, 2014). The Schools Catalogue Information Service (SCIS) provides high quality, consistent MARC records to schools internationally, including over 93% of Australian schools. SCIS ceased cataloguing of GMD in 2017 after four years of cataloguing records containing both GMD and RDA values. In 2016, SCIS surveyed 1212 Australian and New Zealand school library staff as a first stage in researching an alternative vocabulary incorporating user-friendly type (UFT) terminology. Results indicate that school library staff preferred UFTs to GMD and RDA terms and, where applicable, preferred terms where resource format is qualified in parentheses.

Keywords: Resource Type, GMD, RDA, Descriptive Metadata, School Libraries

INTRODUCTION

"What types of resources do you have in your school library?"

Typeness is an intuitive and ubiquitous quality of bibliographic resources, used to assist in finding, identifying, selecting, and locating resources. However, library records often describe typeness through a range of controlled and uncontrolled vocabularies, some of which do not offer intuitive and user-friendly descriptions appropriate to the school library (eg Hider, 2009; Panchyshyn, 2014).

The Schools Catalogue Information Service (SCIS) (<http://www2.curriculum.edu.au/scis/home.html>) creates bibliographic data for educational and literacy resources used in schools, and offers a subscription service providing access to its database of almost 1.5 million records. Subscribers, including almost 94% of Australian schools, import SCIS's MARC-21 records into their local library systems. In 2017 SCIS is undertaking a full revision of its online services, part of which includes exploring best-practices for discoverability of resources according to their various types.

In early 2016, SCIS conducted a survey of Australian and New Zealand school libraries, aimed at better understanding the kinds of resources held in modern schools and school libraries, and how they are described and organised. This paper presents initial analyses of that survey data aimed at examining the terminology respondents feel best describes some contemporary resource types for their end-users.

In the modern school library, just as in the modern classroom, teachers and learners have access to a wide variety of resources, from print and audio-visual to the ever expanding array of digital formats, including websites, apps, digital video, interactive learning and reference resources, e-books, e-audiobooks and e-textbooks (Oddone, 2011; O'Connell, Bales, & Mitchell, 2015; Domingo & Gargante, 2016). In 2016, SCIS subscribers accessed records for a wide variety of resources besides hard-copy books, including digital video, e-books, websites, DVDs, kits, activity cards and flash cards, digital databases, mobile apps, audiobooks (online and CD), hardcopy games, music notation, posters and charts, music CDs, maps, and toys (Chadwick, 2017). Records for digital resources constituted 12.3% percent of downloads. The Australian Library Industry Associations (ALIA) projects that by 2020 Australian

libraries will hold a 80:20 ratio of hardcopy to e-books (ALIA, 2015), and a 2016 estimate suggests that rates are on a steady increase, with approximately 33% of schools having purchased an e-book in the prior year (Softlink, 2016).

Whilst the question posed at the head of this section is instinctively straightforward, describing the typeness of these kinds of resources presents technical challenges. Carlyle (1999) stated that “ideally, information retrieval systems will reflect users’ perceptions and expectations, so that the information presented to them is understandable, and responds effectively to their needs” (p. 185). In her analysis of user’s conceptualisation of library resource groupings, Carlyle found that while *physical format* was most prominent, respondents also utilised *audience, content, pictorial elements, usage/purpose, and language* in their classification judgements. In Hider’s 2009 study of user’s classifications of resource type, the multifaceted nature of user’s understanding of typeness was also apparent: typeness included the *format* and *content* of the resource, but extended beyond these to incorporate properties such as *mode of issuance, purpose, subject, audience, and extent*.

In bibliographic metadata, controlled vocabularies tend to break typeness down along some of these dimensions. For example, in the online environment the Dublin Core metadata schema (<http://dublincore.org>) offers elements such as *format* and *type*, with recommended controlled vocabularies including the MIME Internet Media Types (<http://www.iana.org/assignments/media-types>) and DCMI Type Vocabulary (<http://dublincore.org/documents/dcmi-type-vocabulary/>).

Within the MARC-21 records of the library community, typeness is represented in multiple elements, using both uncontrolled values and a range of controlled vocabularies (Ou & Saxon, 2014). In MARC control fields (<http://loc.gov/marc/bibliographic>), such as the Leader, 008 and 007, *type* is represented as controlled values for properties including *content* (such as in Leader positions 06, and 008 positions 24 to 27 for books), *issuance* (Leader positions 07), *form* and *format* (such as 007 position 00 to 01, and 008 position 23) and, for some resource types, *target audience* (008 position 22).

When the Resource Description and Access (RDA) cataloguing standard succeeded the Anglo-American Cataloguing Rules, Second Edition (AACR2), the repeatable MARC variable fields 336, 337 and 338 were introduced to represent the *type* properties of *content, media, and carrier*, respectively. These fields are populated by values from their respective RDA controlled vocabularies (<http://rdatoolkit.org>). Hider (2009) notes that *media type* and *carrier type* sit within a hierarchy, with the various carrier formats organised within the intermediating device defined by media type. For example, a *video disc* (carrier) requires a *video* device (media) whereas an *audio disc* (carrier) requires an *audio* device (media). Green and Fallgren (2007) recognised that whilst *content type* appears to be orthogonal to *media* and *carrier type*, they are in fact enmeshed because some content types are, and can only be, expressed via certain media formats. For example, a *three-dimensional moving image* is not expressed via *audio* media, and *spoken word* is not expressed via *microform*.

Under AACR2, the General Material Designation (GMD) was a single value placed in the MARC 245 Title Statement “to indicate, in general terms and at an early point in the description, the class of materials to which the item belongs” (Guerrini, 2004). The GMD value was drawn from a brief, flat controlled vocabulary to help the user distinguish items in the same catalogue according to their differing modes of expression (Guerrini, 2004). These values did not systematically represent typeness along dimensions such as *content* and *format*, though they strongly reflected the physical carrier of the item and incorporated properties such as *intellectual/artistic content* and *form of expression* (Guerrini, 2004).

Use of the GMD, MARC control fields and RDA vocabularies in bibliographic records is not consistent over time and will rarely be consistent within collections, and values from one vocabulary can not be easily mapped to another (Panchyshyn, 2014). AACR2 records contain both MARC control fields and the GMD, RDA records contain the MARC control fields and RDA type fields, and hybrid records may contain each of these (Ou & Saxon, 2014). Considerations around the deprecation of MARC raises the possibility of records containing only the RDA fields, possibly with combinations of as-yet unspecified vocabularies. Even within these ‘generations’ of records, different type encodings will be applied with differing degrees of consistency.

Despite these various ambiguities and representations, typeness as a construct plays a prominent role in the user tasks of finding, identifying, selecting, and locating resources. Many collections are organised by type (Carlyle, 1999), including aspects of *format* (such as the print, audio-visual, and online collections), *content* (music CDs versus audiobook CDs; reference material versus general fiction and non-fiction), *audience* (children's and young adult fiction; teacher resources), and *issuance* (periodicals, collections of series, and monographs). For the user, *type* is an early and immediate indication of where an item may be physically located or whether it can be accessed from the computer they are on.

Typeness is ubiquitous in online catalogue interfaces. Figure 1 displays how type is represented in major Australian and international systems to limit both basic and advanced searches, as a search index *per se*, and as a facet to limit results. It is such a prominent dimension that it is often the primary feature organising search (eg see the tabs in WorldCat's basic search in Figure 1A) and result sets (see the 'Bento Box' style of Trove's result sets, organised by type <http://trove.nla.gov.au/>).

In Niu, Zhang, and Chen's (2014) study of usage of the VuFind and Primo systems in an academic library, a resource type was specified in 11.8% of searches on Primo. *Format* was the most used facet in VuFind and the second most used in Primo, however the most used facet, "Show Only", included representations of typeness including *Online resources*.

Typeness is also prominent in the search behavior of library staff. On the SCIS catalogue, *type* was the most prominent dimension on which basic searches were limited (13% of searches), followed by *year of publication* at only 2% of searches and *place of publication* (0.3%). In advanced search, dimensions of type were also the most prominent search limits with 19% of searches limited by *format* and 5% by *content* type (Chadwick, 2017).

Typeness is central to some of the core selection decisions faced by end-users. For example, it indicates the equipment requirements of the resource which, depending on equipment availability, may influence a user's decision to utilise the resource. It also informs user decisions around resource utilisation on the basis of modality preferences or capabilities -- some users may prefer using audio to written text whilst others may be precluded from using written text.

Typeness also plays a role in the identification process, enabling users to distinguish two records representing the same work by the differing formats in which they are manifested. As mentioned above, this was the intended purpose of the General Material Designation (GMD) under AACR2.

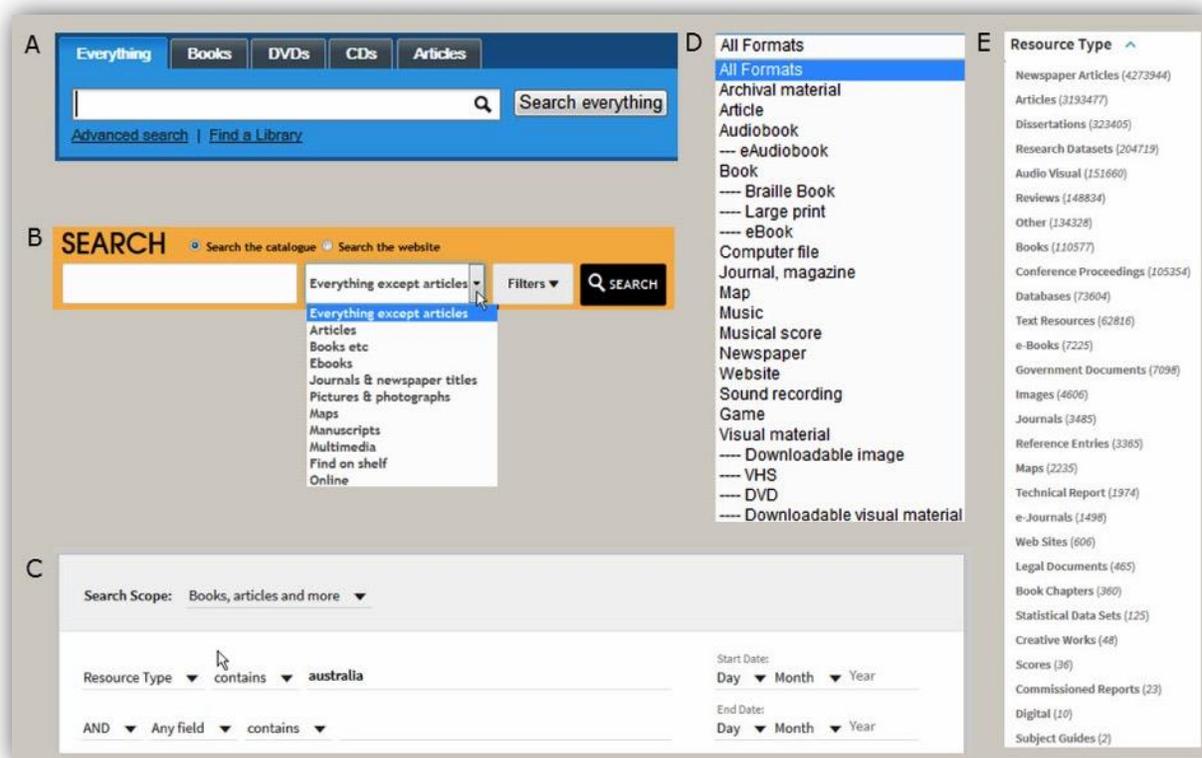


Figure 1 Resource Type represented in WorldCat's (A) basic search and (D) advance search filter, (B) the State Library of Victoria's basic search filter, (C) RMIT's advanced search, (E) and Trove's faceting

The GMD's decommissioning under RDA was due to the widely held opinion that its controlled values were imprecise and unhelpful to users – an issue that became pronounced with the proliferation of electronic formats (Ou & Saxon, 2014). The GMD values irreconcilably conflated *format* and *content* for some resource types (Hider, 2009), which was especially problematic for digital resources such as an MP3 musical recording, which could be represented as “Electronic Resource” or “Sound recording.”

Whilst the multidimensional approach of the RDA fields is intended to address these shortcomings of the GMD, the multiple repeatable facets of RDA present their own problems (Ou & Saxon, 2014). Hider (2009) noted that “two facets [of RDA content and carrier] are not very intuitive for many end users” (p. 113), possibly reflecting the fact that such dimensions are dictated by cataloguing standards and OPAC displays rather than user's inherent conceptualisations. Hider (2009b) concludes that description based on just *content* or *carrier* “would fall a long way short of optimal, and even both lists, in combination, would fall considerably short” (p. 558).

Whether and how to display these fields is not clear to libraries or systems. As of Ou & Saxon's 2014 survey of 53 academic, law, public and special libraries, 62% did not display any of the RDA fields, 26% displayed all three, four displayed 336 and 338 but not 337, and one each displayed 336 and 338 only. Ten of the respondents added RDA fields to their AACR2 records, and at least three added GMD to their RDA records.

Panchyshyn (2014) recognised the importance of providing consistent display of type descriptions across AACR2, hybrid, and RDA records, and explored a “quick and inexpensive solution that would allow [OhioLINK] libraries to compensate for the loss of the GMD” (p. 495). The solution he considered was to display an icon representing Leader position 06 and the text of the RDA 338 (carrier), with only the icon displaying in the absence of RDA type data.

Some have expressed concerns about the adequacy of the RDA vocabularies as a means of serving the GMD purpose of describing “in general terms and at an early point in the description, the class of materials to which the item belongs”. Panchyshyn (2014) stated that during Kent State University’s involvement in RDA testing it became apparent that removal of GMD was problematic for staff and potentially patrons, and that the controlled values of the RDA type fields were not easily comprehended by users. Cronin (2011) stated that staff at the University Of Chicago also questioned the utility of the RDA type fields, with cataloguer concerns about whether the RDA labels were intuitive for users. McCutcheon’s (2012) reference librarians found the terms unintuitive – especially the *media types*. Arguably, it is unreasonable to expect users to understand that an *unmediated* resource with a *volume* carrier and *text* content is in fact a book.

But working with raw values from these vocabularies is not the only option. As Hider & Huthwaite (2006) state, the intention of RDA is to provide guidance on representation of bibliographic data, not its presentation on the OPAC. Green and Fallgren (2007) note that whilst “an intuitive expression is key for helping users achieve identification and filtering goals” this can be achieved by “mapping natural language expressions to (combinations of) less intuitive attribute values” (p.90).

SCIS commenced use of the RDA type fields in 2013 but continued to provide the GMD until early 2017 to support user display in certain library systems in popular use in Australian and New Zealand schools. As SCIS moves to a new online platform it is considering use of a separate vocabulary consisting of user-friendly type (UFT) descriptors. SCIS subscribers use its database to find, select, and identify records for resources (but not to locate items), and a UFT vocabulary could be used to facilitate each of these tasks. Vocabulary values could be mapped from existing values in MARC records, thereby achieving Panchyshyn’s (2014) objective of providing consistent type description over AACR2, RDA and hybrid records.

Given questions over the intuitiveness of type descriptors in GMD and RDA, the purpose of this paper is to explore possible labels for such a UFT vocabulary. For a small set of digital/electronic resources, school library staff were asked to rate at least one UFT label in contrast with the GMD and RDA labels for the same resource type.

Supplementing an ambiguous or uni-dimensional type description with parenthetical qualifiers may improve clarity and increase user friendliness (Guerrini, 2004; Hider, 2009b). The ANSI/NISO (2005) Z39.19 standard recommends use of parenthetical qualifiers to disambiguate homographs, though recommends against their use if an appropriate compound term is available (eg Digital music versus Music (Digital)). In the current study, the acceptability of parenthetical qualifiers in labels was also evaluated, and whether it is generally more acceptable to qualify the content or carrier/format of the resource.

Finally, following from research such as Hider (2009), Ou and Saxon (2014) and Panchyshyn (2014), the current study was interested in whether participants demonstrated any preference for representing type via RDA content (MARC 336), RDA carrier (MARC 338), or a combination of the two.

Research questions

The current paper examined four specific questions relating to the description of resource type for nine categories of electronic/digital resources:

1. Do school library staff prefer the UFT labels over those offered by GMD or RDA?
2. Do they demonstrate preferences around use of qualifiers in those items containing UFT options with both qualified and unqualified versions?
3. In those items containing UFT options with qualified versions, do respondents demonstrate a preference for content-based labels qualified by format, or format-based labels qualified by content?
4. Finally, do respondents demonstrate preferences for RDA content, RDA carrier, or a combination of both?

For each of these questions, secondary interest was also given to whether subgroups of respondents differed in their preferences, as defined by their role in the library and the size, sector and level of their school.

METHOD

The SCIS School Library Resourcing survey was conducted on the surveymonkey.com platform between 26 April and 31 May 2016. The survey was promoted through social media, on the SCIS website, and via an email campaign to SCIS subscribers. An AU\$250 book voucher was offered as a prize to one respondent. Raw data contained identifying information in order to assign the prize. That data was also used to remove multiple responses from the same school before being deleted from the dataset.

The full survey contained 38 items. The current study is primarily concerned with Questions seven to fifteen, though the first six questions are reported for the purpose of describing the respondents (see Appendix A).

Initial questions enquired about the respondent's role in the school (Q1), school enrolment (Q2), school level (Q3), school sector (Q4), school location (Q5), and library staffing (Q6).

Questions seven to fifteen provided a description of a resource type, but avoided use of common labels for that type of item. They also provided an image to indicate the item type. Respondents were asked to select one option indicating which they believe best describes the item for their students. For each item, options were derived from the GMD vocabulary, RDA content type, RDA carrier type, and both RDA content and carrier type combined, and one or more UFT values. Where applicable, more than one UFT option was provided to evaluate preferences for different labels and regarding use of parenthetical qualifiers versus no qualifier. For items with a qualified UFT, options were offered in which the qualifier described content type and in which qualifiers described format. These questions were mandatory and the ordering of options was set to vary randomly.

The different items and the various options provided for each are displayed in Tables Table 8 to Table 16.

Respondents

An initial response was received from 1434 respondents. Data was removed if respondents did not complete the full survey. If more than one response came from the same school library (as indicated by IP address and details provided by respondents) only one response was retained, firstly from teacher librarians, then librarians, followed by library technicians, then by any other person working in the library. Responses were removed if the option "Other" was selected for school sector, level or location (Questions 3 to 5). The final dataset consisted of 1212 respondents.

Analysis

All analyses were performed in SPSS Version 24 (IBM, 2016).

For each analysis, a within-subject analysis of variance (ANOVA) tests was conducted to test for a main effect. Marginal means for each analysis are displayed in Table 3. Where more than one category was being compared, these were followed up by post-hoc pairwise Bonferroni adjusted comparisons to identify where differences lay. Next, for the most endorsed category, a series of between-group ANOVAs were performed to examine differential responses between the respondent categories of school level, school sector, respondent role, and school size. School size was dichotomised as large (over 800 enrolments) and small (under 801). For respondent role, the less prevalent (see below) categories of *Parent or volunteer*, *IT Staff*, *Principal/Assistant Principal*, and *Teacher* were classified as 'Other'. Again, specific differences between more than two categories were examined with post-hoc pairwise Bonferroni adjusted comparisons.

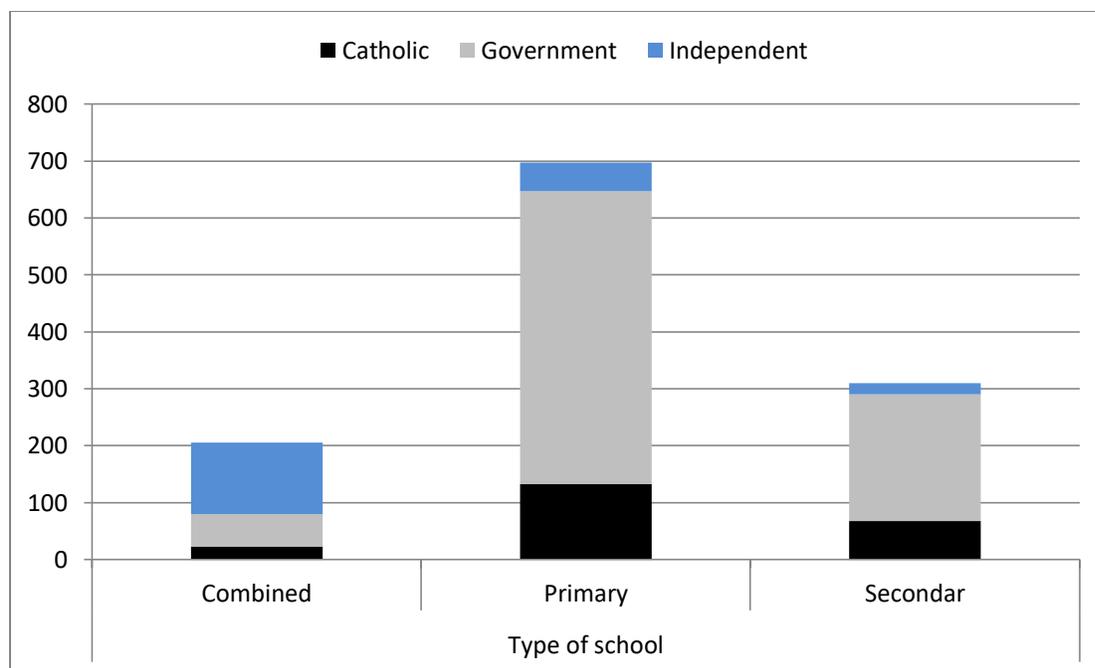


Figure 2. Respondent's school sector and level

Finally, a series of Chi-square analyses were conducted to identify differential preferences on a per-question basis.

Table 1 Reported staff size of respondent's library

Library Staff	Frequency	Percent	Cumulative Percent
1	345	28.46%	28.46%
2	467	38.53%	66.99%
3	303	25%	91.99%
4	54	4.45%	96.45%
5.	28	2.31%	98.76%
6	15	1.23%	100%
Total	1212	100%	

RESULTS

Respondents

Responses were received from all Australian states and territories – predominantly New South Wales (23.8%), Victoria (22.5%), and Queensland (14.6%), followed by Western Australia (12.3%) and South Australia (7.7%). This distribution is roughly representative of population and school distribution across the country. Respondents from New Zealand accounted for 15.8% of the sample.

Table 2 Example of how responses to five items were scored in analyses one to four

Analysis	Category	Response					Value
		7 DVD	8 Electronic Resource	9 Musical Recording	10 MP3 (Music)	11 Audiobook (CD)	
1	UFT	Y			Y	Y	0.6
	RDA			Y			0.2
	GMD		Y				0.2
2	Qualified		-	-	Y	Y	0.66
	Unqualified	Y	-	-			0.33
3	Format	-	-	-		Y	0.5
	Content	-	-	-	Y		0.5
4	Content	-	-	Y	-	-	1
	Carrier	-	-		-	-	0
	Both	-	-		-	-	0

Responses were predominantly from primary schools (57.5%), followed by secondary (25.6%) and combined schools (16.9%). Government schools were the highest responders (65.4%), followed by Catholic (18.5%) and Independent schools (16.1%). As seen in Figure 2, the largest sub-group of respondents was Government primary schools (37.4% of total responses), followed by Government secondary (15.9%) and Independent combined (11.1%) schools.

Thirty-two percent of respondents were Teacher Librarians, followed by administrative/support staff (21.9%), library technicians (20.2%) and librarians (19.2%). Other roles accounted for only 7% or responses.

Fifteen percent of responses came from schools with fewer than 200 enrolments. The largest proportion of responses (35.6%) came from schools with 401 to 800 enrolments, and only 8.7% had more than 1200 enrolments.

Table 3 Marginal means for Analyses One to Four

Analysis				
1	2	3	4	Responses
UFT				.679
	Unqualified			.308
	Qualified			.692
		by content		.389

	by format	.611
GMD		.145
RDA		.176
	Carrier	.587
	Content	.040
	Both	.373

The reported number of full time equivalent roles in the library can be seen in Table 1. Only 8% of respondents had more than three staff, and almost one third reported having a single staff member.

Analysis 1: UFT, RDA and GMD

To assess preferences for vocabulary, responses were classified as either UFT, RDA, or GMD. An example of the scoring methodology can be found in

Table 2. A per-person score for each vocabulary was obtained by calculating their response to each as a proportion of all items they responded to (in the example, for UFT $3/5=0.6$). The interpretation of this score is the respondent's proportional endorsement of the category (in the example, the respondent demonstrated 60% endorsement of the UFT values).

A within-subjects ANOVA comparing user's proportional ratings of UFT, GMD and RDA terms found a significant main effect, $F(2,2422)=4160.614, p<.001$. Comparisons revealed that ratings for UFT (mean=0.679) were significantly higher than RDA (mean=0.176; $p<.001$), which were in turn higher than ratings for GMD (mean=0.145; $p<.001$).

Four separate one-way ANOVAs were performed to examine the separate impact of role, school size, school level, and school sector on UFT ratings. Marginal means for these analyses can be found in

Table 4. A main effect was found for role, $F(4,1207)=4.271, p=.002$, with comparisons revealing that TLs approved of UFT more than librarians, library technicians, and school administrators. No main effects were found for school size ($F(1,1210)=.5, p=ns$), level ($F(2,1209)=.564, p=ns$), or sector ($F(2,1209)=2.12, p=ns$).

Table 4 Responses to UFT in Analysis One, by Respondent Characteristics

		Responses
School level	Primary	0.680
	Secondary	0.672
	Combined	0.686
School sector	Government	0.673
	Catholic	0.688
	Independent	0.694
School size	Small (< 801 enrolments)	0.679
	Large (> 800 enrolments)	0.681

Respondent's role	Teacher librarian	0.704
	Librarian	0.675
	Library technician	0.662
	Admin/Support	0.664
	Other	0.675
Total		0.679

Analysis 2: Qualifiers in UFTs

To assess preferences for qualifiers, responses to UFT options were classified as either qualified or unqualified. An example of the scoring methodology can be found in

Table 2. A per-person score for each category was obtained by calculating their response to each as a proportion of all UFT items they responded to (in the example, for qualified, $2/3=0.66$).

A within-subjects ANOVA comparing qualified to unqualified UFT labels found a significant effect ($F(1,1203)=520.429, p<.001$), with qualified (mean=0.692) being endorsed more than unqualified (mean=0.308).

Between-subject one-way ANOVAs comparing ratings of qualified labels found significant main effects for school size ($F(1,1202)=10.21, p=.001$), level ($F(2,1201)=9.141, p<.001$) and sector ($F(2,1201)=4.22, p=.015$). Marginal means for these analyses can be found in Table 5. Comparisons found that small schools (mean=.706) endorsed qualified labels more than large schools (mean=.643), primary schools (mean=.72) showed greater endorsement than combined (mean=.626, $p<.001$), and government (mean=.705) more endorsement than independent (mean=.637, $p=.011$).

No main effect was found for role ($F(4,1199)=1.139, p=n.s.$).

Table 5 Responses to Qualified UFT in Analysis Two, by Respondent Characteristics

		Responses
School level	Primary	0.720
	Secondary	0.673
	Combined	0.626
School sector	Government	0.705
	Catholic	0.694
	Independent	0.637
School size	Small (< 801 enrolments)	0.706
	Large (> 800 enrolments)	0.643
Respondent's role	Teacher librarian	0.668
	Librarian	0.700

Library technician	0.691
Admin/Support	0.712
Other	0.717
Total	0.692

Analysis 3: Label vs Qualifier for Qualified UFTs

To assess preferences for content or format qualifiers, responses to UFT options with qualifiers were classified as either content or format. An example of the scoring methodology can be found in

Table 2. A per-person score for each category was obtained by calculating their response to each as a proportion of all qualified UFT items they responded to (in the example, for format, $1/2=0.5$).

A within-subjects ANOVA comparing content versus format as qualifier found a significant effect ($F(1,1146)=108.466, p<.001$), with format-as-qualifier (mean = .611) being more highly endorsed than content (mean = .389).

Between-subject ANOVAs comparing ratings of content qualifiers found significant main effects for level ($F(2,1144)=8.294, p<.001$) and size ($F(1,1145)=4.904, p=.027$). Marginal means for these analyses can be found in Table 6. Comparisons found that large schools (mean=.653) endorsed format as a qualifier more than small schools (mean=.598), and both secondary (mean=.653) and combined schools (mean=.671) showed greater endorsement than primary schools (mean=.574, $p<.014$).

No main effects were found for sector ($F(2,1144)=.573, p=n.s.$) or role ($F(4,1142)=.088, p=n.s.$).

Analysis 4: RDA

To assess preferences for RDA types, responses to RDA options were classified as either content, carrier, or both. An example of the scoring methodology can be found in

Table 2. A per-person score for each category was obtained by calculating their response to each as a proportion of all RDA items they responded to (in the example, for content, $1/1=1$).

Table 6 Responses to Format-Qualified UFT in Analysis Three, by Respondent Characteristics

		Responses
School level	Primary	.574
	Secondary	.653
	Combined	.671
School sector	Government	.609
	Catholic	.597
	Independent	.635
School size	Small (< 801 enrolments)	.598
	Large (> 800 enrolments)	.653
Respondent's role	Teacher librarian	.614
	Librarian	.598

Library technician	.611
Admin/Support	.615
Other	.615
Total	.611

A one-way within-persons ANOVA was significant ($F(2,1990)=412.721, p<.001$), with comparisons revealing that Content (mean=0.04) was endorsed less frequently than either Carrier (mean=0.587, $p <.001$) or Both (mean = .373, $p<.001$). Carrier was also endorsed more frequently than Both ($p<.001$).

Four separate one-way ANOVAs were performed to examine the separate impact of role, school size, school level, and school sector on RDA Carrier ratings. Marginal means for these analyses can be found in Table 7. A main effect was found for sector ($F(2,993) = 3.312, p=0.037$), with comparisons revealing that independent schools (mean=.669) were more approving of RDA Carrier than government schools (mean=.575, $p=.044$). A main effect was also found for school level ($F(2,993) = 4.344, p =.013$), with comparisons revealing that combined schools (mean=.669) were more supportive of RDA carrier type than primary schools (mean=.561, $p=.012$). No main effects were found for role, $F(4,991)=0.07, p=n.s.$, or school size ($F(1,994)=.003, p=n.s.$).

Preferences Per Item

Tables Table 8 to Table 16 display raw responses on a per-item basis. Chi-square testing revealed significant differences in response rate for all nine items.

Table 7 Responses to RDA Carrier in Analysis Four, by Respondent Characteristics

		Responses
School level	Primary	.561
	Secondary	.601
	Combined	.669
School sector	Government	.575
	Catholic	.565
	Independent	.669
School size	Small (< 801 enrolments)	.587
	Large (> 800 enrolments)	.586
Respondent's role	Teacher librarian	.585
	Librarian	.600
	Library technician	.589
	Admin/Support	.563
	Other	.626
Total		.587

In question seven the overwhelming majority of respondents favoured the UFT option “DVD” (Chi-sq (4) =4268.49, p<.001).

Table 8 Raw responses to Question 7

Category	Item	Response
UFT	DVD	1152
GMD	Videorecording	32
RDA	Carrier Videodisc	14
	Content Moving image	2
	Both Videodisc, moving image	12

In Question Eight the majority of respondents endorsed RDA, and carrier type in particular (Chi-sq (5) =794.32, p<.001).

Table 9 Raw responses to Question 8

Category	Item	Response
UFT	Digital video	283
GMD	Videorecording	50
	Electronic resource	140
RDA	Carrier Online resource	494
	Content Moving image	2
	Both Online resource, moving image	243

UFT values were the most highly endorsed in Question Nine, with format qualified by content (CD(Music)) receiving the most ratings (Chi-sq (6) =1130.2, p<.001).

Table 10 Raw responses to Question 9

Category	Item	Response
UFT	Unqualified CD	378
	Qualified by format Music (CD)	196
	Qualified by content CD (Music)	463
GMD	Sound recording	63
RDA	Carrier Audio disc	49
	Content Musical recording	4
	Both Audio disc, musical recording	59

In Question Ten, UFT was more highly rated than RDA or GMD (Chi-sq (10) =383.34, p<.001). Whilst UFT qualified by content (MP3(Music)) was the single item receiving the most raw ratings, UFT qualified by format received more ratings in total when consolidated over two items, with Music (Digital) being the most highly rated of those.

Table 11 Raw responses to Question 10

Category		Item	Response
UFT	Unqualified	Digital audio	86
		Digital music	175
		MP3	134
	Qualified by format	Music (MP3)	154
		Music (Digital)	180
	Qualified by content	MP3 (Music)	201
GMD		Sound recording	52
		Electronic resource	67
RDA	Carrier	Online resource	29
	Content	Musical recording	11
	Both	Online resource, musical recording	123

UFT qualified by format (Audiobook(CD)) was the single item receiving most ratings in Question 11 (Chi-sq (6) =2441.35, $p < .001$).

Table 12 Raw responses to Question 11

Category		Item	Response
UFT	Unqualified	CD	43
	Qualified by format	Audiobook (CD)	726
	Qualified by content	CD (Audiobook)	313
GMD		Sound recording	37
RDA	Carrier	Audio disc	54
	Content	Spoken word	2
	Both	Audio disc, spoken word	37

In Question 12, the unqualified UFT item (e-book) received the highest number of raw ratings (Chi-sq (6) =1387.42, $p < .001$). However, in composite the qualified options were endorsed more highly, with the UFT value qualified by format (e-book (online)) being the most highly rated of them.

Table 13 Raw responses to Question 12

Category		Item	Response
UFT	Unqualified	e-book	466
	Qualified by format	e-book (online)	443
	Qualified by content	Online resource (e-book)	176
GMD		Electronic resource	27
RDA	Carrier	Online resource	55
	Content	Text	1
	Both	Online resource, text	44

Question three contained three unqualified UFT options, with App being the most highly rated of all options (Chi-sq (5) =2380.98, p<.001).

Table 14 Raw responses to Question 13

Category		Item	Response
UFT		App	831
		Mobile application	98
GMD		Electronic resource	104
RDA	Carrier	Online resource	99
	Content	Computer program	10
	Both	Online resource, computer program	70

The single UFT option, Website, was the most endorsed item in Question 14 (Chi-sq (4) =1769.52, p<.001).

Table 15 Raw responses to Question 14

Category		Item	Response
UFT		Website	828
GMD		Electronic Resource	101
RDA	Carrier	Online resource	164
	Content	Text	3
	Both	Online resource, text	116

The single UFT option, CD-ROM, was the most endorsed item in Question 15 (Chi-sq (4) =2296.35, p<.001).

Table 16 Raw responses to Question 15

Category		Item	Response
UFT		CD-ROM	909
GMD		Electronic resource	83
RDA	Carrier	Computer disc	87
	Content	Computer program	46
	Both	Computer disc, computer program	87

DISCUSSION

The current paper examined items from the 2016 SCIS School Library Resourcing survey to determine the kinds of resource type labels school library staff felt best represented a set of electronic and digital resources for their end users. In 2017 SCIS ceased cataloguing the GMD after four years of creating hybrid AARC2/RDA records, and, coinciding with a new online platform in 2017, faces decisions about how best to represent resource types for the purpose of enabling its subscribers to find, identify, and select records in its online database.

Whilst the categories offered by GMD were unwieldy for describing contemporary resource types, it did provide a single, straightforward way “to indicate, in general terms and at an early point in the description, the class of materials to which the item belongs” (Guerrini, 2004).

The RDA content, media, and carrier type fields provide a more flexible faceted description of type, but the interpretation of the RDA labels and use of the facets may not be intuitive to users (McCutcheon, 2012; Hider, 2009). Libraries and systems also struggle to know if and how to represent resource type based on the RDA dimensions (Ou and Saxon, 2014; Panchyshyn, 2014).

One option, suggested by Green and Fallgren (2007) and considered by SCIS, is to map a separate, user-friendly type (UFT) vocabulary to existing MARC data, irrespective of whether that data comes from the GMD, MARC control fields, or RDA type fields.

The current study was conducted as a first step in this process – to evaluate school library staffs’ response to possible UFT terms as opposed to GMD or RDA values for a set of commonly held digital/electronic resources. To improve the clarity and user-friendliness of labels, use of parenthetic

qualifiers of content type or format was also considered, as suggested by the ANSI/NISO (2005) Z39.19 standard.

Overall, the UFT labels were strongly favoured by school library staff, being endorsed on an average of almost 70% of items. This was true across all respondent subgroups, however Teacher Librarians appeared even more enthusiastic about UFT descriptions. Per-item analyses confirmed the general finding: with the exception of one item, UFT labels were the most highly rated for all items.

This finding is consistent with views that both GMD and RDA terms can be inadequate or unintuitive as a description for these types of resources (eg Hider, 2009).

When it came to qualifiers, the qualified form of UFT labels was endorsed more than twice as often as an unqualified version, and this was found consistently across all four items with qualified versions. Whilst the qualified form of UFTs was endorsed by all subgroups, small schools, primary schools, and government schools demonstrated a particular preference. Government primary schools, the most prominent subgroup in the survey, may appreciate the greater clarity afforded by qualifiers for their students who are able to read but still consolidating their cognitive schema for understanding resources and how they are classified and organised.

Analysis three was concerned with the nature of parenthetical qualifiers: did respondents prefer content-type descriptions to be qualified by format descriptions, or *visa versa*. Format-based qualifiers were endorsed in, on average, 61% of corresponding items. In only one item did respondents prefer a content-based qualifier, "CD (Music)" as opposed to "Music (CD)". The reason for this preference is not clear when the format-based qualifier was preferred in analogous items such as "Audiobook (CD)". It may be related to ambiguity over the term "Music" and its association with printed/notated music. Whilst all subgroups preferred format-based qualifiers on the whole, they were particularly endorsed by large, secondary and combined schools.

Next to UFT terms, the greatest endorsement was for RDA values. Within that category, users preferred the carrier type value (MARC 338) on its own (endorsed in nearly 60% of RDA items on average), followed by a combination of both content and carrier type (37% of RDA items on average). In fact, for one item, a digital video, RDA was endorsed more than UFT values and the RDA Carrier type ("Online Resource") was the single most endorsed item. Perhaps in the case of online videos, it is not clear to end-users that the video component can be clearly considered in isolation from the rest of the webpage, which can be rich in text and images. Alternatively, this finding may have been an artefact of the particular description used for this item, or the image used to convey it. This concern could be equally true of any item in the current study, where only one item was chosen to represent each "type". In this sense, the current findings could benefit from replication with a larger item set.

Nevertheless, the size of the responses observed, their general consistency over items, and their consistency over subgroups of schools and library roles (which differed a little in emphasis but not core findings), argues for the strength of the conclusions. The findings strongly support the role for a UFT vocabulary in describing resources in the SCIS database. The current findings suggest that school library staff believe that user-friendly terms can, on the whole, be usefully supplemented by format-based qualifiers to describe resource types for K-12 students and their teachers.

Subsequent work will be needed to establish the scope of such a vocabulary: what types of resources are used consistently across schools, or used occasionally in enough schools to warrant inclusion in a vocabulary. Existing SCIS knowledge about the kinds of records downloaded from the service may contribute to this (Chadwick, 2017).

A further question is the degree to which such a vocabulary is constrained by the available values in MARC records, as provided by the GMD, control fields, RDA fields, and other uncontrolled MARC fields. Can the vocabulary reasonably contain values that cannot be mapped from existing MARC data.

Having established resource type concepts with appropriately user-friendly labels, the next challenge will be to determine and optimize an algorithm for consistently and accurately mapping data from AACR2, hybrid, and RDA records to vocabulary values.

Once a system can be trusted to convert MARC records, despite their vintage, to a consistent, user-friendly, and future-oriented vocabulary of resource type descriptions, such a vocabulary could be

put to use in improving search, selection, and identification of resources for SCIS subscribers seeking to provide the best resources for the teachers and learners in their schools.

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APPENDIX A – 2016 SCIS School Library Resourcing survey Questions 1 to 15

Your School and Library

Thank you for taking the time to fill in this survey for the Schools Catalogue Information Service (SCIS). This survey is intended for Australian and New Zealand schools that have a library (resource centre). All results will remain anonymous. This survey will take approximately 10 minutes to complete.

* 1. What is your current role?

- Teacher Librarian
- Librarian
- Library technician
- IT staff
- Audio-visual staff
- School Admin/Support or library officer
- Teacher
- Principal/Assistant Principal
- Parent or volunteer
- Other (please specify)

* 2. What is the total enrolment at your school?

- less than 200 students
- 201 - 400 students
- 401 - 800 students
- 801 - 1200 students
- 1201 - 1600 students
- 1601 - 2000 students
- more than 2000 students

* 3. Type of school

- Primary
- Secondary
- Combined Primary/Secondary
- Other (please specify)

* 4. School sector

- Government
- Catholic
- Independent
- Other (please specify)

* 5. School location

- ACT
- NSW
- NT
- QLD
- SA
- TAS
- VIC
- WA
- New Zealand
- Other (please specify)

* 6. Who works in the library, including yourself? Please indicate full-time equivalent (FTE) positions for each role, using only *full* or *decimal numbers*. So, if you had two volunteers working two days per week (0.4 FTE each), and one working three days per week (0.6 FTE), you would enter 1.4 next to 'Parents/volunteers'

Teacher librarian	<input type="text"/>
Librarian	<input type="text"/>
Library technician	<input type="text"/>
IT staff	<input type="text"/>
Audio-visual staff	<input type="text"/>
School assistant/library officer	<input type="text"/>
Teacher	<input type="text"/>
Parent/volunteer	<input type="text"/>

Describing Resources

Part of cataloguing includes describing the 'type' of resource. Resources can be described in a number of ways, and we want to understand which way is most helpful to your students.

* 7. This resource is a movie that is usually viewed by inserting it into a player and watching it on a television. How would you best describe this resource for your students?



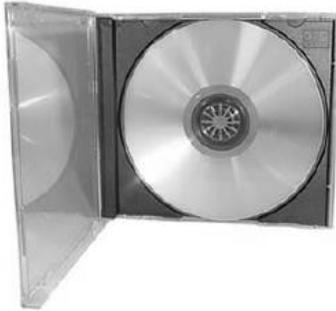
- Videorecording
- DVD
- Videodisc
- Moving image
- Video disc, moving image

* 8. This resource is a movie watched using an internet browser on a computer with an internet connection. How would you best describe this resource for your students?



- Videorecording
- Electronic resource
- Digital video
- Online resource
- Moving image
- Online resource, moving image

* 9. The music on this resource is usually listened to by inserting it into a stereo system. How would you best describe this resource for your students?



- Sound recording
- CD (Music)
- CD
- Music (CD)
- Musical recording
- Audio disc
- Audio disc, musical recording

* 10. The music on this downloadable resource is listened to using computer software or a portable device like an iPod. How would you best describe this resource for your students?



- Electronic resource
- Sound recording
- Digital music
- MP3
- MP3 (music)
- Digital audio
- Musical recording
- Online resource
- Online resource; Musical recording
- Music (MP3)
- Music (Digital)

* 11. On this resource an actor reads aloud from a book. It is usually listened to on a stereo system. How would you best describe this resource for your students?



- Sound recording
- Audiobook (CD)
- CD
- Spoken word
- Audio disc
- Audio disc, Spoken word
- CD (Audiobook)

* 12. This book can be read by viewing it online on a vendor's platform. How would you best describe this resource for your students?



- Electronic resource
- e-Book (online)
- e-Book
- Online resource
- Text
- Online resource, text
- Online resource (e-Book)

* 13. This interactive resource can be used by downloading it from a website and installing it on a portable device like an iPad. How would you best describe this resource for your students?



- Electronic resource
- App
- Mobile application
- Computer program
- Online resource
- Online resource, Computer program

* 14. This resource can be read by visiting a URL on an internet browser. How would you best describe this resource for your students?



- Website
- Electronic resource
- Online resource
- Text
- Online resource, Text

* 15. This interactive resource is used by placing it in a computer drive. How would you best describe this resource for your students?



- Electronic resource
- CD-ROM
- Computer disc
- Computer program
- Computer disc, computer program

Rewiring Empathy: The Value of Multicultural Literature in the Classroom

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ABSTRACT

Reading multicultural novels cultivates empathy for diverse people, cultures, and environments in ways that Internet use cannot. The act of reading fictional books has been shown to increase the capacity for empathy in the reader. Internet use, by contrast, has been shown to reduce students' ability to remember, concentrate, and engage in the deep reading and contemplation activity that develops empathy. Empathy is vital to our global future. Hate crimes are increasing in the United States, United Kingdom, and elsewhere; worldwide, the number of political and climate-change refugees is increasing and the biodiversity of other species is declining. Addressing these problems requires an increase in human empathy and cooperation. Therefore multicultural books are vital to preparing students for our changing world. It is up to schools to discover, acquire, and prioritize multicultural books in the classroom.

Keywords: Multiculturalism, Multicultural Fiction, Internet, Hate Crimes, Diversity, Children's Literature, Empathy

INTRODUCTION

On September 30, 2016, the historic Ashburn Colored School in Virginia, where African American children were educated from 1892 until the 1950s, was vandalized. Five teenaged boys painted swastikas, obscenities, and the words "white power" on the old wooden walls of the one-room building. Judge Avelina Jacob, of the Juvenile and Domestic Relations District Court, sentenced the boys who committed the crime. Her sentence: they must each read one book per month from a list of multicultural literature that included *The Kite Runner*, *Schindler's List*, and *Things Fall Apart* (Scott, 2017).

What is the value of multicultural literature in 21st-century schools? What effect does reading literature by and about people from other cultures have on the decisions future adults will make? And how important is it for young people to read books at all in the age of the Internet?

LITERATURE VERSUS THE INTERNET

Literature

Within the past decade, a remarkable body of research has emerged providing evidence that the reading of fiction develops a capacity for empathy in the reader, and that this capacity carries over into real-life situations.

In "Novel finding: Reading literary fiction improves empathy," Julianne Chiaet summarizes the conclusions of five studies done by researchers at the New School in New York City (Chiaet, 2013). The studies provide "evidence that literary fiction improves a reader's capacity to understand what others are thinking and feeling." Because literature focuses on the psychology of characters and their relationships, rather than formulaic plots, literary fiction tends to be more realistic than genre fiction. The act of reading about complex characters and trying to understand their motivations can undo prejudices and stereotypes. The characters in literary fiction "support and teach us values about social behavior, such as the importance of understanding those who are different from ourselves," Chiaet states.

In "Can reading a fictional story make you more empathetic?" Christopher Bergland describes the results of a Carnegie Mellon brain mapping experiment (Bergland, 2014). Neuroscientists discovered that reading about the activity of a fictional character activates the same brain areas as actually performing or witnessing the activity in real life. As Bergland states, "In reading a fictional story your brain is literally

living vicariously through the characters at a neurobiological level. . . . [It] appears to improve the reader's ability to put themselves in another person's shoes and flex the imagination in a way that is very similar to the visualization that an athlete would use to activate the motor cortex and muscle memory used in sports during a mental rehearsal." In this study, it is not simply literary fiction that leads to the ability to put oneself in another person's shoes, but fiction in general.

In "How fiction might improve empathy," Honor Whiteman discusses an article in the journal *Trends in Cognitive Sciences* by Keith Oatley, of the Department of Applied Psychology and Human Development at the University of Toronto (Whiteman, 2016). According to Whiteman, Oatley presents findings from previous studies, as well as his own recent study, on how "literary fiction influences readers' empathetic response in the real world." He points out that fiction is a "simulation of social worlds," and that, "similar to people who improve their flying skills in a flight simulator, those who read fiction might improve their social skills. Fiction might be the mind's flight simulator." Whiteman writes that Oatley "describes previous research that showed readers of a book called *Saffron Dreams*—a fictional story of a Muslim woman in New York—had greater empathy for people of a different race/ethnicity, compared with those who did not read a fictional book."

Many more studies exist which show that reading that involves imagining a fictional character's experience trains the reader to use brain functions that produce empathetic responses toward others. For readers of multicultural literature, this includes empathy towards persons of other cultures and races.

THE INTERNET

Much of what informs our current views on education and psychology is contemporary brain research. Although William James observed over one hundred years ago that "the nervous tissue seems endowed with a very extraordinary degree of plasticity" (James, 1892), the fact of the brain's plasticity was not proven or accepted until very recently. In the past, almost everyone from Kant to Chomsky believed that the brain was hard-wired and remained so from a very early age. Within the last few decades, however, advanced brain research has proven that the brain is very plastic. "Today, scientists sum up the essential dynamic of neuroplasticity with a saying known as Hebb's rule: 'Cells that fire together wire together'" (Carr, 2011, p. 27). In other words, performing repeated actions and behaviors, at any point in life, burns neural pathways in the brain that become wired—become habit. And further, burning new neural pathways can reduce the efficacy of previous neural pathways. Developing new brain habits can replace old brain habits. This rewiring of the brain occurs when we use the Internet.

According to a study conducted at Washington University's Dynamic Cognition Laboratory and published in *Psychological Science* in 2009, when reading a story, "readers mentally simulate each new situation encountered in a narrative. Details about action and sensation are captured from the text and integrated with personal knowledge from past experiences" (Carr, 2011, p. 74). The Internet, however, presents text in a way that interrupts this process. Concentration and the ability to have a deep reading experience are disrupted by the Internet's multimedia, multistimulus, or "hypermedia" presentation. Hypermedia is full of links, images, animation, and an entire "ecosystem of interruption technologies" (Carr, 2011, p. 91). These stimuli can adversely affect memory.

Human memory has two functional components: short-term, or "working memory," and long-term memory. Modern neuroscientific research has shown that, while long-term memory has unlimited storage capacity (the brain literally grows new synapses to create more long-term memory), our working memory is very limited. We can process only two or three things at a time in our working memory, and these things will quickly vanish if we do not process them in the way that will store them in long-term memory—a complex process that takes time. The information in our working memory at any given moment is called "cognitive load." As Carr explains, "When the load exceeds our mind's ability to store and process the information . . . we're unable to retain [it] or to draw connections with the information already stored in our long-term memory. We can't translate the new information into schemas. Our ability to learn suffers, and our understanding remains shallow" (Carr, 2011, p. 125).

Several recent studies have shown that when students read an article with hypertext and multiple distracting images, even when those images are related to the article's content, the students comprehend

and retain less than do those who read the article in a pure text format. Carr describes one such study, performed by Erping Zhu: “She had groups of people read the same piece of online writing, but she varied the number of links included in the passage. She then tested the readers’ comprehension by asking them to write a summary of what they had read and complete a multiple-choice test. She found that comprehension declined as the number of links increased” (Carr, 2011, p. 128).

Dr. Zhu concluded that “reading and comprehension require establishing relationships between concepts, drawing inferences, activating prior knowledge, and synthesizing main ideas. Disorientation or cognitive overload may thus interfere with cognitive activities of reading and comprehension” (Carr, 2011, p. 129). As Carr states, “The Net is, by design, an interruption system, a machine geared for dividing attention. That’s not only a result of its ability to display many different kinds of media simultaneously. It’s also a result of the ease with which it can be programmed to send and receive messages. . . . Studies of office workers who use computers reveal that they constantly stop what they’re doing to read and respond to incoming emails. It’s not unusual for them to glance at their in-box thirty or forty times an hour” (Carr, 2011, p. 132).

Having our attention drawn to multimedia images, incoming messages, hyperlinks, or so-called click bait demands that we refocus our mental energy from a contemplative state (if we are reading, writing, or thinking deeply) to a more hyper state that demands a quick decision on whether to click the link, icon, message, or whatever has grabbed our attention. Literally our brain must stop the calm, contemplative process of communication between working and long-term memory, and jump to the executive function in the prefrontal cortex to make a decision every time we hear a beep or ringtone or see a flashing image or colorful link. “The redirection of our mental resources, from reading words to making judgments may be imperceptible to us . . . but it’s been shown to impede comprehension and retention, particularly when it’s repeated frequently . . . our brains become not only exercised but overtaxed” (Carr, 2011, p. 122).

In addition, some studies indicate that Internet use can be addictive. As Adam Alter, author of *Irresistible: The rise of addictive technology and the business of keeping us hooked*, says about the Internet, “The technology is designed to hook us Email is bottomless. Social media platforms are endless. Twitter? The feed never really ends. And so you come back for more and more” (Dreifus, 2017). He also states, “I find it interesting that the late Steve Jobs said in a 2010 interview that his own children didn’t use iPads. In fact there are a surprising number of Silicon Valley titans who refuse to let their kids near certain devices.”

As Carr states, “The Net’s cacophony of stimuli short-circuits both conscious and unconscious thought, preventing our minds from thinking either deeply or creatively. Our brains turn into simple signal-processing units, quickly shepherding information into consciousness and then back out again” (Carr, 2011, p. 119). In other words, those brain processes involved in creativity, imagination, deep reading, and the development of empathy are replaced with “signal-processing.”

HATE CRIMES

The vandalizing of the historic African American schoolhouse in Ashburn is one of an increasing number of hate crimes in the United States. The Hate Crime Statistics Act of 1990 defines hate crimes as “crimes that manifest evidence of prejudice based on race, gender or gender identity, religion, disability, sexual orientation, or ethnicity” (U.S. Department of Justice, Federal Bureau of Investigation, 2010). While hate crime rates remained relatively steady over the past decade (Ingraham, 2015), they are now on the rise. According to *USA Today*, “the FBI reported hate crime incidents in 2015 increased by nearly 7%, driven by a 67% surge in such offenses targeting Muslims. . . . The FBI report also showed increases in the number of hate crimes committed against Jewish people, African Americans, and LGBT individuals” (Johnson, 2016). While national hate crime statistics for the year 2016 are not available as of this writing, the New York City Police Department reported a 35% increase in hate crimes in New York City in 2016 (Economist, 2016).

On February 15, 2017, the Southern Poverty Law Center reported that in their 2016 survey of ten thousand educators, “Eighty percent described heightened anxiety and fear among students, particularly

immigrants, Muslims and African Americans. Numerous teachers reported the use of slurs, derogatory language and extremist symbols in their classrooms” (Southern Poverty Law Center, 2017).

The rise in hate crimes nationally, and the prejudice which those crimes manifest, must be of great concern to educators. These acts indicate a backwards momentum, a return to fear and ignorance in regard to other cultures. This regression is also occurring outside the United States. In February 2017, *The Guardian* reported that “the number of anti-Semitic incidents in the UK rose by more than a third to record levels in 2016, according to data released by the Community Security Trust” (Sherwood, 2017). UK government statistics from July 2016 showed that hate crimes had increased 19% from the previous year and that “79% [of those crimes] were motivated by race hate” (BBC, 2016). On May 6, 2016, the organization Human Rights First reported that a new French report, by the Commission Nationale Consultative des Droits de l’Homme, showed a rise in the number of attacks on Muslims in France, as well as sustained targeting of Jews (BBC, 2017).

Behind each of these abstract statistics is a story of hurt and harm. On November 9, 2016, at Royal Oak Middle School in Michigan, a group of students turned the cafeteria into a frightening scene for the Hispanic children eating there. Students began pounding on the tables with their hands and chanting “Build a wall, build a wall,” referring to President Trump’s promise to build a 2,000-mile wall along the southern U.S. border to keep Mexicans out. One of the Hispanic students, Josie, a 12-year-old girl, took a seven-second video of the scene that was later viewed by millions worldwide. One of her friends had run from the building crying and other Hispanic students were also crying and frightened. In the weeks that followed, Josie, an A-student, was ostracized and eventually withdrew from Royal Oak Middle School. She had been criticized not just by other students but also some parents for shedding light on what took place in the lunchroom that day. Josie said the cafeteria incident wasn’t the first time she and her friends had experienced racism at the school. “I’ve had people make jokes about me and my culture,” Josie said. They make jokes about Mexicans. They make jokes about blacks. And it’s disheartening, and it hurts me physically” (Wallace & LaMotte, 2016).

It’s disheartening, and it hurts her physically. Why couldn’t the chanting children feel empathy for the Hispanic children’s suffering? What kind of social climate leads to racial scapegoating? Where will this kind of behavior lead? How can it be prevented?

OUR GLOBAL FUTURE

The U.S. Department of Justice reports that the motives of those who commit hate crimes are “thrillseeking,” protecting “turf,” and “scapegoating” inspired by “resentment about the growing economic power of a racial or ethnic group” (U.S. Department of Justice, 2001).

Protecting turf and scapegoating are on the rise in many parts of the world. For example, in the United States and Europe there are growing movements seeking to preserve a white, Christian national identity. Nonetheless, the world’s diverse peoples are increasingly mobile and intermixed. Efforts to reverse the internationalist trend with travel bans, border walls, and withdrawal from international alliances will not halt the fact that the number of global travelers, migrants, and refugees is increasing worldwide and will continue to do so.

In the United States alone, the non-Hispanic white population is steadily decreasing. Whites were 80% of the population in 1980, and down to 69% in 2000, according to data from the U.S. Census Bureau; projections conclude that “the U.S. is on track to becoming a majority-minority country by 2043” (Walsh, 2013).

More significantly, worldwide refugee populations are increasing dramatically. In 2014, nearly 60 million people fled war and persecution in their homelands, more than in any year since the United Nations began keeping records. In 2015, the number of displaced persons increased again, to 65 million (Negin, 2016).

Not only are the numbers of war refugees increasing, but also climate change is projected to vastly increase the number of displaced peoples. A “study in the British Royal Society’s scientific journal estimated that 72 million to 187 million people would be displaced by the year 2100 if no action is taken to upgrade coastal defenses” against rising sea levels (Negin, 2016). This process has already begun. Last

year, the Alaskan village of Shishmaref voted to abandon its ancestral home because their “tiny island had lost nearly 3,000 feet of land to coastal erosion since 1980” (Visser & Newsome, 2016).

Lastly, our human society is also threatened by the disregard for diversity of other species. “An international team of scientists [in 2016] . . . issued a warning that biodiversity is dropping below safe levels for the support and wellbeing of human societies” (Thompson, 2016). A recent two-year UN study found that, as the Associated Press summarized, “Many species of wild bees, butterflies and other critters that pollinate plants are shrinking toward extinction, and the world needs to do something about it before our food supply suffers” (Bornstein, 2016).

As a global society it will be fatal to shut down empathy, and to commit acts of violence and aggression against people different from ourselves. Diversity is essential to life and society, and empathy is essential to sustaining diversity. Multicultural literature and picture books often depict biological as well as cultural diversity and foster an appreciation for the wonderful variety of life on Earth. If we inspire schoolchildren to love the natural environments and peoples of the world, their generation may enjoy them, and we can hope, save themselves.

CONCLUSION

As Carl Sagan said about preserving life on earth, “There is no place else, at least in the near future, to which our species could migrate” (Sagan, 1994). Climate change is creating more refugees from diverse cultures and more plant and animal species extinction. The need for greater integration of cultures and shared resources will only increase.

Dana Mortenson, one of the confounders of World Savvy, an organization working to develop global competence in children’s education, asks “What are the values, attitudes, skills and behaviors that must be cultivated if we’re going to live in a peaceful world?” Her answer is that “what’s needed is . . . an openness to new opportunities and ideas. . . . It’s self-awareness about culture and respect for different perspectives. . . . Empathy and humility are big pieces of all of it” (Bornstein, 2017).

While only 22% of children’s books published in the United States last year had any black, Latino, Native American, or Asian Pacific American characters (Donnella, 2017), many multicultural resources do exist. The Empathy Lab in Britain (www.empathylab.uk) recommends several books, including *The Colour of Home* by Mary Hoffman, about a Somali child thrown into a foreign school environment, alone and without a friend, and *Mirror*, by Jeannie Baker, a picture book without words that portrays the lives of an Australian boy and a Moroccan boy and all the differences and similarities of their lives. At the Stone Center at Wellesley College, the nonprofit Open Circle (www.open-circle.org) promotes “children’s literature that supports social and emotional learning.” One of their book lists focuses on “the ability to take the perspective of and empathize with others.” They suggest titles such as *I Lost My Tooth in Africa* by Penda Kiakite and *I Love Saturdays y Domingos* by Alma Flor Ada. Thousands of multicultural picture books and young adult novels exist. It is up to our schools to discover and acquire them, and to prioritize the value of reading them.

Reading fiction cultivates empathy in a way that Internet use cannot. Reading multicultural fiction expands that empathy to a variety of people and environments. This is essential to human survival in our changing world.

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Florida's School Library Programs and Achievements: What Can Be Adopted in the Brazilian Context

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ABSTRACT

What motivated this research was the Brazilian law promulgated in 2010 stating that in 10 years all Brazilian schools should have school libraries. 24 American school librarians were interviewed with the aim of learning from their professional experience the most important points that could be extended to Brazil via transferability of models of organizing and conducting school libraries. Results were coded and categorized. One of them showed that Florida's programs to promote reading were effective, with the participation of most the librarians interviewed. Librarians demonstrated both their involvement in the book selection committees as their enthusiasm in engaging the kids. Getting children to be long life readers was stated as important for at least half of the interviewees. Since Brazilian libraries are failing in this first aspect of their role, this paper focuses on the importance of forming school librarians themselves as readers, so they can become good reading mediators.

Keywords: School Libraries, Brazil, Law, Policies, Reading. Literacy, School Librarians, Media Specialists. Curriculum, Interviews

INTRODUCTION

In 2010, it was promulgated a Brazilian law that stated that in 10 years all Brazilian schools must have school libraries. Six years later we notice that the National and the State School Parameters say nothing about school libraries and that directors and school teachers know little or nothing about it. They even don't know what a school library is for. Another major problem is that the librarian undergraduate and graduate schools at Brazilian Universities are generalists and almost never include courses that discuss school libraries. So, Brazilian Universities are not educating school librarians to work in all those school libraries that will be needed in the next few years. The overall objective of this research was to find possibilities for development and improvement for the school library curricula and for the Brazilian school libraries. It consisted of three research questions:

- RQ1: What advantages would a Masters' Degree requirement, like in USA, give to Brazilian school librarians to work in school library?
- RQ2: How can Brazil use the American example in school libraries and from their librarians to improve its own school libraries?
- RQ3: How can online courses in Brazil be improved for school librarianship education?

To answer these questions, the plan was to evaluate various requirements and American curriculum frameworks, and to evaluate approaches used in specific courses related to the formation of the school librarian. In addition, American school librarians would be in-depth interviewed. The main purpose of the interview was to investigate the librarians' impressions of their own training and the impact of it in their professional practice.

This work shows partial results of the research, regarding the data collected with the librarians and what contributions they can bring to the formulation of the Brazilian curriculum, so it does not intend to answer the three research questions. In particular, aspects related to the school library program, research and reading in the school library are focused.

SCHOOL LIBRARIES IN BRAZIL

Brazilian Law No. 12.244/2010 promotes the universalization of libraries in educational institutions over the country and is composed of 4 articles, which can be summarized as follows: the public and private educational institutions of all education systems in the country will have libraries, under the terms of this Law. For the purposes of this Law, a school library is a collection of books, video materials and documents registered in any medium for consultation, research, study or reading. At least one title for each enrolled student will be required in the collection, and it is up to the respective education system to determine the expansion of this collection according to its reality, as well as to disseminate guidelines for the storage, preservation, organization and functioning of school libraries. The country's education systems should make progressive efforts to ensure that the universalization of school libraries, in the terms established in this Law, takes place within a maximum period of ten years, respecting the profession of Librarian. (Law 12.244, 2010)

What pros and cons can be perceived in the analysis of the text of law 12.244? It is certainly positive that this is the first law that guarantees the presence of the school library in all educational establishments in the country, regardless of its level (whether elementary, middle, or high schools¹, or even at universities) or type (public or private). However, several points are at least questionable:

- 1) The law establishes a period of ten years for the country's education systems to conform to what has been established, but does not provide for penalties if this does not occur, nor mechanisms to evaluate the implementation of libraries and their quality.
- 2) The very understanding of what should be a school library in the text of the law is quite narrow. The school library is defined only in terms of collection. Nothing is said about technology, much less about a library program, based on reading, literacy and research activities, collaboration with teaching and curricular activities, among others.
- 3) The law does not guarantee, at any moment, the hiring of properly qualified librarians to work in school libraries. Its text is very fluid, when the terminology "respected the profession of librarian" is adopted.

This reflects the immaturity policies for school libraries historically existing in Brazil. In summary, it can be said that until now Brazilian efforts have focused only on seeking to promote access to the book, aiming to put the physical material in the reader's hand, without any initiative to mediate the reading process. Thus, the largest Brazilian initiative in terms of school library ever carried out is the so called "Library in the School National Program" (*Programa Nacional Biblioteca na Escola – PNBE*), which although received this name, has little or none effective relationship with the school library. It is a program that provides for the distribution of books in schools. Created in 1997, its main objective was "to democratize access to Brazilian and foreign literature for children and young adults, as well as to provide research and reference materials to teachers and students" (Paiva, 2012, p.14).

The Diagnostic Evaluation of the PNBE, a research developed in 2005 and published in 2008, demonstrates the lack of knowledge of the government, the school administrators, and the teachers themselves of what school libraries are (or should be). The situation is so chaotic that when visiting the sample schools to make such a diagnosis, the researchers did not specifically search for libraries, but questioned the existence of libraries or reading rooms. According to the evaluation,

As far as library conceptions are concerned, there is usually an emphasis on the physical structure, and a separation between it and projects to encourage reading. When asked about the library ideal that each person interviewed had, especially those who work directly with the reading rooms found, it was observed that no references were made to the role of the library as a promoter of actions aimed at encouraging reading and writing, but only as a physical space for depositing materials for such actions to happen under the guidance of teachers and coordinators, never of those responsible for the space or as the basis of a library program. (Brasil, 2008, p. 124)

¹ In Brazil, those would be called fundamental (1st to 9th grade) and secondary or middle (10th to 12th grade) school.

Of the total of 1087 individuals who composed the diagnosis sample, among which teachers, school directors, pedagogues, students, parents, and others, there were counted 5 librarians and 152 people responsible for libraries (without librarian training).

Despite the existence of book distribution policies, the absence of mediation, whether through the school libraries or in any other way, is felt when it is verified that Brazil is not a nation of readers. This is what the research Portraits of Reading in Brazil shows us, in its fourth edition. Its objective is to know the reader behavior, measuring the intensity, form, limitations, motivation, representations and the conditions of reading and access to the book - printed and digital - by the Brazilian population. In this research, a reader is considered anyone who has read, in whole or in part, at least 1 book in the last 3 months. So, non-reader is the one who stated that he / she had not read any book in the last 3 months, even though he / she has read it in the last 12 months. Using these definitions, in 2015, 56% of Brazilian population was composed by readers, and 44% by non-readers. But only 26% of Brazilians answered that they've bought any book in the last 3 months. Among all interviewees, the medium number of books read (in whole or in part) in 2015 was 2.54. From those, only 1.06 were read from cover to cover. (Failla, 2016)

Castro Filho and Coppola Junior (2012) present data from the 2010 Brazilian School Census, which show that school libraries in that country existed in approximately 30% of elementary schools and less than 60% of middle schools:

The School Census, conducted annually by Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira (INEP) is the most relevant and comprehensive statistical survey on basic education in Brazil (Brasil, 2010, p.1). In the Technical Summary - School Census 2010, the number of fundamental schools in the country with a library (Brasil, 2010, p.33) is indicated in the "Infrastructure" requirement, divided into two groups: 1) Schools of the first grades (1st to 5th grade), totaling 42,029 schools (30.4%); 2) Schools in the final grades (6th to 9th grade), totaling 36,417 schools (58.7%). This statistical survey is composed of primary, public (federal, state and municipal) and private schools, however there may be differences in the total of "attended schools", due to the incorrect concept of school library applied by the school administration. (Castro Filho & Coppola Junior, 2012, p. 31).

What this brief review shows is that the current Brazilian situation is that of a country that needs to install school libraries, who does not know their meaning and concept, even does not know what means a library program. Our country currently is incapable of forming readers, as well as it has not even reached the initial stage to be able to offer school libraries where the literacy is given.

METHOD

Data Collection and Analysis

This paper presents research results regarding the data collected through in-depth interviews with 24 American school librarians. As the researcher was performing sabbatical at Florida State University, a survey of the Leon County schools was originally conducted. According to publicly released data (<http://jobs.teacher.org/school-district/leon-county-schools#>), in 2014 Leon County had 42 school librarians (called media specialists) and 10 library assistants and technicians, for a total of 52 schools (including 38 public schools of which 24 were elementary schools, 8 middle e 6 high schools, and the others classified among private, virtual, university, special schools, etc.).

Eighteen school librarians from Leon County were interviewed (1 from school K-12, 4 from high schools, 5 from middle schools, and 8 from elementary schools). After that, trying to expand the comprehension, 6 school librarians from other counties were also interviewed by skype (2 PreK-12, 1 K-5, 1 from high school, 1 from middle school and 1 from elementary school) (See Table 1). The interviews were conducted from November 2016 through March 2017. They were all audio recorded for posterior transcription and coding, and their average duration was 50 minutes, with the longest taking 1h10m and the shortest 35 minutes.

As far as the designation used to express the facilities in which the librarians work at their schools, there were found: 17 Media Center, 2 Information Resource Center, 1 Learning Resource Center, 1 Learning Commons, 1 Media Resource Center, 1 Knowledge Center, and 1 Library.

Table 1. Profile of research participants

Respondent	District	School Type	Library Designation
R1	Leon/FL	K-12	Media Center
R2	Polk/FL	Elementary	Media Center
R3	Leon/FL	High	Information Resource Center
R4	Leon/FL	High	Information Resource Center
R5	Orange/FL	PreK-12	Learning Resource Center
R6	Leon/FL	High	Media Center
R7	Leon/FL	Middle	Media Center
R8	Leon/FL	Elementary	Media Center
R9	Leon/FL	Middle	Learning Commons
R10	Leon/FL	High	Media Center
R11	Leon/FL	Elementary	Media Center
R23	Leon/FL	Middle	Media Center
R13	Leon/FL	Elementary	Media Center
R14	Leon/FL	Elementary	Media Center
R15	Leon/FL	Elementary	Media Center
R16	Leon/FL	Elementary	Media Center
R17	Leon/FL	Elementary	Media Center
R18	Leon/FL	Middle	Media Center
R19	Leon/FL	Middle	Media Center
R20	Leon/FL	Elementary	Media Center
R21	181/IL (Handsale)	K-5	Media Resource Center
R22	Windermere/FL	PreK-12	Knowledge Center
R23	Needham/MA	Middle	Library
R24	Boca Raton, FL	High	Media Center

About terminology, only one librarian showed concern in being called a librarian rather than a media specialist. According to her,

That's because I think back in the '70s. When libraries became more than books. To make an awareness that libraries had technology, and they had audiovisual, and they have kits, more than just books. They changed the name to media centers, to try to keep up with the times. Now, I think that name does us a disturbance. Because not everyone knows what a media center is, and they don't really understand what a media specialist is. So, when you hear when the general public, the parent hears "your school is cutting media specialist", they might think "well, I know we are in tight budget times, you know, we can't afford having morning news program" or "we can't afford to have the video team" or something like that. But if you say, "Do you realize your school librarian has been cut?" that has a whole other meaning to them. They understand what a school librarian is. I think continuing to call ourselves media specialists and media centers from back in the seventies, because everyone knows now that libraries are more than books, that's understood, but what's not understood is that your school librarian and your school library is being cut, and not being funded. That's what people don't realize. But when they hear your media center is not being funded that doesn't resonate with them. So, AASL, American Association of School Librarians, that's our national group, about 5 years ago, I think, said "we are calling ourselves school librarians", that's the official term. Not everyone hear to that. Because of habit. You know, there were habit to call it media center, there were

habit in calling them media specialists. (...) And I think also it's important to go back calling us school librarians so that the general public understand what's happening with our field.

The others have demonstrated either to be satisfied or to not care about the denominations used to designate their professions (media specialist) or their places of work. The justifications were several, but always related to the fact that “we are more than a library”, either because currently the collection includes things that go beyond books, or because those facilities are no longer the space that values silence and concentration, as shown in the following statements:

We are not libraries, libraries are quietly study areas where people read either to seek information or to be entertained. Media centers, the movement, I would say that was probably around the 80s, Media Center was a multimedia emphasis because we had film strips, listening stations, audio books, visual, audiovisual content, we had CDs, then we had CD-ROMs, then we went to DVDs, and interactive DVDs. So, I do believe here, I encourage kids not to call it a library, it is a media center. In a library, you have to be silent. In a media center, you work together and collaborate. I mean, it's a philosophy that's different. But I think we are ready to, I don't want to go back to the word library, to me that's very closing, very narrowing, but I would move forward to an Information Resource Center.

We just got started with the name media center. It's just kind of float. I know some places they called theirs the IRC, so it's the Information of Resource Center and they just refer to it as the IRC. Well, part of that in going with being called a media specialist instead of a librarian even though, I don't care, they can call me whatever they want. Because now we deal so much in more than just books, a lot of my time is being dealing with this kind of thing, troubleshooting things, and helping kids, like we had one of the teachers, we just finished up a big project where they came in and they made movie trailers...

After collecting and transcribing all data, they were coded and categorized for further analysis. The free coding method was used with constant comparison, that is, with each new code that emerged, all passages from already coded interviews were revised, in order to review the consistency of the coding and the need for readjustment. Finally, the codes were categorized, generating the following frame of analysis.

Table 2. Codes and Categories for Data Analysis

Category	Code	Explanation
Background & Foreground	Continuing education	Workshops, events, courses, etc., taken or done by the librarian
	Decision to become a librarian	When, how, and/or why the person decided to become a librarian
	Formation	Courses, faculties, colleges, master programs taken by the librarian
	Job experience	Experience working as a librarian (how long has been working, places where have worked, etc.)
	Prior Jobs	Places where the librarian worked before, in other professions
	Teaching experience	Indication about the librarian having (or not) previous experience as a teacher
Master Program	Courses	Courses, subjects, or experiences that were mentioned as important
	Internship	Importance of internship during formation

Category	Code	Explanation
	Knowledge from other sources	Knowledge or content that was not acquired in the Master Program, that maybe could be included in the courses
	Online Master	Impressions about the modality - online or face-to-face - of the classes
	Assistant	Indication of presence of aides: assistants, volunteers, students, etc.
	Being a teacher versus being a librarian	Comparison between the two jobs
	Budget	Explanation about fund raising and budgeting
	Cataloging	How to catalog, software used, system used, genrefing, etc.
	Circulation	Circulation numbers
	Collaboration	Evidence of collaborative work with teachers in distinct levels
	Collection	How to make a purchase, criteria for selecting books, fiction and nonfiction sections
Job	E-books	Evidence of e-books in the collection and information about their use
	ExC3EL	Evidence of knowledge or use of ExC3EL Rubric or application for Florida Power's Library Award
	Need for advocating	Evidence of librarian advocating for her/his profession of for the work done in the library
	No routine	Indication that there's no routine in the job
	Operating times	Library schedule or operating times
	Research Model	Use of FINDS or BIG6 or any research model
	Tasks	Things that the librarian do at the school library
	Teaching role	Instructional role of the librarian, evidence of teaching eventual or scheduled classes
	Facility name	Why using any specific name and the opinion of the librarian about it
	Librarian per school	Indication of presence (or not) of a librarian in all schools of the county
School Library	Place for information	How do the librarian conceive a school library
	Place for the kids	How do the librarian conceive a school library
	Social context	Influence of social and economic context at school libraries and students' lives

Category	Code	Explanation
	Type of school	Classification when indicated by the respondent (elementary, middle, high, private, community, etc.)
Reading	AR	Librarian impressions about the Accelerator Reading Program; evidence of participation, etc.
	Librarian Reading	Importance of librarian and teachers to be good readers
	Reading Award Programs	Student participation and librarian as part of committee
	Student Reading	Getting the students to read
	Students achievement	Impact of reading & library in kids results

As can be seen, there are a lot of data to be processed, and its analysis can promote numerous and diversified works. In this paper, the focus is on the following aspects: the importance of the reader's formation in the school library. To do so, the coded data marked with shading in table 2 was used. The results will be presented making use of, whenever possible, excerpts from the interviews to corroborate the analyzes. Respondents will not be identified.

RESULTS

One of the research points of interest was what courses should be included in a Brazilian library curriculum in order to better contemplate the formation of school librarians. To answer this question, my strategy was to ask American school librarians what courses they had taken during their training that they considered important or useful to them in their professional lives.

According to the 6A-4.0251 Specialization Requirements for Certification in Educational Media Specialist (Grades PK-12) – Specialty Class (2000), the specialization requirements for certification in educational media specialist are

(1) *Plan One. A bachelor's or higher degree with an undergraduate or graduate major in educational media or library science, or*

(2) *Plan Two. A bachelor's or higher degree with thirty (30) semester hours in educational media or library science to include credit in the areas specified below:*

(a) *Management of library media programs;*

(b) *Collection development. Courses in this area include: evaluation, selection, and maintenance of library media resources in print and nonprint formats;*

(c) *Library media resources. Courses in this area include: literature in both print and nonprint formats for both children and adolescents;*

(d) *Reference sources and services. Courses in this area include: print and electronic resources and techniques for providing information services;*

(e) *Organization of collections. Courses in this area include: classification and cataloging principles and techniques; and,*

(f) *Design and production of educational media.*

Since the sample of the research was composed mostly by Floridian librarians, I was expecting to have one of the six areas specified by the rule as the answer to the question. Without a doubt, the most common answer revolved around the theme of reading, being included in the area (c) literature for children and adolescents. This was unexpected for me, as a Brazilian librarian professor, because in the curriculum offered at my home institution, the only discipline related to reading is optional, being attended only by those who have an interest, it is not compulsory for curricular integration, and in its programmatic content, the students read at most four literary titles. The interviewees showed that their

reading course was chosen according to the type of school library they were interested to work with - elementary, middle, or high school libraries - so that the reading indications reflect the appropriate age grades, from small children to young adults. They all talked about having extensive reading lists, fruitful debates about books read, discussions about authors, readings of reviews, etc.

Those were classes where you read a lot of children's literature, from the perspective of meeting information needs of children and young adults so... how fantasy books tapped to the children's imagination, or fulfill a need that they have for information, how the different genres, how non-fiction is read, you know those kinds of things. So, fulfilling the needs of child through books or... (...) At the time, mostly we read books and talked about how they help kids with their needs through literature. Those I think that were important for a school librarian because as someone who had not taught, I knew some authors, I knew some book titles but not every, I mean that's really where I learned about the authors that were out there, the book titles, genres...

Like, they would give us, I'm trying to remember...I think we were giving lists of titles of novels like the main authors for the age approach and recommended readings and we had to just read, read so just that we were familiar with the different authors for kids, to know who writes those types of books.

At different points in the interview, the respondents always spontaneously mentioned (they were never asked about it) reading programs applied by their district or the state school librarians' association (mostly FAME – Florida Association for Media in Education), as well as the way they applied them in their schools. The Accelerated Reader (AR), the Sunshine State Young Readers Award (SSYRA), and the Florida Teens Read (FTR) were mentioned.

Accelerated Reader (AR) is a software designed to facilitate student reading growth through practice in an educational setting. It has been purchased by many school districts and used in both elementary and secondary schools to encourage and measure the frequency and accuracy with which students read. Its application involves the assessment of a student's reading level through a computer adaptive test. Several studies have been reported on the effectiveness of using AR in the classroom (Krashen, 2002, 2003; Johnson & Howard, 2003; Pavonetti, Brimmer, & Ciplewski, 2003; Mallette, Henk, & Melnick, 2004; Thompson, Madhuri, & Taylor, 2008), educators have argued that its use does not teach reading for comprehension; but this discussion is not the focus of this work. The AR was not even part of the interview script, but it was mentioned by several interviewees as being, according to them, mandatory in elementary education in some Florida counties. Thus, librarians are forced to use it and eventually mentioned it among the activities of their library routine. Some have expressed their displeasure emphasizing that the AR requirement restricts the library's collection only to materials that are part of the program as well as restricts children's choice to reading only what is appropriate to the level in which they are. Others, on the other hand, demonstrated enthusiasm for the program as a way to encourage reading, describing how they use it to capture students' interest, and engaging them in reading activities.

It's a program that is computer based, and the books are coded, and they read a book and they take a comprehension quiz on the book when they get finished. They get points for this, and that's really big in our school. So, consequently, our library is very busy, because the kids want to get the points from reading the books and taking the quizzes.

...and, of course, our school AR is big too. They have awards. Our school is being Knight. So, if they reach 500 AR points awards they get knighted, and so every nine weeks I put a list and tell them how many points they have and what point clubs and what awards they get for those, and the principal dresses like a queen, and knights them, and they go on the stage. None of it cost a lot of money, but it gives them recognition, which they like, so...

Unlike the AR, which has been imposed by some districts to be applied in school libraries (at least at elementary levels), the FTR and SSYRA are award-winning programs to which the participation is voluntary. There was also no question in the interview script about those, they were spontaneously mentioned by librarians in two different contexts – when they wanted to tell that they were part of the reading committees that selected the books that would be considered for awards in the following year or

when they wanted to publicize their students' participation reading the award books and voting for the winners.

Basically, what differentiates FTR from SSYRA is the level or grades to which they are designed: the former is a

student-choice reading award program to determine which YA book wins the annual award as the favorite of teens in Florida. The reading list is comprised of fifteen titles that have been chosen by a committee of twelve school librarians specifically to engage high school students (grades 9 through 12) in reading and reflect their interests as well as represent a variety of genres, formats, reading levels, viewpoints, and ethnic and cultural perspectives (FAME, 2017a).

The last is a “statewide reading motivational program for students in grades 3 through 8, sponsored by the Florida Department of Education (DOE) and Florida Association for Media in Education (FAME)” with the purpose to

encourage students to read independently for pleasure and to read books that are on, above, and below their reading level in order to improve their reading fluency. Sunshine State books are selected for their wide appeal, literary value, varied genres, curriculum connections, and/or multicultural representation. The SSYRA committee is comprised of 20 qualified school librarians located throughout the state of Florida, subdivided into two committees- grades 3-5 and grades 6-8 (FAME, 2017b).

In both cases, once the committee chooses the list of books for that year, the student who has read at least three of the selected books is eligible to vote, for the period stipulated for it, in the book he / she liked best. The author of the most voted book receives the award at the FAME annual congress.

During the interviews, the librarians who participated in the committee claimed as advantages of their participation, besides the possibility to read books and debate them with their students, the fact that the publishers send them these books to be considered for the lists of the following year free of charge and, after doing the reading and selection work, they can incorporate the books into the library collection of their schools at no cost.

I have a small group of students, I explained to all my 9th graders, about the committee, the Teens Read Committee, so I have a display, the display out there that says: "read with me". Those are all the books that we are considering and we are going to tell them "these are book that we are considering", and I want you guys to give me feedback and put some bookmarks in there, or write a review. (...) I have a tea and talk, or a teen's read tea, we've had two so far, I will show you the pictures.

And also, I am extremely fortunately, through FAME, being on the Florida Teens Read and the Sunshine State, in such as these read committees, I get the books from the publishers. So, that we can read them to consider them for those lists. So, our school is very fortunate in that since once I've read them and gone through then I can put those on to our collection.

They also shared the strategies they use to promote reading the books and the students' participation in the program: they distribute prizes ranging from stickers, pendants to be hung on chains, they put posters telling how many books each child has read, with their names and pictures, they do parties on voting day, inviting authors to talk with students (even via Skype).

Yes. If they read at least three, they get to vote. I had a big voting party last year, we had a ton of kids and four of the authors of the books last year, we Skyped with them. And it's funny because I wasn't sure I would get anybody so I send it out an email to about 8 just to see what would be possible to Skype in a certain day, blah blah blah, for about 20 minutes or whatever, and then four of them said yes, and I was like "oh! oh!". But the principal gave us permission to just do it during the whole lunch hour, all three lunches, because our kids go in sections to lunch during third period and so he gave permission that if the kids wanted to, they could stay and miss their 3rd period class, so that they could hear all four of the authors, and most of the kids did that, and we had a ton. I don't remember, the whole middle area was just packed, and we fed them lunch, our parent organization paid for them to get sandwiches, we made cupcakes and

had drinks. So, they had a big lunch, and then Skype with the authors, and they vote. They vote actually as they came in, they got their ballot, they voted, they put it in, got lunch, set down and we got Skype. That was fun. I need to get on a stick about that and see if I can round up some this year. Maybe not sound out so many this time. So, I don't get caught with that again.

The Sunshine State, yes. When I first got here, in the first couple of years, nobody seemed to even know about them, I don't know how much participation they were doing in the elementary school, but especially since I got on the committee, it's like pushing it and pushing it and pushing it. Now, I would say more of our county schools are participating more like, I finally got the other middle schools onboard but come on it's easy, I mean, you just, whatever. They are starting to get a little bit better. Our kids are maniac. (laughs) Just to give you an example, I'll show you over there, that window over there that has a big sun on it, the Sunshine State books, that's where we keep them all, and I've bought like 10, basically, of each title, and there's 15 titles. So, I have basically a hundred and fifty books over there, I see right now there's probably about six or seven, they are all out. They're all checked out.

This Sunshine State books, that's really big at my school, we have a club and they, the kids read the books, five of the books, and then they test on the books, and they get a charm for the books, and they get a t-shirt when they get to participate in the district contest for it. So, it really promotes, it really gets them excited about it, because they like, they work for, I will show you the charms. They work for the charms, their names on the Sunshine Florida State, and they get a neckless, for all the books that they have, so, that's one way...

Finally, as the following selected statements show, in addition to mentioning the reading programs, during the interviews the school librarians emphasized the influence of reading on students' performance in school achievement tests, as well as the importance of the school librarian being a reader, to be able to carry out well his / her role as mediator.

Do you know about the grading systems, where they give a school a grade based on the student scores on the Florida standards assessment? Our school always has scored an A since they came up with that system, and I think a big part of it is because of the amount of books that the kids read on their own.

I think something that's underrated in education all together, not just librarians but teachers too, but specially librarians, you have got to read the literature. If you are going to work with children and recommend the books, you have got to read the books.

Those books deserve to be read too but I don't think you can be a good librarian and help your children become readers if you are not reading as well. And I think that it's just a shame when I talk to librarians and I say "have you read?" and they say "no, I haven't read that" but they haven't really read anything, do you know? I think that's a shame. Makerspaces are hot and that's fine, put out the legos, let's the kids build robots, it's fine. But that can't be all we are doing. Because who else is putting books in kids' hands? Well, it's our job!

The last question in the interview was a question for the respondent to express freely by telling what she or he considered most important in her or his school library. There were basically three groups of responses: the first group consisted of librarians who considered that the school library should be the "place for information" or the "information hub" of the school, serving as the first place where anyone would search for any kind of information. And that even if the library itself was not capable of giving the requested information, it would be able to act as a mediator, directing the user to the correct place where to find the information. The second group was composed of librarians who mentioned that the library was the "children's place". For them, above all, it should be a place where children would feel welcome, comfortable, a place where there would be sharing and collaboration, the opposite of a place of order and silence. Finally, the third group considered that the most important thing was that the library was the "place of literature and literacy". The place where children learned to become lifelong readers and lifelong learners, the place to let them keep their enthusiasm and pleasure in reading.

CONCLUSION

Among the six topics required for the certification of the Florida media specialist listed above, the most mentioned in the interviews conducted is just the least contemplated in the curricula that form the Brazilian librarians. One of the objectives that led to the conduction of this research was to verify what contributions the American experience could give to the Brazilian curricular reformulation. Currently, the formation of the Brazilian librarian is generalist, and is not able to prepare the professional to work specifically in the school library environment. It fails, precisely, by not preparing the librarians for their instructional role and, as discussed throughout this work, by not involving them with literature. Thus, the Brazilian school librarians know little about the appropriate authors for the children and adolescents reading. This is evidently reflected in a weak capacity to getting the kids to be readers.

Brazil is offering, politically, an opportunity for growth to the school environment by creating a legislation that regulates the existence of school libraries in all educational establishments. For this to become an effective action, the path is long. As already discussed, making available only the collection will not lead to any result. Offering libraries must be more than that. Through this research, the American experience wisely showed us that the initial path is that of reading. One cannot talk about a robust library program, with literacy, teacher-librarian collaboration, and so on, in schools where there are no readers. Children who cannot read are unable to judge the value of information.

As our courses in the Brazilian bachelors for librarians offer with quality the other items proposed in the Florida requirements for certification in educational media specialist, in particular with regard to the topics collection development, reference sources and services, and organization of collection, it is suggested the investment in teaching the themes related to reading, literature, literacy, and the instructional role of the librarian for those individuals wishing to work in the field of school librarianship.

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School Library: How to Break the Walls

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ABSTRACT

The present paper analyzes the possibility of the school library breaking the four walls to which we are used to, using data collected during field research for a doctorate research, from observation and interview with students. Three schools in Belo Horizonte city were researched, one of which really broke the walls of the library, taking the collection to the classrooms. Preliminary observation data showed significant differences among the use of the three spaces, which became clearer in the interviews. The results showed that the differential is, however, in the performance of the professional present in this place. It was evident that the school library should concern about the professional, regardless of the space. Breaking the walls of the library was not the most effective solution to bring students closer to reading and the available materials. So, it is up to the librarian, and not the collection, to break the barriers.

Keywords: School Library, Digital Natives, School Librarian, Media Specialist, School Library – Educational Role, Ethnography

INTRODUCTION

It is known that the post-industrial era is characterized by a society centered on information and knowledge, having its economy based and dependent on communication. Thus, the so-called Information Society brings with it new educational paradigms as emphasized by Furtado (2004):

Since one of the new paradigms of education is learning to learn; that is, acquire the ability to learn, knowing how to obtain, use, and generate new information; information systems become extremely important, as they can contribute to education democratization, that is, to facilitate and increase access to education, and, moreover, to contribute to the information received to become knowledge, improving the quality of life of citizens. (Furtado, 2004)

This new educational paradigm gives the individual the responsibility for her/his learning, without worrying about the context in which he/she is inserted. Morin (2006), at the request of UNESCO, has elaborated a book where he analyzes the current society and draws reflections on what he calls the seven knowledges necessary for the education of the future: 1. the blindness of knowledge (it is necessary to know what really means to know); 2. the principles of relevant knowledge; 3. to teach the human condition; 4. to teach earthly identity; 5. to face the uncertainties; 6. to teach understanding; 7. the ethics of humanity. Through the reflections of Morin (2006) it is clear that thinking about the education of this century is to go beyond what was hitherto posited. In this sense, the student ceases to be a repository of the knowledge transmitted by the teacher and becomes a terrestrial citizen in formation, with her/his complexity and living in a complex society.

Given the current social conjecture, in the world dominated by information, where the subjects have difficulties in being inserted in this process, the role of the school library and the librarian is highlighted, since this space and this professional have an important role in the training of students, within an information literacy perspective.

This article intends to reflect on the current school library in the Brazilian context and its way of acting with the current students, the so-called digital natives. For a more effective performance, one option is the rupture of the library walls.

The article presents, first, a review of the literature about school libraries in Brazil. It briefly reviews the history of school libraries in the country, presenting the paradigms of the 1970s, 1980s and 1990s, which continues to this day. The concept of informational literacy and the instructional role of the

librarian in Brazil is discussed in the sequence, emphasizing that in our country the librarian does not receive teacher training. Finally, the current public of school libraries, the digital natives, are discussed. From there, the methodology of the research is presented.

Thus, from preliminary data of a doctoral research, students from 03 different schools in the city of Belo Horizonte were observed and then participated in an ethnographic interview.

Among the 03 schools, one really adhered to the concept of breaking walls, undoing the library space, and forwarding its collection to so-called knowledge halls, where students have their classes daily. The collection was arranged by age group and subjects, according to each hall. The main results are presented and discussed. In the last section, along with the conclusions, the limitations of the work and the suggestions for future research are presented.

SCHOOL LIBRARY IN BRAZIL

The history of the school library is closely linked to the history of education, which in Brazil is presented in a lacunar manner. Its origins are based on religious schools, whose declines begin in the late years of 19th century, which opens possibilities for the installation of so-called normal schools. The normal course had the objective of training teachers to work in the teaching of primary education and was offered in public courses of secondary level (today high school). On the creation of the first Brazilian school libraries Válio (1990) emphasizes that

The creation of school libraries, as they are understood today, began to happen in the country with the foundation of normal schools. The first to be created was the School Library of Normal School Caetano de Campos, São Paulo, on June 30, 1880, and, years later, on June 16, 1894, the Library of the Gymnasium of the State of the Capital was inaugurated (INL, 1944). (Válio, 1990, p.18).

The implantation of the first Brazilian school library, with the characteristics that we know today, took place at the end of the 19th century, however the debates and reflections about this space and its functions only started in the country from the middle of the 20th century. An analysis of these discussions makes it possible to perceive changes in the concept of school libraries over the decades, as well as in their conjectures and challenges. The changes also affect the performance of the librarian in the school context. Vianna, Carvalho, and Silva (1999) analyzed a series of documents and found 16 (sixteen) concepts for the school library. In the first studies developed, the school library was seen as a laboratory, a place where school research could be conducted. Among the authors cited in this review, Costa (1975) already glimpsed the pedagogical role of the library. The vision of the place as a laboratory is often taken up in the various concepts in the course of time.

The analysis of the various concepts for the school library shows changes during the 1970s, 1980s and 1990s. These changes also reflect changes in Brazilian education. Before the 1970s, what predominated in the national literature on school library were manuals for the implantation or maintenance of these spaces. This can be credited to the fact that the debate did not characterize the education of this time, having the textbook as the basis of the teaching-learning process. Within the traditional concept of education, in which a student's cumulative and repetitive ability should be developed, the school library had its role restricted to the mere deposit of a book, and its basic function was considered to be the reproduction of the repressive and unilateral action that happened inside the classrooms. In this way, the school library was not valued, since the teacher and the didactic book were considered as the only transmitters of knowledge.

In the 1970s, the school was demanded to form economically productive subjects, which marked the capitalist model of education. It was also the moment when discussions about citizenship surfaced. In August 1971, Law No. 5692 (Law N. 5.692, August 11, 1971) proposed a reformulation of teaching, which had as its general objective to provide the student with the training of skills that enable their development for self-fulfillment, for work and for conscious exercise of citizenship. Thus, the humanist formation gave way to actions aimed at forming a qualified workforce. These changes are also reflected in school libraries, which became to be understood as information and culture centers serving the school community. School research gained strength as a teaching-learning method and the training of readers is

one of the great functions of the library. However, this change of vision of the library was founded as an expectation, not reflected, still, even nowadays.

The 1980s bring with it the discussions about new technologies. Law 7044/82 (Law N. 7044, October 18, 1982) modifies Law 5692/71 (Law N. 5.692, August 11, 1971). However, it maintains four ideas considered fundamental as teaching objective:

- development of the potential of the learner;
- self-realization;
- preparation for work;
- preparation for the conscious exercise of citizenship (Silva, 2001, p. 40-41).

For the school library, this decade has brought an impetus in the discussions, from its conceptualization to the ways of enjoying the benefits offered by the new technologies. Contradicting the traditional concept of the school library, the literature of the time showed the importance of this space as a resource to the teaching process, serving as an alternative place for the development of this process. By placing itself as an instrument to support teaching, the library came to be necessary and began to offer its services to teachers, expanding its scope of users.

The expansion of the library use by the school community allowed students, who until then limited themselves to the information contained in the textbooks, other options in the search for knowledge. Faced with this reality, the practice of school research gained space in the arena of debates, although pointing out positive and negative points. Among the negative points, the most criticized was the fact that, generally, the school research in the library has become synonymous of mere copy. Together with the debate on school research, the importance of training and forming readers gained strength in the literature of the area. Although the library is a way of guaranteeing the citizen the right of access to reading, the way of undertaking such an enterprise had not yet proved fully effective. It is also noted that despite so many speeches in support of the importance of the library, what was perceived in the 1980s is that it was still precarious.

From the 1990s, the students became the focus of action: their potentialities were developed, their freedom was recognized and continuous learning was stimulated. Thus, the library gained new functions, really seeking to contribute to the formation of the student. The Information Society required a new model of individuals, more flexible, critical, aware of change, aware of their rights and duties. This change is also reflected in education and, consequently, in the school library. The individual should be able to select what is relevant to them, giving priority to reading, research and selection skills. Thus, the teacher's posture might change and the school library appeared as the place most conducive to the exercise of these skills.

The 1990s took up previous concepts, sometimes emphasizing the importance of information, and the importance of socio-cultural coexistence. The research regained importance with the Internet advent, but still presented problems. Also, the reading came to be valued, but emphasizing its ludic aspect, of enjoyment and pleasure.

Researches developed in the 1990s in Brazil show that the school library was not present in most schools, especially in public schools. When they existed, they still had several problems, such as lack of working conditions, lack of human resources, collection and funding investments.

It is also perceived that the studies seek, for the most part, to establish the concept of school library. Thus, Silva (2001) makes a brief summary where she points:

- *the need for the school library to be integrated with the work proposed and developed in the school and especially in the classroom, serving the school program and supporting its activities;*
- *the importance of the school library to provide informational support to teaching, constituting an extension of the classroom;*
- *the contribution of the school library to the improvement of teaching and to a better understanding of the school educational action and reduction of the cultural distance between the students and their social environment;*

- the school library's performance as an instrument of pedagogical support, to meet the individual interests of the students, allowing them to acquire personalized knowledge;
- the school library's commitment to developing reading habits, research, attendance, as well citizenship;
- in some cases, the school library role as a way of filling the lack of a public library, among others (Silva, 2001, p. 24-25).

What can be seen is that the school library has not yet solidified in Brazil. Not all schools have this equipment, and even fewer are the number of librarians in their staff. Garcez (2007) points out that only 1.4% of educational institutions that have a library also have librarians. This situation denotes that the importance of the school library in Brazil remains only in theory.

Among the possible possibilities, what can justify the unsatisfactory performance and the precarious functioning of the Brazilian school libraries is a consequence of the political actions related to this area being fragmented in the country.

The implementation of a program or system of school libraries in Brazil should be part of plans, goals and strategies of the bodies responsible for educational policies, as well as be supported by legislation and linked to the set of laws governing the educational system (Furtado, 2004).

Another problem that may contribute to this reality is the lack of knowledge on the part of the teaching staff about the role and possibilities of the school library in the teaching-learning process (Silva, 2001).

This delicate situation of school libraries was experienced in the United States in the 1980s, when they were ignored in the document *A Nation at Risk: the imperative for educational reform* (National Commission on Excellence in Education, 1983). At the time, this absence caused an uprising in the American librarians, who initiated movements to show the importance of the library in the formation of the students. That's how the movement of information literacy gained strength. (Campello, 2003).

Information Literacy and the Librarian Instructional Role

Literature indicates that discussion of Information Literacy appeared in 1974, in a paper by Paul Zurkowsky (Dudziak, 2003; Melo & Araújo, 2007). He used the expression *Information Skills* in a report to the National Commission on Libraries and Information Science entitled "*The information service environment, relationships and priorities*" and was interested in creating a 10-year plan for student training for the consumption of information products. "The expression *Information Skills* referred to people able to solve their information problems using relevant sources, which included the use of technology" (Melo & Araújo, 2007).

The Brazilian scientific literature still debates about the concept of informational literacy and about the best translation of the term from English. According to Campello (2003), Caregnato (2000) was the first author to mention the expression in Brazil:

new ways of designating the educational service offered by libraries to their readers: information skills development and information literacy. The terms used already indicate a concern with the expansion of the concept and are particularly attractive when the talking about information society. (Caregnato, 2000, p.50)

In 2003, Dudziak defined information literacy as:

[...] continuous process of internalization of the conceptual, attitudinal and skills fundamentals necessary for the permanent understanding and interaction with the informational universe and its dynamics, in order to provide lifelong learning (Dudziak, 2003, p. 28).

The emergence of the information literacy term in Brazilian literature of library and information science brings reflections of authors who realize the need to expand the educational function of the library, building a new educational paradigm for school libraries and, thus, expanding the concept of user education and rethinking the role of the librarian in the learning process (Campello & Abreu, 2005). According to this premise, the librarian or the media specialist has a different role in the users' education processes, in order to better meet their needs in the information society. These new assignments help the

librarian to stop being just a professional with technical functions and to interact more with the users (Silveira; Vitorino & Santos, 2013).

Thus, it is necessary to break with the notion of library as a mere appendage of the school, making it a vital space in the teaching-learning process, both for the students and for the school collective (Dias & Santos, 2004). *“It can be considered that information literacy is a step forward in the path of the librarians’ career, in the search for more space for exercising their educational role”* (Campello, 2009a, p.7).

Informational literacy has, in its concept, three basic articulations: information society, information technology and constructivism. Faced with these concepts and the new perspectives of society, one can see that the concept of information literacy is composed of the following items:

- Investigative process (or research process)
- Active learning
- Independent learning
- Critical thinking
- Learning to learn
- Lifelong learning (Dudziak, 2001, p. 61).

These components follow the premises of the new educational model, in which the subject is responsible for building her/his knowledge and for its constant updating.

In addition to being an important tool for the teaching-learning process, the school library needs to think about its performance. It should go beyond what is expected of a traditional library, that is, it is not enough to organize and make available access to the collection, but it is necessary dynamism and insertion in the pedagogical aspects. As Roca (2012) mentions, *“it is clear that the school library must be linked to reading practice and informational competence, since these curricular contents require and justify the continued use of the library.”* (Roca, 2012, p. 15)

To function in an educational way, the school library should have its work developed with the collaboration of the school's faculty team. As Felix (2014) attests, in schools where the school culture favors this collaboration it is possible to find effective school libraries. In her research, the author testifies to the existence of the educational role of the school library in some Brazilian school libraries and emphasizes that,

finally, as a synthesis, a conclusion that emerges is the importance of the articulation of teachers, librarians and principals as determining agents for school libraries to act effectively in the learning, education and orientation of students. (Félix, 2014, p. 111)

School Librarian Training and Working

The librarians, especially those who work in the school context, should be willing to serve as a catalyst for information, in a dynamic and integrated way to the pedagogical work of teachers. In this way, they should be competent not only in library techniques, but also should have appropriate connection to the area of Education.

On the other hand (at least in our country),

they must be attentive, not confusing their function, that is, having a clear definition of who the teachers are and who the librarians are, since the librarians were not prepared to be teachers just as the teachers were not prepared to be librarians (Ellwein, 2006, p. 91).

In the Information Society, in which information is really the center of the discussions, the school library can serve as a center for cultural dissemination, through activities such as storytelling, lectures, meeting with writers, among others. To do so, it must present a suitable and pleasant physical environment that would attract students (Furtado, 2004).

However, the role of the librarian in the school environment is not always easy, as shown by the research by Morais (2009), in which all the librarians interviewed stated that they were not prepared at the undergraduate level to coordinate school libraries (in Brazil the requirement to become a librarian is to have bachelor's degree in library science and to be accredited to a regional council of librarianship). On the other side, Campello (2009b) emphasizes that Brazilian librarians are aware of their role as educators,

as well as the technical functions they need to perform. However, they face difficulties, ranging from the small number of people on their staff to the lack of knowledge, on the part of the faculty of the school, of the functions that the librarian should (or should not) play.

Campello (2009a) has identified in her work that the educational role of the Brazilian librarian, despite appearing in the discourse since 1960, still does not reflect the practice. And one of the obstacles to this role being played more efficiently is the lack of interaction between the librarians and the teachers.

The question of the formation of the librarian to act in the school context can be improved through postgraduate programs, as Pereira (2009) demonstrates when analyzing the creation of the Specialization Course in School Library in the Anísio Teixeira Higher Education Center, in Espírito Santo State. According to the author, the course sought, in its scope, to provide the librarians with the necessary knowledge to act in the educational context. It can be noticed that the creation of specific courses for the performance of the school librarian would be a good option.

Faced with so many issues, as Castro and Calil Jr. (2014) point out, school librarians should be alert to the new public in schools: digital natives. These young people need differentiated attention and actions focused on their profile. This is another challenge for librarians working in schools.

Digital Natives

We are facing a generation of people who have been born with the internet, computers, and video games. It is a generation that dominates well the technology, uses cell phone, tablet, television remote control. This generation can assume different denominations, according to different authors. If the nomenclature is not well defined, the characteristics of this group are: those born after the invention of information and communication technologies, who spend much of their time connected, which makes the differentiation between real and digital not always clear to them.

For the purpose of this article we chose to use the term Digital Natives, according to Palfrey and Gasser (2011), who characterize them as those who have access to digital technologies, have the skills to deal with these technologies and spend most of their lives connected, without being able to distinguish their life online from their offline experience.

Lemos highlights (2009) that this generation is made up of subjects who want information quickly and are accustomed to multitasking. Thus “digital natives live immersed in different learning communities, opening several windows at the same time” (Lemos, 2009, p. 39).

Information Science, mainly Librarianship, in Brazil, still focused little on the topic of Digital Natives. The search in databases has few results, which demonstrates the need to reflect more about it. Especially in the case of the School Library, which acts directly with these new subjects, it is essential to understand them and understand what they think about the library and the librarian.

METHODOLOGY

The research was developed in two stages, the first being the non-participant observation, and the second the interviews with students from an ethnographic perspective. The research was previously submitted and approved by the research ethics committee, since in addition to involving human beings, it involved minors. Three schools were searched, each with a specificity in the school library issue.

School A is public, located in the municipality of Belo Horizonte, and has what we can call a traditional school library. The school serves students from 6 to 14 years old, in fundamental school (grades 1-9) and has classes in 2 shifts. (In Brazil, students have classes in a shift of about 4 hours and a half. There are students who study in the morning, others study in the afternoon, and some schools offer the night shift for students who work or engage in other activity during the day. Teachers usually teach in more than one shift.) In this school, the research was developed in the afternoon shift, with students from 12 to 14 years old (grades 7-9, approaching the American middle school). The library is in the back of the school, and has a good physical space. Its collection is placed on shelves and there are four tables in the space. It does not have the ideal capacity for an entire class at the same time, but when it is necessary some adaptations can be made. The responsible librarian works in this and also in two other schools, so she acts as coordinator. In addition to the librarian, the library staff is composed of 2 library assistants and

2 teachers in function deviation. The library is open uninterruptedly from 7:00 am to 6:00 pm, including lunch time.

School B is a private school, for K-12 students, and has a small library with a limited collection. The school library, as in school A, is also located at the back of the school. In this library, the operation is very restricted, being opened 12 hours a week with the librarian, to attend the 2 shifts. In this way, the library functions for a few periods in the week, which does not create a habit of library use by the students. Although the librarian is only present at school for a few hours a week, some teachers use the space for diversified classes. In this school, the research was performed in the morning shift, including students between 14 and 18 years old, grades 8-12.

School C is also a K-12 private school, but it has a very special teaching method. Its method presupposes a change in the teaching perspective. The lectures were replaced by a methodology of individual study guides, in the perspective of inquiry learning. Within these premises, the traditional classrooms were transformed into halls of knowledge, where the students of the same cycle (the cycles for them correspond somehow to the grades) share the space and the teachers. Thus, the library, in 2015, also changed: the collection was arranged in the knowledge halls, according to the age group and the disciplines/subjects of knowledge. There is a librarian that works in the school, whose function is related basically to the collection technical processing. The users control the circulation themselves. Therefore, during the whole period that the student is in school, in class, he is present in the library or, at least, he is near some part of the collection. The research was performed in the morning shift, with students aged 13 to 18 years, corresponding to grades 9-12.

The observation occurred in the period of 03 (three) months, in place, according to each observed library system. The months of observation served to know each school and, according to their specificities, the observation was different in each one. At school A, the observation was held in the library during the whole class shift. This choice of place of observation was due to the fact that the library was busy and used by the students. At school B, since the time the library was opened was short, the students rarely attended the space, so it was decided to do the observation in the classroom, following one of the teachers of the school. Finally, at school C, due to its own characteristics, the observation was made in the hall of knowledge of Languages and Humanities, where classroom and library were in the same environment.

OBSERVATION RESULTS

The observations pointed out some questions for reflection. As said, in each school the observation was made in a different way, but always focused on the students, so as to know them and to understand how they deal with the information, the books, and, consequently, the library. At school A, it could be observed that, at the beginning of the semester, most of the students looked for the library space as a quiet place to use the cell phone. Thus, about 15 students were seen at break time (they usually have a break time of 15 minutes between 3rd and 4th classes), lying on the floor using the cell phone. This situation changed over the months from the work of the library staff, who sought to carry out activities that stimulated the use of books and library space for reading.

At school B, the observation began in the library, but with the dismissal of the librarian at the very beginning of the fieldwork and the short time that the library was open to the students, we began to observe the classroom of a certain teacher. Thus, we could get to know the students of 06 classes, following how they seek the knowledge and deepening the relation with the subjects of the research. It could be noticed that, for the most part, the boys showed more interest in the class than the girls. In addition to showing more attention, interacting more, relating the new information to the previous information, they promoted many reflections beyond what was being explained by the teacher.

At school C observation made it possible to see in the same space the lesson and the use of the library. It was found that the use of the collection was rather limited to what was requested in the study scripts. As previously stated, in this school students study through pre-written scripts given by the teachers. In these scripts, it was already indicated the text book or the material that should be read to

answer the questions. It was noticeable that the students did not go beyond what was indicated. As for the literary collection, the students seldom used it.

Based on the observations, the students were selected for the ethnographic perspective interview. Thus, the interview had the proposal of being almost a conversation, so that the subjects felt the willingness to expose their opinions. In that way, even if the script was reasonably long, the interview was light and allowed the participants to talk freely and express themselves.

INTERVIEW RESULTS

As mentioned before, the present paper proposes to think the question of the walls in the library, trying to answer the following question: for this new generation, would breaking the physical barriers of the school library be the solution? Thus, the data collected in the interviews will be analyzed from this perspective: the relation of the students with the physical space of the library.

Through observation it was possible to affirm that the library is a space that many students use not only to take a book, either literature or textbook, but also where they can spend free time. In school A, at break, the place was very crowded. By option of the library staff, at each break time (at school there were two) only 15 students could stay at the same time inside the library. Access cards were issued and these were well disputed. At school B, the library was sparsely attended and the students did not know the place or the possibility of using it. At school C, since the library and the classroom were merged in the knowledge halls, where the classes took place, library was not perceived as a specific space. The conclusion that the school library can be a space not only for reading, but also for coexistence, socialization, coming from the observations, was reinforced by the interviews.

Students highlight the library as a place of socialization, as an alternative space to the classroom. When these students are asked about their ideal library, the description of a dedicated space is unanimous. Among the students attending school C, where the library was willing to break the walls of the library, one emphasized that its ideal library would have walls: (...) *I think it [the ideal library] had to have a cozy climate, so, wall ... is ... few windows like that with glasses, just to take a breath ...*

Students idealize the library as a separate space from the classroom, a place where they can attend and use the services.

In the students' speeches, it is also possible to perceive that the librarian has an important role for the good use of school library. All of the interviewees highlight the need for a person to make the mediation between the collection and them. (...) *for instance, if I'm looking for such a thing, then the person follows the whole process to find the book (...)*.

Thus, data indicate that students appreciate the library space and value the work of professionals who help them in the search for the information they seek.

CONCLUSION

The paper proposed to analyze how the physical rupture of the library walls would be positive for the students' attendance by digital natives. After analyzing the data, it was noticeable that these students actually have a different relationship with the information, but the existence of a structured library space is important to them.

Possibly, breaking the barriers of the library is something that must be done not physically, but by the professional acting there. In library C, in which the fixed breakage of the walls and the approximation of the users to the collection were observed, it was also observed that the librarian's function was very restricted. She did not have the opportunity to play the role of information mediator, which could encourage a much valuable use of the collection for the school's new pedagogical proposal. It is concluded, therefore, that it is up to the librarian to establish a relationship with the students and, consequently, to assist them in the use of the school library. Many of the students indicate that they like to have their own books, at home, but they enjoy the library space. They appreciate the library environment and the possibility of using it.

In this way, the research indicates the librarian's need to improve her / his performance in order to connect with the students and connect them to the school library.

The limitation of the research is obviously related to the number of cases studied (3), which allowed us to explore reality, but was insufficient for any generalization. Proposed future studies may, for example, compare the reality of public school libraries with private education in a municipality, map quantitatively the views of students on school libraries by municipality, among others.

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Promises, Promises? Or Restoration and Renaissance? Fifteen Brutal Years for School Libraries in British Columbia

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ABSTRACT

British Columbia teachers, through the offices of the BC Teachers' Federation (BCTF) and often through their own time on the picket lines, have fought for fifteen years to get back the negotiated language that contractually defined the working conditions of teachers, including specialist or non-enrolling teachers such as teacher-librarians. This paper documents the struggles that took the case all the way to the Supreme Court of Canada where, in November of 2016, in just minutes, the teachers' rights were affirmed and the BC Liberal government's actions in stripping the negotiated contract language were determined to be illegal. Staffing lost was to be restored. For teacher-librarians, easily the hardest hit teacher group, the decision seemed to offer a breath-taking relief after years of progressively deeper cuts. At the time of writing, believing in the imminent full restoration of staffing to re-define the work of teacher-librarians and in a glorious re-birth of the place of the school library in public education in BC appears to be unrealistic.

Keywords: British Columbia, BCTF, Teacher-Librarians, Supreme Court of Canada, Restoration, Staffing, Ratios, Non-Enrolling

INTRODUCTION

The story you are about to be told has all the twists and turns of a docudrama. It begins with a powerful government and the handiwork of an individual in the Cabinet ranks, one who would rise to the top to further complicate events. It features antagonists who specialized in lies told, spare-no-expense courtroom proceedings won and lost, and scurrilous and underhanded trickery; they were facing off against protagonists whose dogged determination and weeks of walking to seek what is right for public education in British Columbia eventually brought them into the light.

Amongst those who walked for the rights of all, there was a small group, more likely to be women than men, who marched because there was something very wrong with larger class sizes and the ways classrooms were composed that exacerbated the workload of their teacher colleagues. Their own place in schools and in relation to learners had been summarily stripped from the contract too, though one was less likely to hear the case for their return, there being fewer of them; there was supposed to be 1 of them for every 702 students, or a pro-rating of this. During the ensuing fifteen years, 37% were "disappeared." One might have been tempted to establish a stand on the street outside one's school and read aloud from that Martin Niemöller poem, "First they came for the Socialists ..."

As the years rolled on, this small group—the province's teacher-librarians, part of a larger subgroup called non-enrolling or learning specialist teachers, similarly stripped of their ratios—was simply smaller and the job they did had been largely transformed, reduced, deemed expendable. On the day the light came on again in November 2016, they were joyful and optimistic that the positions lost would be restored and the work they so passionately provided re-valued. In the school districts where their positions had been eliminated or more heavily cut than others, there was to be a rush to find qualified (or qualifying) replacements to restore the lost ones. But this was not to be the case everywhere.

BC'S POLITICAL CONTEXT FOR TEACHING

Former President of the British Columbia Teachers' Federation (BCTF) Susan Lambert, who had previously been a school-based teacher-librarian, begins her submission to *BC Studies: The British Columbian Quarterly* (March 2017) with direct reference to American politics:

Watching the institutions of democracy crumble in the United States has sparked reflection and introspection in Canadians. The story of the British Columbia Teachers' Federation's (BCTF) struggle against BC's provincial Liberals is situated in this global context. Public education, collective bargaining and unions, the law and judicial system, and government and politics are four institutions of democracy that play pivotal roles in this story. (p. 2)

A recent article in *The New York Times* (Dan Levin, Jan 13, 2017) officially launched the notion of the province of British Columbia as “the wild west.” In its own mind, British Columbia is Canada's equivalent to California; it is often referred to as “Hollywood North” and we refer to ourselves in self-deprecating terms as “Lotus Land.” This has everything to do with lifestyle, film-making, climate, and—yes—left-leaning or “small l” liberal politics:

Critics of the premier and her governing party, the conservative British Columbia Liberal Party, say the provincial government has been transformed into a lucrative business, dominated by special interests that trade donations for political favors, undermining Canada's reputation for functional, consensus-driven democracy. (n.p.)

Events of scandalous proportion have roiled the surface waters, particularly since the transformation of the present Premier from her political start as the province's Education Minister, but nothing has really boiled over and stuck. This most recent designation of “wild west” alludes to party finances, including political contributions, an “unabashedly cozy relationship between private interests and government officials in the province.” In this case, the province's Attorney General reassured the public that the province's standards “should give the public confidence in the electoral system.” In the recent May 2017 election, that same Attorney General lost her seat and the Premier has tried to spin the lukewarm “victory” (the barest of supposed minority government status) for her party into a claim that the outcome is evidence that the voters want her Liberals to cooperate with other political parties. Here in Lotus Land, it means the unthinkable reality that most voters did not want her government and she would need to work in tandem with the three-seated Green Party, which has decided against such a partnership. Flashback 15 years. The same main character is seen in her role as Education Minister to the newly elected BC Liberal majority government overseeing the first of many drastic measures to curb education spending. In 2001, there had been a landslide “Liberal” victory and the major opposing party only retained two seats. Immediately, this government announced generous personal and corporate tax cuts, as well as intentions to cut government spending. The effects of this last promise have been felt and bitterly fought over the last 15 years. Social spending—health care, welfare, support for people with disabilities, housing, children living in poverty or in care, education—was sacrificed and this continued as chronic underfunding in all of these portfolios.

Despite promises they would not, the BC Liberals tore up negotiated provisions—collective agreement language bargained to provide better working and learning conditions—in the health care and teachers' contracts in an act of what Madam Justice Susan Griffin called “legislative interference” in the 2011 BC Supreme Court decision (*BCTF v BC*, 2011, in Lambert), what Lambert calls “legislative vandalism [that] devastated teachers” (p.3), and what Vaughn Palmer, a reporter for *The Vancouver Sun*, called a “legislative double cross that reverberates to the current day” (November 2016, in Lambert, p.3). By the fall of 2016, forty thousand teachers could say they had fought hard and worked together, alongside their Federation leadership. They had patiently awaited the end of a prolonged legal and political process, including walking the picket lines for “class size, class composition, and ratios for non-enrolling teachers.” A world-class education system was fighting to retain its teachers' rights to have a say about their own working conditions and the learning conditions of students against “a deliberate and concerted attack on a fundamental pillar of democracy [during which the Premier] deliberately set out to

mine public education budgets and support competition from elite and religious private schools” (Lambert, p.8).

THE DAY “EVERYTHING CHANGED”

Patience paid off in November 2016, when the Supreme Court of Canada heard two hours of the case for and against the BCTF challenge to the Liberal government’s successful appeal in 2015 of a 2014 BC Supreme Court decision that Bill 22 forcing teachers back to work was in fact unconstitutional.

It took Canada’s top court less than a half an hour to conclude that the BC Court of Appeal got it wrong in a case involving billions of public dollars. After hearing arguments and then a short recess, the Supreme Court of Canada came back and ruled in favour of the BC Teachers’ Federation in an ongoing controversy that dates back to 2002. That’s when the BC Liberal government tore up contracts with teachers and legislated class-size and class-composition rules.

The Supreme Court of Canada decision repudiates a ruling last year by four of five justices on a BC Court of Appeal panel. They concluded that the BC Liberal government did not violate teachers’ constitutional right to freedom of association by legislating class size and class composition a second time.

The only dissenting BC Court of Appeal justice at the time was Ian Donald. He agreed with trial judge Susan Griffin’s ruling that this “unilateral nullification” of working conditions “substantially interfered” with the union’s charter right to freedom of association. It came after the government’s chief negotiator testified that the government’s objective was to try to provoke a full-scale teachers’ strike. (Smith, n.p.)

In just minutes, much to the surprise and delight of BC teachers, the Justices of the Supreme Court of Canada had returned a 7-2 decision to reinstate the BC Supreme Court decision to set the Liberal government and the Teachers’ Federation on the path of restoring the contract language including the provisions about class size, class composition, and ratios for specialist teachers (Zussman, “Timeline” CBC News, Nov 10, 2016). They agreed with Ian Donald’s legal analysis of Justice Griffin’s 2014 decision.

For a while after November 2016, teachers were able to breathe and smile again, hopeful that there would now be a place for them in the process of re-focusing and refunding education. Talk of restoration of staffing—along with a new curriculum in which inquiry figures prominently— held promise of a renaissance for teacher-librarians who foresaw a new place for the school library in the learning equation of BC schools facing a new curriculum with new demands for exactly what they knew how to do. There was and remains a hesitancy; the same government headed by the same Premier who had started it all was not easily trusted to protect public education as a democratic institution; she “immediately and shamelessly, ... with appalling dishonesty ... announced she was pleased by the decision.... ‘If it costs more money, that’s a good thing in lots of ways because it’s a good investment to put money into classrooms and our kids’” (Clark in Lambert, p.8).

Observations are readily drawn from teachers’ lived experience and are supported with additional insights from an article by Alex Hemingway, writing for the Canadian Centre of Policy Alternatives (CCPA), a highly respected “independent, non-partisan research institute concerned with issues of social, economic and environmental justice” (CCPA website). Hemingway’s first major point, made *before* everything changed (November 2016), is, quite simply, that underfunding is a political choice.

It would be unreasonable to think that a public school system for the education of most of the province’s students over 15 years of chronic underfunding would not have experienced the following:

- Increased class size and more complex classroom composition with less support from system staff assistants, non-enrolling teachers, appropriate resources, textbooks, and tools
- Districts invested in the “business” of education, including off-shore schooling and promotion of “Dogwood” certificates, marketing appeals for international students, and

increased expectations for students to shop for and engage in online or distributed learning

- Increased accountability measures, more attention to school rankings, and teaching characterized by curriculum coverage, that is, shallow “covering” of hundreds of bulleted curriculum learning outcomes in the pressure to “teach to the test”
- Diminished morale in the face of acrimonious relations with the government and exacerbated by an inconvenienced public
- Costly legal measures to prolong the fight at the expense of teachers, their Federation, and BC taxpayers
- Ugly strategic interventions by the government in teacher politics and threats to school boards, including evidence of their attempt or intention to deliberately provoke a full-scale teachers’ strike
- School closures, disjointed one-off funding announcements, assignment of impetus for which is often declining enrolment
- Parent-funded playgrounds, hot lunches, technology, fees for field trips, supplies, and transportation; teacher-purchased classroom supplies
- Persistent tensions, reflecting the fear of “Who’s next?” in schools, exacerbated by the spring district budget process which easily produced circus-like annual trustees’ meetings to which parents shepherded their children playing musical instruments to face off against groups in team jerseys, and the like.

THE CASE FOR LIBERAL REINVESTMENT

Hemingway argues we can more than afford to invest in public education. After fifteen years of chronic underfunding, there is now 25% less of the percentage of the province’s Gross Domestic Product being allocated and \$2 billion has been cut from operating grants to schools. Benefits that are more likely to affect the wealthy and elite than others include “ill-advised” tax cuts such as facilities property and child care tax breaks as well as increased funding to private schools at a rate of three times what public schools have seen. This year, private schools will see funding of \$358,000,000. Other public school funding supplements for targeted populations, such as English Language Learners, are included in funding private schools, whether or not they have any ELL or other categories of designated students.

The BC Liberals have stripped capacity from public schools in other ways, as Hemingway has discovered, by downloading costs they essentially control, costs such as: medical premiums, employment insurance, the carbon tax, computer network upgrades, as well as salary and benefit increases for all staff; by withholding funds for capital and maintenance costs, forcing districts to defer facilities upgrades and maintenance; additionally, by implementing a new funding formula that assigns per student funding to districts, thus shifting the locus of blame from the government to school boards. And so on. Hemingway concludes that, in truth, “We can invest substantially more in public education in BC, but we—or rather our government and policymakers—choose not to. As we’re beginning to see more clearly than ever, that choice has real consequences.” The Premier points to recent PISA test results as a measure of the success of education initiatives in BC; she appears not to see the dreadful sacrifices that have been made by educators in the face of years of de-professionalizing and demoralising working conditions to be able to teach students to the standards that are deeply held and the threat to the on-going sustainability of these efforts.

With each province being a separate educational jurisdiction, what is being spent on students in BC’s public education system is readily measurable at \$1000 less per student than the Canadian average. This figure is further exacerbated by the reality that more than 120,000 children in BC live in poverty, a rate higher than the national average; in the words of Seth Klein and Iglia Ivanova, “No matter how you cut it, that’s way too many for a rich province like BC.”

THE UNION CASE FOR TEACHER-LIBRARIANS IN BC

For teacher-librarians, the BCTF (2016) documents 38.7% loss of FTEs province-wide over 15 years, with some districts more brutalized than others. No other teacher sector saw such extensive cuts. The collective agreement stipulates a minimum staffing level of 1 TL for every 702 students, pro-rated; BCTF data indicates a provincial average of 1:647 in 2001, increased to 1:930 by 2015.

Ann Ewbank (2015) undertook a case study of how the BC Teacher-Librarians' Association (BCTLA) Executive and its members work together and with the BC Teachers' Federation (BCTF) to advocate for strong and dynamic school library programs and qualified teacher-librarians in schools. The BCTLA is a provincial specialists' association (PSA) charged with providing professional development for its members, with promoting a positive and professional profile of teacher-librarians, and with helping its members in advocacy for the role.

Ewbank explored how working together and working within the union context ensured BC teacher-librarians were able to withstand the assault, "an uphill battle," and enabled the retention—at the time of the Supreme Court ruling—of over 60% of the teacher-librarian FTE in the province. Heather Daly (2015), BCTLA President, provided input to the Ewbank study prior to further FTE losses: "Given the global economic situation and related financial challenges, school librarians could have been completely eliminated. Without the union and its predominance in education matters, that 70 percent – 30 percent statistic would probably be reversed."

Ewbank's conclusions provide a clear picture of the relationship of the BCTF to its PSAs. The BCTF recognizes the importance of its PSAs as channels for input to union direction and is responsive to their representations, including advocating for minimum ratios of staffing and against eliminating teacher-librarian positions. The Executive of the BCTLA has strong leadership, close relationships, a "megaphone" role and is a centralized research and publication service for those like members of the BCTLA who complement these by engaging in a wide range of field-based advocacy activities. These members are clear and are stronger for their identity: "I am part of BCTLA" and "I AM THE BCTF."

ADVOCACY AND THE LIVED EXPERIENCE OF THE YEARS UPHILL

While advocacy is understood to be a key element of the work of a teacher-librarian, there is recognition that an uphill battle is exhausting. Ewbank's (2015) search of the relevant literature showed that teacher-librarians are very aware of the need for advocacy. In a survey she had previously conducted, more than half of the teacher-librarians surveyed indicated they were accustomed to threats of loss of their position or funding; while they knew advocacy was important, they were too busy.

There is no question that teacher morale in British Columbia had sunk to a new low. The intensification and de-professionalizing effects of the language strips and picket lines fragmented teaching staffs, creating on-going pressures for administrators to navigate competing and conflicting interests and for school districts to cut more and more classroom teaching and non-enrolling teacher positions each year to meet annual budget deficits; to add insult to injury, the government had been downloading costs to districts; in some districts, whole contingents of teacher-librarians disappeared or were cut incrementally and/or increasingly transformed to teachers enabling colleagues to have "prep blocks."

It is in circumstances like these that a professional association needs to become political, to "build influence" within the political structures of the teachers' organization, and to come together at the executive level to advocate for its members by addressing head-on the challenges of the ways in which their important place in the education equation is being eroded, even eliminated.

That, suggests one BC Teachers' Federation staff member, in response Ewbank's (2013) question about its role in relation to the PSAs, is the primary role of the Federation. "We encourage that and we expect them to come ... to us with advice ... [and] they expect us to support that through communications, through meetings between the table officers here and the Minister [of Education]" (p.3).

BCTLA Executive members, when interviewed, clarified the relationship:

The BCTF is supportive of the PSA as long as we are here and as long as we make representations and ask for things that they have to respond to, because that's part of the mandate.

Because often the greater teachers' union has no understanding of what teacher-librarians do, we're that voice. And we're out there to give the teacher-librarian a sense of belonging and ... of knowing that they fit into something. (p.3)

A BCTF officer responded:

We don't just talk about the loss of classroom teachers and the need for smaller classes. We're also talking about the roles of learning specialist teachers which includes teacher-librarians The [lobbying of the BCTLA] usually ends up being successful.

Every child, every school should have a school library that should be staffed by a qualified teacher-librarian It's not just a technical job of putting books on shelves. It's a position that needs to be a teacher working collaboratively with classroom teachers and other teachers in the school to do literacy and all [its] wide-ranging forms. And that's something that we've been fighting to preserve all this time. (p.4)

In addition to the strengthening of the political role and the two-way communications between the BCTLA and BCTF Executives, BCTLA members interviewed commended the PSA Executive for its constant conversation on their behalf, including for:

[Their] consistent, considerable, persistent, tactful, and again tactful, interaction with not just with the BCTF but with government officials.

People ... like Moira and ... Heather are very active in the BCTF and make sure that that liaison is very strong.

[They] have done a tremendous job in terms of leadership, not just within the BCTF, although that's absolutely essential to us, but also generally in terms of our reputation as professionals. (p.4)

Yet, during the fifteen years of siege on their work, there remained a passion and a strong sense of their key role in learning.

We're always organized. We know what we want. We have goals in mind. We're very big picture. ... I think we all do that as teacher-librarians.

Teacher-librarians remained very clear about their responsibilities in schools and about how to make the role work; in the words of one respondent to Ewbank's question about the advocacy role of the teacher-librarian, there is no room for a "mole librarian":

That's what we all have to do. We have to advocate for our positions within our school communities. You have to know the parents. You have to talk to the parents. You have to constantly have dialogue with them. You have to know the kids. You have to say hello to them when they come in the hallways when they come in the school in the morning, when you talk to them in the hallways. You relate to them all the time. You can't close the door in the library and be a mole librarian. You've got to be social. (p.7)

In addition to escalated advocacy, other factors that correlate positively with the retention of teacher-librarians' positions include stakeholders' perception of the value of the school library program. Interestingly, Ewbank (2015) in her Case Study notes that:

[Researchers] Nancy Everhart and Marcia M. Mardis (2014) conducted an evaluation of a project designed to bolster stakeholders' understanding of school libraries and the profession. [They] had found that reaching out to stakeholders in an organized and thoughtful fashion while not in a crisis mode allowed stakeholders to reflect on the value of school library programs and built support for both school librarians and school library programs. (p.4)

Many teacher-librarians in BC cannot remember times that they weren't in "crisis mode." They work in two school libraries or opt for part-time or take a split load of some library and some resource support or working with English Language Learners; their flexibly scheduled portion may have been consumed by teacher prep coverage; or they have returned to the classroom. It is rare to find a full-time

elementary teacher-librarian, strangely enough and despite the increased demands for collaborative inquiry pedagogy, for maker spaces, for teaching design skills or coding, and for support for technology and other literacies, all of which are explicitly articulated and embedded in BC's new curricular directions.

In his recent article for *Canadian School Libraries* (canadianschoollibraries.ca), Canada's new online school libraries publication, Richard Beaudry describes three of the issues faced by those who chose to continue as practicing TLs:

The [BCTLA] survey of 2008 refers to the difficulties of part-time work as a teacher-librarian in BC schools: "Many respondents talked about how difficult it was for them to try to meet all of the responsibilities of a teacher-librarian on a part-time FTE appointment." ... When the mandatory ratios were stripped from the contract, many school districts replaced teacher-librarians with library technicians to save on their budgets or simply cut library time to balance their school budgets.

A second important issue was school library funding. BC has the second lowest per student funding in Canada. The direct result of this is that school libraries in some districts received little or no budgeted funds. By 2011, nearly ten years after the stripping of the collective agreement, the [BCTLA's] working and learning conditions survey of public school libraries ... indicated that fundraising was a necessity to library programs to be able to add new books to increasingly out-dated collections.

A third issue was the changing role of teacher-librarians after the ratios were stripped and budget cuts occurred. To keep their posts, many teacher-librarians, especially in elementary schools, were asked to provide prep-time coverage for other teachers in the school. This moved teacher-librarians out of the role of teaching students research and literacy skills. Their role was downgraded to simply signing out books and possibly reading a book to students if time permitted. Their role was diminished to a point that it made sense to administrators to replace or eliminate teacher-librarian positions from the school library.
(p.4)

For a short period of time, a fourth issue arose with the development of school library learning commons. The learning commons model was essentially co-opted and reduced to superficial refurbishment by some of the decision-makers as a way of saving scarce district dollars. One district presented a budget proposal to cut teacher-librarians as it was opting to "go with the learning commons model." If a space was lightly overhauled and a collection footprint reduced, teachers could be assigned to some of the role of opening the room up and supervising it; this would provide some timetable flexibility for teachers who were not teacher-librarians and eliminate costs of resources and specialist staffing. BCTLA Executive members joked darkly about how a new rug and a faux-leather couch was an ill-conceived attempt to glitz-up the old Study Hall concept. As more of the actual library learning commons have been developed and as the BCTLA and others have published more about school library learning commons, this co-opting seems to have stopped.

There are also hints of another issue; there is certainly a place for a deeper gender analysis of what was happening in schools. Often, for example, the idea of a Learning Commons was attached to the career trajectory of a technology teacher who, after all, could show students how to use tools and apps and how to Google and Google deeper. Speaking anecdotally, the answer to systemic reform, one suggested, was clearly "Apple" – and likely since then, let's add "Google." Print collections were, in the minds of some, a thing of the past. There seemed no shortage of bright young men armed with their tools ready to step into such a "learning commons" role that would be replacing the teacher-librarian, more than likely a woman whose work was defined as reading promotion and collaboration for research to develop skills for inquiry and critical thinking, as well as media and information literacies.

THE CASE FOR SCHOOL LIBRARIES AND RE-INVIGORATION OF THE ROLE OF THE *TEACHER-LIBRARIAN*

In a system more likely to find a teacher-librarian in an elementary school library providing prep coverage than teaching for inquiry and inspiring the love of reading deeply, it is essential to be clear about the missing possibilities. Susan Meyer, blogger for TechNotes, recently used her April post to thank school libraries and teacher-librarians:

*Libraries and the innovative and imaginative librarians who run them are an invaluable part of their schools. They introduce students to a world of wisdom. They enable students to access and understand an incredible wealth of digital and traditional resources. Ultimately, they empower students to become shrewd researchers and knowledge-driven digital citizens. We all know that libraries develop strong readers and writers. But as any librarian will tell you, it's important to back up your statements with sources. A 2013 study by the Pennsylvania School Librarians Association (PSLA) looked into what school libraries contribute to student achievement and the development of 21st century learning skills. What they found wasn't too surprising. **Reading and writing scores are consistently better for students who have a full-time certified librarian at their school over those who don't.** The study also found that these benefits were even greater among minority students, economically disadvantaged students, and students with disabilities. This suggests that libraries might be one key to closing achievement gaps. This data isn't unique to Pennsylvania, of course. In fact, **21 state studies** all confirm that the presence of certified librarians in schools leads to a measurable difference in student achievement. (para.1-3)*

Thank you, Susan Meyer!

No assessment of the state of school libraries, but BC school libraries in particular, is complete without alluding to the work of Ken Haycock. Haycock began his work in BC school libraries as the district administrator of school libraries with the Vancouver School District #39 before moving to the School of Library, Archival, and Information Studies (SLAIS), now the iSchool@UBC. A 2011 study of BC school libraries confirms twenty years of American and Canadian school library research: "An easily accessed, well-funded, well-staffed, well-managed, well-stocked, integrated and heavily used school library correlated to higher student achievement" (p.3).

Haycock considers how BC's Ministry of Education utilizes data generated by provincial assessments when the findings have implications for school libraries. BC's public schools, by world standards, are high performing. Yet, years of assessments have indicated that students' information processing skills are deficient.

*Throughout these assessments and interpretations, no mention was made of any role for the TL or school library. Research in education and teacher-librarianship suggests that rich resources and appropriate inquiry-based learning are made relevant and cost effective when a teacher-librarian supports classroom learning outcomes through collaborative teaching. Although the library's role traditionally has been centered on information and media literacy, support for research-based projects, development of critical thinking skills and instruction on information access, there has been no mention by the Ministry of connecting the government's curriculum recommendations to library programming. Ironically, the British Columbia Ministry of Education's own policy document *Developing Independent Learning: The Role of the School Library Resource Centre (1991)* advocated for these roles and initiatives but has been allowed to go out of print.*

In BC, as elsewhere, it would seem that roles and responsibilities traditionally undertaken collaboratively by the teacher-librarian have been relegated to classroom teachers alone through design or neglect. As the recommendations remain the same year after year, it is not a stretch to conclude that classroom teachers are not receiving the training and support they need to carry out mandated initiatives, if indeed they are able to do so on their own. The research suggests that the decline in media and information literacies and reading skills can best be addressed through a collaborative effort between teachers and qualified teacher-librarians, as this study demonstrates. (p.5)

For Dianne Oberg (2017), in writing about the broader Canadian picture of provincial educational jurisdictions and their ignoring large-scale assessment data that could open the doors of more of the country's school libraries, the picture is the same:

When provincial, national, or international learning assessments are analyzed, the areas of concern that emerge are frequently library-related, particularly in the realm of information literacy practices: formulating questions, identifying appropriate sources of information, locating information, distinguishing between relevant and irrelevant information. While in parts of Canada we are cutting back on school libraries, in parts of Europe they are being supported as a force for educational reform. (p.1)

In short, despite evidence that investment in school library programs is a sound educational practice that benefits students' academic and social development in many ways, where the evidence suggests that the BC Ministry of Education and other policy-makers across Canada should provide support for the key role of the school library through funding, clear inscription in curriculum, legislation, and contractual agreements, inclusion of teacher-librarians and school libraries in curriculum, curriculum development, and resource selection, as well as development of clear policies and mandates for hiring qualified (or qualifying) teacher-librarians and funding school libraries in school districts, to date they have not. Marlene Asselin and Ray Doiron (2008) assess how the foundations of education have been dramatically transformed by rapid change in communication and information technologies. They propose a new and transformative pedagogy for the "new" learners, enabling them to participate successfully in their various social, economic, and cultural communities around the world and beyond K-12 schooling; such schooling requires firm foundations both in traditional literacy and in the empowering capacity of being able to use effectively the skills and practices of a number of multi-modal literacies, skills like:

- Technology literacy, including acquiring skills in searching; using soft- and hardware, as well as social media; "reading the landscape" of the Internet; using skills for word and writing processes, social media communications, and format and application integration with writing and publishing.
- Inquiry and problem-solving, including recognizing the need for more information; asking good questions; creating new knowledge from information they have accessed and selected; understanding the structures and schemata of information; synthesizing, creating, and sharing information as new knowledge.
- Critical literacy, including learning how to assess information for power relationships, authenticity, capacity to influence; matching tools to their learning needs; understanding their roles in both global and social contexts; and functioning effectively in a democratic society.
- Ethics and social responsibility, including using information and producing new knowledge ethically; valuing fair, open, respectful, legal, and equitable access to information and socially constructed knowledge; and understanding issues of privacy, copyright, and intellectual property.
- Creativity and representation, including honing skills of the multi-literacies and technologies, new and emerging, for constructing, sharing, and representing new knowledge; incorporating creativity and balance in presentation, design, and communications. (pp. 8-9)

Allan Luke, a participant in the New London Group from which emerged *The Pedagogy of Multiliteracies* (1995), addressed academics in a 2015 Disruptive Discourse Lecture at the invitation of the UBC Faculty of Education; he discussed the failure of this pedagogy – it has a finite life, the gaps are exposed, the discourse fragmented, and the rifts are not going to be closed. "We need to create a generative model," Luke suggests. From notes:

Slow down, I thought. Just slow down. The work we do, as described in the event blurb, to focus on "creative and critical engagement with new technologies as means for expression and representation with a strong focus on student 'voice,' identity and place of students and communities who have been historically marginalized in print-based, industrial-era education" has been overtaken by a new and more ominous reality, one that has invoked "moral panic" – how and what do we teach that will prepare our students for the world laid

bare by one ordinary man named Edward Snowden? No discussions of the New London group could have predicted “Hacktivism, cyber-bullying, Wikileaks, Gamergate, Google vs the Great Firewall of China, the Internet of Things, and a host of other new social, economic and cultural phenomena,” a world where the traditional “patching in” of add-on lessons about cyberbullying, for example, is simply not enough.

Did I hear that right? “Education isn’t what it used to be – except in high school.” Although these words are not his, Luke placed ultimate and significant value on the public school system but I didn’t get the sense that he understood how particularly besieged we are here in BC and how those with the mandate to “reform” our schools are stripping them instead of building in the capacity to explore, assess, redesign, and implement meaningful reform from the ground up; teachers live in fear of the neo-liberal education agenda ... but I wasn’t sure we in schools would be able to look to academe for support in driving change or even doing battle with the academics for a place and a voice at the reform table. The work of schools has been intensified, the workers demeaned and de-professionalized, the time for thoughtful consideration of reform and direction deliberately eroded. (Ekdahl, 2015 June 5)

His talk, well before recent political developments, was entitled “Education After Snowden: Teaching and Learning About the New Information Order.” The urgency for reconsideration of the place of school libraries in the learning equation in BC schools has taken on new and dramatically enhanced proportions since Luke began the list of issues for which most young BC students are not adequately prepared. In the “host of other new social, economic and cultural phenomena” that our students face, he could make no mention of “fake news,” grand-scale international political interference, Big Data, the dark net and the deep net, jihadist and other vile lurings, and the shocking global rise and/or resurgence of right-wing or ultra-conservative politics. While BC students are more likely to be on the winning side of the issues around marginalization that Luke so eloquently identified, they are poorly equipped for this world in a “moral panic.” Can we continue to face up to our responsibility to these students by offering the add-on lessons on cyberbullying?

THE PROMISE AND PROCESSES OF RESTORATION AND RENAISSANCE: A TIME FOR HOPE IN SCHOOL LIBRARIES?

Lambert finishes the tale of a very specific and political teachers’ fifteen-year struggle to retain basic rights in a democratic society by shifting from home base back to the new global reality in which we teachers are “teaching after Snowden”:

Because of the commitment of teachers, their tenacity, and willingness to pool resources and pursue this case to Canada’s Supreme Court, in the Coquitlam school district where I live, 100+ new teachers are supporting students right now, with more to be hired this fall. It’s a start.

And crumbling institutions of democracy in a Trump era? Three critical institutions – our judicial system, our union rights, and public education – are strong and getting stronger. Our next task is to hold individuals and politicians to account, and strengthen our electoral political system.

Clearly the arc bends increasingly toward workplace Justice. (Madame Justice Rosa Abella, Saskatchewan Federation of Labour v Saskatchewan, 2015, para 1, as cited in Lambert, p.8).

Lambert had begun to capture the effects of significant change in BC’s public education system. For teacher-librarians, even as their role and teaching efficacy had been eviscerated by the ill-conceived and now-illegal cuts, even as the place of the school library in relation to classroom learning felt as though it had been assigned “second-class” status, the need for the teaching of skills for media and information literacies, critical thinking, and information source evaluation and other aspects of what might be considered the school library program “curriculum” has escalated. Suddenly and remarkably, our youngest teachers are, for the first time in BC’s teaching memory, the same ones who were teacher candidates last year, now working alongside those who were five years into what had become a seven-

year trek as a “teacher-teaching-on-call” (TTOC) to a continuing position and with retirees happily returning to work as TTOCs; in some districts and in some particular areas, restoration of staffing would be making a real difference and it couldn’t be more apparent.

For teacher-librarians, the collective agreement clause pertaining to non-enrolling staffing ratios specified one teacher-librarian for every 702 students, a number that was bargained for and became effective in 1999 in a special closed-door decision made by then Premier Glen Clark of the New Democratic Party and BCTF President Kit Krieger. The “Restored Language” includes:

9.F.3 Non-enrolling staffing ratios

(a) Employee staffing ratios in each category shall not decrease below the number reported in the 1997/98 Ministry form 1530 for this District, as follows:

- (i) Teacher-Librarians: 1:927.3*
- (ii) Teacher-Counsellors: 1:535*
- (iii) Learning Assistance Teachers: 1:801*
- (iv) Special Education Resource Teachers: 1:232*
- (v) Support for ESL Students: 1:64.7*

(b) Teacher-Librarians

- (i) Effective 1998 July 01, teacher-librarians shall be provided on a minimum pro-rated basis of teacher-librarians to students in the ratio of 1:921.*
- (ii) Effective 1999 July 01, teacher-librarians shall be provided on a minimum pro-rated basis of at least one teacher-librarian to seven hundred two (702) students. (VTF)*

Showing change over time, the “new” ratio in the provincial and local matters collective agreement had been reduced by 225 students.

CONCLUSION

The dust hasn’t settled yet. At the time of writing, school timetables are being set and postings, prepared. Much of what has been “collected” in the way of information that follows is anecdotal and has been gathered by email and other personal communications.

Perhaps the first indicator of a dramatic sea-change in the field of school libraries following from the November 2016 Supreme Court of Canada’s finding for the BCTF was the sudden increase in applications to enrol in the teacher-librarian diploma program at the University of British Columbia and the sudden awareness of an immediate need for instructors for the program’s newly-re-designed courses. There had been few if any warnings of a tsunami!

In personal email communications, Dr. Marlene Asselin explains how UBC is responding to the increased demand.

The UBC Teacher Librarian (LIBE) program has approximately 100 new admitted students to the summer and fall 2017 courses. We recognize in these above average numbers a need to provide the full array of the 10 course LIBE diploma program. We are still discussing how to proceed, as we need to support these students through their studies, provide full sections of courses and give them the best service and learning experience. For example, cohort models (online and on site) enable us to structure students’ diploma (certificate), can eliminate the rush to register in everything, and enable the spread of demand across several courses/sections. UBC sees this increased demand for trained teacher-librarians as an opportunity to demonstrate their commitment to quality public education in British Columbia. (2017.05.27)

In some school districts, nearly all the teacher-librarian positions had been eliminated over the fifteen years. More than one district has reported needing to find 45 TLs! For such districts, one solution, derived in consultation with the UBC Faculty of Education’s Language & Literacy Department and various district management personnel, focuses on the recruiting of good, well-experienced classroom

teachers. UBC offered to implement the “cohort” approach to training them in partnerships with several districts and, happily for the teachers, the proposals have been accepted.

Other districts have not identified a need for more teacher-librarian staffing as their priority; in fact, in these districts, the staffing situation for teacher-librarians is quite the opposite. The ratio, intended as a minimum guideline, represents conditions which, usually averaged in consultation with the districts’ teacher-librarians in the past, was never fully realized across the district. In other words, while 1:702 represents a situation that needs to be “restored” to better conditions due to the elimination of, in one of these districts, more than 15 FTEs of TL time, some districts claim they had retained enough teacher-librarian FTEs to comply with the contract guidelines and would be restoring nothing. Others are “rationalizing” cuts to non-enrolling staffing rather than restoring what was taken as they presently have a district-averaged ratio less than 1:702. In one district, despite practices of school-based staffing decisions, administrators are being warned to comply with an order not to vary the staffing of school libraries.

Another persistent issue emerges from the shifted and diminished role is the length of time; fifteen years is a long time in which teacher-librarians’ capacity to deliver strong and dynamic programs has been increasingly eroded. One respondent to a recent informal survey of practitioner-instructors in the UBC Teacher-Librarian diploma program describes the problem:

Administrators and staff [need to be educated about] what teacher-librarians can do. Especially administrators Most of the principals who were in schools before the ratios were cut are retired and the rest [are] close to retirement. Many principals, especially in the elementary schools, see the teacher-librarian role as primarily one of offering prep time and book exchanges since this is how they dealt with the school libraries after the ratios were cut. School libraries have been changing. [Teacher-librarians] see their own role as being very different than it was sixteen years ago.

Teacher-librarians will need to move quickly to present to administrators and staff the kind of work that they can do in the schools. In this district, the teacher-librarians are preparing a presentation to the Board in the new school year to offer an overview of the different tools at their disposal, the different work spaces that are offered, and the ways they work with teachers and students to implement the new curriculum. (Email, 2017.05014)

In addition, the respondent continues, many of the “seasoned” teacher-librarians who do remember the times before cuts to ratios are also preparing to retire, taking with them the wealth of knowledge that has sustained and inspired remarkable programs and gains in the field. There is a real need for systems of mentoring to be put in place as the new ones complete their programs.

Local union officers do offer support for their teacher-librarian members while consoling them, where necessary, to the immediate realities of the various interpretations of what 1:702 will look like in their districts. Vancouver Secondary Teachers’ Association President and recently elected Member-at-Large to the BCTF Executive Rory Brown, by personal email, distinguishes between the need to comply with contract language and the desire to provide better service delivery to students; he offers assurances of support to Vancouver (and provincial) teacher-librarians:

The union will continue unrelentingly to enforce the terms of the contract including the district ratios. On a separate but related note, the union will also lobby and advocate for increases in education funding that would allow increases to TL staffing in excess of the district ratio so that children have access to an open, well-funded library in each school. This is important; vital, even. (2017.05.27)

Well, that ends the “season” of this eventful docudrama. Hope for some that there could be real restoration and a renaissance for school libraries in BC in the next school year has dwindled. There is a sense of futility that remains in the air; the sense of victory, gone for many. Stay tuned for more details in Los Angeles, and hopefully more dramatic and significant unfolding of the plotlines in the fall.

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Efforts and Changes Around School Libraries in Sweden Today

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ABSTRACT

As the 2017 IASL conference theme will be “Learning without borders” it is interesting to focus on how the school library, as well as the school librarian, will have to adopt the field – to establish and develop the field as a whole. By describing the whole field, with a perspective taken from the Swedish school library, from the present situation 2016/2017 and even further than that, there will be a contribution of useful material and methods – inspirational to the work and progress for school libraries/school librarians. Three specific subjects will be presented during the lecture - mainly to create a sustainable knowledge on school libraries as a learning tool in school - with a special focus on the political and structural efforts/changes taking place in Sweden today. The three specific subjects are: the Swedish National Agency for Education, The national school library group of Sweden (NSG), School Library West (SBV).

Keywords: Sweden, School Library, School Development, Information Literacy, National Agency of Education

INTRODUCTION

Sweden (9.9 million people) has 290 municipalities, 290 public library systems, and about 4 000 school libraries. Public libraries and school libraries are financed by local authorities. The municipal council makes decisions in matters concerning libraries, compulsory school, upper secondary school and preschool. Sweden has a long tradition of local municipal autonomy. Local authorities are independent bodies, which are free to make their own decisions within certain limits. Compulsory schooling in Sweden is from first to ninth grade. A preschool year from six years of age is a part of Swedish schools, but not compulsory for children.

“When local authorities are given new tasks, their right to municipal autonomy must be taken into account. This sort of situation may arise when an area in which local authorities have previously provided services on a voluntary basis, such as libraries, is brought under regulation”, the government says. This is why legislation often is not detailed. School directors and principals are the ones who have mandate from the local authorities to decide how the money is spent and how the schools are going to follow the law. The Swedish schools, principals and municipalities must now manage school libraries.

The National Library of Sweden (KB) has the responsibility to coordinate support for all libraries. Within the public library sector, there are 20 county and regional libraries with the assignment to encourage cooperation and development through projects such as reading promotion, development of library service for different target groups, and lifelong learning. According to the Library Act, regional libraries do not have mandate to provide for school libraries, but they can cooperate with school libraries in their regions.

THE SWEDISH NATIONAL AGENCY FOR EDUCATION

A Summary and a Definition of the School Library

The Swedish National Agency for Education has a valuable department working with school library issues. The Agency has a reference group for school library matters. An Agency officer manages a discussion list for school librarians, provides informative journalistic web articles on school library best

practice, and a website called *Check the source* about information literacy, critical awareness, use of social media and web tools for daily school work. In the guidelines from the *National Schools Inspectorate*, a definition of school library from the Agency is quoted:

A shared and well-regulated resource comprised of media and information, which is put at the disposal of the pupils and teachers with the help of competent staff. The school library is a part of the school's teaching activities with the task of supporting the pupils' learning. The school library can therefore be regarded partly as a material resource which is part of a school's teaching aids and other tools, and partly as a function which actively contributes to the development of knowledge and is responsible for certain services (Translated in Jensinger, 2013).

Background

The Swedish National Agency for Education is one of the three big national authorities for schools, belonging to the Ministry of Education and Research. The other two governmental authorities are The Schools Inspectorate and The National Agency for Special Needs Education and Schools.

The Swedish Education System 1

In Sweden there are almost 11 000 schools (pre schools included). 1.5 million pupils (21% of the population). There are about 4 000 school libraries connected to compulsory and upper secondary schools (6078 school). According to statistics from 2010 67% of the Swedish schools units have a school library. One third of the Swedish pupils have no access to a school library. Statistics 2016 shows similar figures as mentioned above.

The Swedish Education System 2

The Swedish school system is decentralized since 1991, which means that the municipalities/ local schools authorities are responsible for and finance the schools, even the independent schools. Independent schools include 9% of the pupils in compulsory and 17% in upper secondary school. The national goals for Swedish schools are set by Swedish Parliament and Government in The Education Act, Curricula, Course Syllabi and Program Goals. All these documents (apart from the Education Act) are being renewed and revised during 2017. To put some weight behind the words here, the Swedish minister of schools Jan Björklund quoted: The Swedish School System is "undergoing the biggest school reform since 1842."

The New Education Act

A proposition about a new Education Act was left for political decision in 2010. It was approved, and was set to start in autumn 2011. One important reform within the Education Act is that Swedish pupils are guaranteed access to school libraries. This does not mean that every rural school with 50 pupils have to employ a librarian, but as school authority you have to include school library – the pupils need for information and reading possibilities in your plan for school activities. Being part of the Education Act also means that the school libraries are included in the inspection of schools (made every third year by The Schools Inspectorate), something that has not been reality earlier.

The National Agency And School Libraries

The goal for the Agency is to steer and support schools through different steering documents. The Agency was head of big national school library projects during the years 2000-2004 as well as 2007, including competence development for school librarians. The Agency also publishes research about school library and information literacy, as well as school library articles on the Agency's website. There is also a discussion list for school librarians with around 1000 subscribers, as well as wikis for teachers and librarians. The reference group for school libraries at the Agency started in 2009. There were discussions about strategic issues and even printed/digital materials were produced through the group. Later on the group focused on a referral for the new Education Act, as well as the definition on school library (*referred earlier in the text*).

News from the Swedish National Agency for Education

- With a start in autumn 2016 principals have the possibility to search for contribution, when it comes to reinforce staff at the school library. The Agency administrates the governmental funding for school librarians. 1, 6 million dollar 2016. 3, 2 million dollar 2017. An evaluation will take place 2017.

- All Swedish curricula are being revised during 2017 with the aim to strengthen the writings about digital competence. The schools can decide to start working with the revised versions from July 1, 2017
- School library in the revised curricula: It's the principle responsibility that the school library is being used to support teaching, empower the pupils language abilities and their digital competence. This is an important sentence and a tool and argument for staffing the school library with an educated school librarian.
- The Agency also offers training initiative, where school librarians are a special target group. A reading- as well as a media literacy training will be offered for both school librarians and teachers.
- A new reference group of school librarians (40-50 members) is formed. As an effect of that a wide scale of conferences, meetings and projects are organized. Everything is connected to the above skills development.
- The National Agency of Education is since 2016 member of a network consisting of eight national authorities, three of them school authorities. The main issue for the group is school libraries. The group supports the work with the national library strategy with some external environment monitoring. For example: In 2016 the network published an overview about Swedish school libraries. There is also a discussion about producing a leaflet addressing school providers.
- There will be a new strategy set for the Swedish Library ready in 2019. The school library will be a main field for the work with the strategy.

THE NATIONAL SCHOOL LIBRARY GROUP OF SWEDEN (NSG)

The National School Library Group vision is a Sweden where staffed school libraries are a natural and integral part of the schools work.

In Sweden one network stands out, maybe unique in its structure, consisting of stakeholders interested in school library development. The network is the brain behind the writings about school libraries included in the new Education Act. The strength of the network is that it is composed, not only by school librarians, but also by representatives from all school areas, such as teachers, school heads, writers and public libraries.

The National School Library Group was founded in the 1990s by authors (writers of books). The authors reacted to municipalities cutting down libraries, often situated in schools. The curriculum left the responsibility of libraries to the head of each school. The authors wrote debate articles in newspapers and supported work for defending libraries. Eventually the NSG group grew and became an expert group fighting for and encouraging the development of school libraries for the benefit of student achievement and interest in reading.

Until 2016 the group has had more than 20 member associations, collaborating to achieve strong outcomes across the school library sector as a whole. Some of them are NGOs, trade unions, regional associations, as well as The Swedish Library Association. Government departments have also been represented as well as The Swedish National Library. NSG acts to alert responsible officers and politicians of the role and mission of the school library in the school's educational work. The target groups for NSG advocacy work may be principals, teacher training institutions, universities, government agencies and other stakeholders.

From 2016 the organisation for NSG has changed, to more of an advocacy group around the key-issues (12 organisations). Now there is also one specific group for the Government departments (8 departments). The reason for this is to get a more effective NSG group, where reality in a closer way meets the field of subject. NSG also urge to be more effective in the working/meeting-process, where less often tend to be more, so to speak.

One important advocacy task for NSG is to select the *Swedish School Library of the Year*. The award consists of a work of art and an author visit for the students. In the year when the school gets the award, the school librarian often gives lectures and receives visits from other schools.

NSG, like many of its members, also publish leaflets, organizes conferences (e.g., yearly at School Fair and Book & Library Fair) and constitutes an important reference group for policy and law. Arranging appointments with politicians and important national officials with connection to education is

another way that NSG works. Over the years, the group members have called on several ministers of education and met with politicians who have shown special interest in culture and libraries. The different associations within NSG eventually understood the school library advocacy problems better and maybe understood each other better. They learnt how to talk to officials, and they had an influence on the school library issue becoming known and discussed in parliament and in the education department of government.

When the new Education Act was passed in 2011, NSG and the Swedish Library Association conducted a massive information campaign to make the regulations known to all principals in Sweden. The campaign content was taken from the criteria developed by *The National Schools Inspectorate* for their coming inspections. The Inspectorate states that the following requirements must be met for students to be considered to have access to school libraries:

1. Students have access to a school library on their own school unit's premises or at a reasonable distance from the school that makes it possible to continuously use the library as a part of students' education in order to contribute to achieving the objectives.
2. The library includes books, non-fiction and fiction, information technology and other media.
3. The library is adapted to the pupils' needs in terms of promoting language development and stimulating reading. (Translated in Jensinger, 2013).

Finally, updated in 2016/2017 - The main goals for The National School Library Group:

- Make sure decision makers pay attention on the importance of well-functioning school libraries for students learning and development.
- Demonstrate school libraries impact on students reading development and media/information literacy.
- Strengthen stakeholders at all levels in their efforts for staffed school libraries.
- Spreading knowledge of good practices, including the price Swedish School Library of the Year.
- Promoting debate about the role of the school library.
- Spreading knowledge of relevant research and current policy documents.

THE SWEDISH LIBRARY ASSOCIATIONS

There are three regional associations of school librarians in Sweden: *East, West and South*, all of them located in each geographical region of the country.

The first regional association *south* started up in 1998. Then a few years later followed the association *east*, and in 2008 the association *west* was born. The main issues for the associations are: promoting school library matters, operating lobbying activities, arrange seminars and activities at national fairs, and pay attention to the working method where librarians and teachers get connected as a working unit in school.

The associations also produce supporting materials for school libraries. For example: Guidelines for school libraries, debate articles and interviews with school librarians and folders.

The price "The School Librarian of the Year" has been a long running award in Sweden, promoted by the Swedish Writers Union. A price given to a school librarian, like The National School Library Groups price (see above), have been working in a quality way. Since 2010 The Swedish Library Association has been the actor behind the price. Today two different prices (in the associations East and West) have replaced the price.

As noticed there are many similarities between the association's issues and The National School Library Group. There are several reasons for that, but one of the more central facts is that the associations from the beginning have been a representative part of the National School Library Group. Therefore much of the both parties thoughts, knowledge and information has been shared in both arenas. This is a strength that leads to success for both parties. Responsiveness and esteem for the field in a whole are the key tools here.

There are also clear differences between the both parties. The Associations are member-based groups. There is a board with several members, as well as a chairman. There is an annual meeting on every year basis, where the board is elected in a democratic way. Each member in the association has the

right to vote. There is also a fee connected to the membership in the association. Compared to the National School Library Group this makes a major difference. This is important to understand, because out of the member's collective force of "free will", the work around school libraries gets connected to real ground - the reality and everyday life in an ordinary school.

SCHOOL LIBRARY WEST (SBV)

School Library West was established in 2008. For many years there was a desire for a network for school librarians in the region. When the decision was made - to start up an association, directly after one important meeting at the Book-fair in Gothenburg (major city in the region west), it was highly welcomed by many.

There were particularly two reasons for the establishment of a new association:

1. To take advantage of the facilities of Gothenburg as the major "city of fairs" in the region, as well as in the country and even abroad.
2. To put effort in the working method, where librarians and teachers get connected and cooperate as a working unit in school.

Louise Limbergs respected research were central. The results showed early on (1990) new tasks for school librarians:

- To teach critical use of information.
- To offer many sources for school work
- To cooperate with teachers to develop teaching towards analysing knowledge content instead of mediating sources.

Several more researchers made huge impact on the boards members. Especially the American researchers Dr Carol Kuhlthau and Dr Ross Todd. Researchers that later made it over to Sweden, invited to talk about their research and professional experiences, which has had such a great impact on the understanding of the complex field: school library teaching.

Out of this came the real start and work for School Library West. Five goals (mind-maps) were seen through the many suggestions that reached the board during this period:

- Acting to bring the school library into the future (Pedagogical & Technical)
- Being a creating venue (Web, meetings, debates)
- Acting in a modern way (Web 2.0, promoting, marketing)
- Acting through crossover (Facing possibilities)
- Defend the regional touch (Create contact surfaces)

Among the amount of activities taking place, there are a few actions, connected to the goals of the association, worth some extra attention:

- Arrangements - conferences, lectures and meetings for school librarians and teachers.
- Operating lobbying activities, as well as meeting members of Sweden's school library associations, mainly at Book-fairs and Teach-meets.
- Managing the yearly "Malin Koldenius scholarship" award.

Arrangements - Conferences, Lectures and Meetings for School Libraries and Teachers

School Library West has from the start valued further training for school libraries and teachers, as an important part of the association's mission. As Gothenburg since a long time is the main centre for Sweden's biggest book- and library fair, School Library West have seen it as the home arena.

In 2010 the IFLA conference was arranged in Gothenburg. School Library West arranged an official Pre-conference around school libraries. The conference entitled "The future for school libraries in a national & international perspective" ended up as an international arrangement with some of the most well known lecturer in the field for that time, such as: Dr. Ross Todd, Rutgers University, New Jersey, USA, Dr. Lesley Farmer, California State University, Long Beach, USA and Luisa Marquardt, University "Roma Tre", Rome, Italy.

When the famous writer and former teacher Aidan Chambers toured Europe, School Library West booked him for two dates. Methods around literacy, as well as discussions around literature gave both librarians and teachers a good chance to extra guiding in their work. Many teachers went straight home to their schools and started working immediately with the methods.

Even after mentioned occasions, the association has arranged several more conferences and meetings around the school library field. Even around the area of research, published in Sweden. Dr. Louise Limberg was one of the key-speakers for a conference around a book facing the Swedish history of research. It was published in 2013, named *The school Library roles in changing landscapes*.

Operating Lobbying Activities, as Well as Meeting Members of Sweden's Library Associations, Mainly at Book-Fairs and Teach-Meets

One of the most important issues for the association is to be a communicative part around the field: school library. Through the years School Library West have made work at fairs, as well as meetings, arranging showcases especially for members from the associations. Delivering free-tickets, selling in memberships to both - single school librarians and corporations and sponsors.

For some years now School Library West and the book-publisher Nypon have been working together, with one common goal: more activities around reading and education in the school library. It has been a fruitful way of growing, both as a movement and as an association.

Except meeting and communicate with people, School Library West and Nypon print material, deliver information, informing about membership and helping customers with reading material.

School Library West also produce exclusive interviews while working at fairs and meetings. In depth conversations with key-persons in the field, on all levels – from authorities to single school librarians and teachers. The material are exposed on the official blog for School Library West. This way the association give the whole country a better knowledge around the situation for school library. Stakeholders of different kind are clear addresses for this type of production. So far the work has been declared as a success by the public.

Managing the Yearly "Malin Koldenius Scholarship" Award

One of the associations five goals concentrate on getting librarians and teachers connected as a working unit in school. The yearly scholar ship, in honour to School Library Wests founder of the award Malin Koldenius, state this work in a most practical way.

From the beginning Malin Koldenius, prolonged librarian and consultant at Region library in the western part of Sweden, thought of different ways to get a descent development, when it comes to teachers using school libraries as a place for education and knowledge.

Malin Koldenius instituted the scholarship at School Library Wests annual meeting. Along with the award itself, came also an amount of money donated to the association. Koldenius delivered the price herself, on stage at the great Bock-fair in Gothenburg. A lot of people showed up, as well as media and newspapers. The award was declared to a *teacher* using the school library in a creditable way.

When Malin Koldenius, after a time of sickness, suddenly passed away, the price was left in the association's service. Koldenius mentioned in her own will – that she wanted the award to be a part of School Library Wests work in the future. There for my task as the chairman of the association is to continue deliver the award, at an every year basis, at the Book-Fair in Gothenburg. In September this year it will be delivered for the eighth time.

CONCLUSION

The following subjects included in this paper are mainly presented as a platform for the upcoming lecture at IASL 2017 entitled: Learning without borders - Efforts and changes around school libraries in Sweden today. A deeper look into some of the issues described in this paper follows as a natural way of taking further steps down the road, so to speak.

The Swedish National Agency of Education

The school law, as well as present statistics on the situation for school libraries in Sweden. More over exclusive information on the political and structural efforts around school libraries in Sweden today. The topics are:

1. A presentation of the work inside the reference group during 2016/2017, where meetings, conferences and discussions between teachers and libraries have been implemented.
2. Governmental economical investment on staff for Swedens wide scale of municipalities.
3. The recently started cooperation around the school library issue between eight national agencies.

The National School Library Group of Sweden (NSG)

A network of central organizations connected to school libraries in Sweden. Focus is mainly on NSG: as a lobbyist to stakeholders in Sweden, as well as an inspirational force to the development of school libraries in Sweden.

School Library West (SBV)

Focus is set on the associations work for the school library as an intellectual place for knowledge, rather than just a place for administration. Also on the efforts being done in getting the librarian and the teacher connected as a working unit in school.

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Education for Teacher Librarians in Germany

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ABSTRACT

This study identifies human perceptions and concerns regarding readiness for teacher library education in Germany (where it currently does not exist) by measuring the perceptions of 183 library science educators, library school students, and librarians in Berlin, Potsdam and Leipzig. The Concerns Based Adoption Model (CBAM) theory and methodology was used to measure these perceptions. The participants deem teacher librarianship education to be very much needed and that it could be incorporated into existing library education programs by introducing 2-3 specific courses. The German library community is enthusiastic about the possibility this education could provide to its students and plan to get involved personally or recommend it to others.

Keywords: Germany, Concerns Based Adoption Model (CBAM), teacher librarian education, school library education, school libraries, Programme for International Student Assessment (PISA)

INTRODUCTION

Various education reforms have been proposed and implemented in reaction to Germany's Programme for International Student Assessment (PISA) rankings over the past decade and a half (Organisation for Economic Co-operation and Development (OECD), 2010). However, one that has been yet to be systematically investigated is how effective teacher library programs could help to increase achievement test scores in Germany as they have in other countries. Since PISA assessments evaluate the wider knowledge and skills needed to participate in social, economic and political life in modern society German librarians responded swiftly to the first PISA results maintaining that PISA was visible proof for the importance of school libraries where problem-solving and self-directed learning occur (Krüger, 2003). Professional library associations in Germany pointed to Finland's success in PISA (Krolak, 2005) whereby Finnish students tend to use libraries more often than students from the other OECD countries (Linnakyla & Valijarvi, 2005).

Despite the potential for school libraries to positively impact PISA scores, it is estimated that less than ten percent of pupils in Germany have access to a library staffed by a professional teacher librarian (Giersberg, 2012). 73% of German students never use the school library - the highest percentage for the countries included in an OECD (2010) study. Reasons for this have included the use of public libraries (Krüger, 2003), reliance on textbooks (Döbert & Sroka, 2004) and the lack of legal norms and standards (Weishaupt et. al, 2013). I have posited that the absence of school libraries might be a result of the related absence of teacher librarianship education in Germany (Everhart, 2009). In order to move forward in developing this education, a research study that identifies human perceptions and concerns regarding readiness for teacher library education was conducted.

Although decisions about educational innovations, such as new coursework, are frequently dependent on higher levels of authority rather than on an individual, the actual implementation of innovation is applied on a personal level (Hord, et. al, 2006; Straub, 2009). Therefore, when one attempts to understand the adoption of innovation, it is necessary to ask certain questions: Is teacher librarianship education desired in Germany? How does an individual feel about it? What are the roles of social contexts in this decision? Based on the importance of individuals and their adoption patterns, the research-based Concerns Based Adoption Model (CBAM) provides both a theoretical framework and methodology to identify individuals' levels of concern and usage when implementing educational innovations (Hord & Thurber, 1991).

METHODOLOGY

Research Question 1

What are the two highest stages of concern for librarians, library science educators, and library science students' regarding the readiness for teacher librarianship education in Germany?

Research Question 2

What are librarians, library science educators, and library science students' feelings and knowledge regarding the readiness for teacher librarianship education in Germany?

Stages of Concern Protocol

In order to answer the research questions, the study integrated a widely used and validated protocol with a strong research base- the Concerns Based Adoption Model (CBAM) - as a framework, and the Stages of Concern Questionnaire (SoCQ) in CBAM as an instrument. The term "concern" does not mean simply someone's psychological state or cognition. The concept of concern has a broader meaning, and the operational definition of concern in the CBAM is the composite representation of humans' feelings and knowledge about a specific event or issue. Furthermore, it includes an individual's human experience - including attitudes, concerns and beliefs (Buckner, 2013) referring to "questioning, analyzing, and re-analyzing, considering alternative actions and reactions, and anticipating consequences" (Hall & Hord, 2011, p. 72). It is clear that the CBAM is not only a simple tool to describe the process of individuals who experience an innovation, but also a comprehensive tool to determine "how to plan for and manage change more efficiently and effectively" (Hord et al., 2006, p. 74).

The SoC model assumes that every user or potential user involved in a change has some degree of concern across all seven stages. However, each individual may experience different intensity levels at each stage of concern. The SoCQ is comprised of 35 items—seven stages of concerns with five items respectively. Each item has eight scales ranging from "0-- This statement is not true of me." to "7-- This statement is very true." With the cooperation of several German librarian colleagues, the SoCQ was translated into German. The SoCQ was conducted online using Qualtrics software and used to make a diagnosis of the concerns of three groups of stakeholders – librarians, library science educators, and library science students.

Subjects were recruited from three German universities via three faculty members who sent emails to their students and faculty with a link to the CBAM survey, encouraging participation. Students were recruited via personal talks on two campuses. I joined the online listserv, Forum Oeffentliche Bibliotheken, giving me access to the librarian population nationwide. The survey was open from March 21 to May 10, 2016. The total usable responses were 183, as several incomplete surveys were eliminated.

Data Analysis

In order to calculate the intensity of concern at each stage, a three-step process was used. First, each stage's sum was aggregated from the scores for all five items. For example, items 3, 12, 21, 23, and 30 belong to Stage 0. To find the total for Stage 0, the total score of item 3, 12, 21, 23, and 30 was added together. Second, the average score was calculated by dividing the sum of raw scores by the number of the total participants. Lastly, the resulting percentiles were determined by the Raw Score to Percentile Conversion Table providing the prior percentiles for each stage by Hall, George, & Rutherford (1977). The percentiles of the different levels of concern will be calculated by matching the average score of each stage to the established percentiles. These percentile scores enable the researcher to obtain the SoCQ profile.

FINDINGS

Participants

The participants were from various employment backgrounds, ages, levels of education, and states in Germany. The highest numbers of participants are teacher librarians (65 or 36%), followed by public librarians (46 or 25%), academic librarians (30 or 16%), other (26 or 14%), library science students (13 or 7%), and library science faculty (3 or 2%). Respondents' average age is 44 years old with the majority falling in the middle age. No respondents were over 65 years of age.

An applied sciences (undergraduate) degree is the required credential for librarians in Germany and this was the predominant level of education (42%) reported. German librarians may also receive a

master's degree at one university - Humboldt University. 33% of all respondents have this degree, which is higher than expected, but may be due to the fact that I was based at this university. Smaller numbers are for high school (12%), advanced degree (8%), below high school (3%) and other (2%).

The respondents come from almost all of the states in Germany with the exception of Bremen and Saarland. The most prevalent states where respondents reside are those containing urban areas - Nordrhein-Westfalen (18%), Berlin (14%) and Hessen (10%), which is to be expected.

Research Question 1: Highest stages of concern regarding the readiness for teacher librarianship education

The highest stage of concern in the Concerns-Based Adoption Model (CBAM) is referred to as the *peak stage* and represents the stage with the highest intensity among the seven stages of concern. The peak stage is a measure of the most intense concern that the participants felt about teacher library education at this point in time. In the context of the CBAM, percentiles are not absolute, but rather relative to other stages' scores (George, Hall & Stiegelbauer, 2013). Additional insight into the dynamics of concerns can be developed by analyzing the second highest stage score in addition to the peak score. The developers (George, et. al, 2013) note that the second highest Stage of Concern will often be adjacent to the highest one.

The Stages of Concern profile for each of the representative groups can be seen in Figure 1. Each of the six follows almost an identical pattern with the peak score in Stage 0 (unconcerned) and the second highest score in Stage 1 (informational). This is the most consistently identified concerns profile – the typical Nonuser. High scores in Stage 0 indicate the degree of priority that the individual is placing on the innovation and the degree of interest in and engagement with the innovation in comparison with other tasks. The higher the Stage 0 score, the more the respondent is indicating that there are a number of other tasks and activities that are of concern to him or her. In other words, the innovation is not the only thing the respondent is concerned about (George, et. al, 2013). This would most likely be the case with teacher librarianship education, which for many of the respondents may have been presented to them for the first time in this survey.

Nonusers' concerns normally are highest on Stages 0, 1, and 2 and lowest on Stages 4, 5 and 6. The profiles of the German library community show high Stages 1 and 2 and it can be inferred that the members are interested in learning more about the innovation. They do not have significant management concerns (Stage 3) and they are not intensely concerned about the consequences of teacher librarianship education (Stage 4). The profiles tail up in the Collaboration Stage (Stage 5) indicating that the respondents want to share ideas with others about teacher librarianship education. They answered positively to questions such as: "I would like to familiarize other departments or people with the progress of this new approach if it were implemented" and "I would like to coordinate my effort with others to maximize teacher librarianship education." The Refocusing Stage (Stage 6), whereby respondents indicate whether they have additional ideas to make the innovation work better, is moderate.

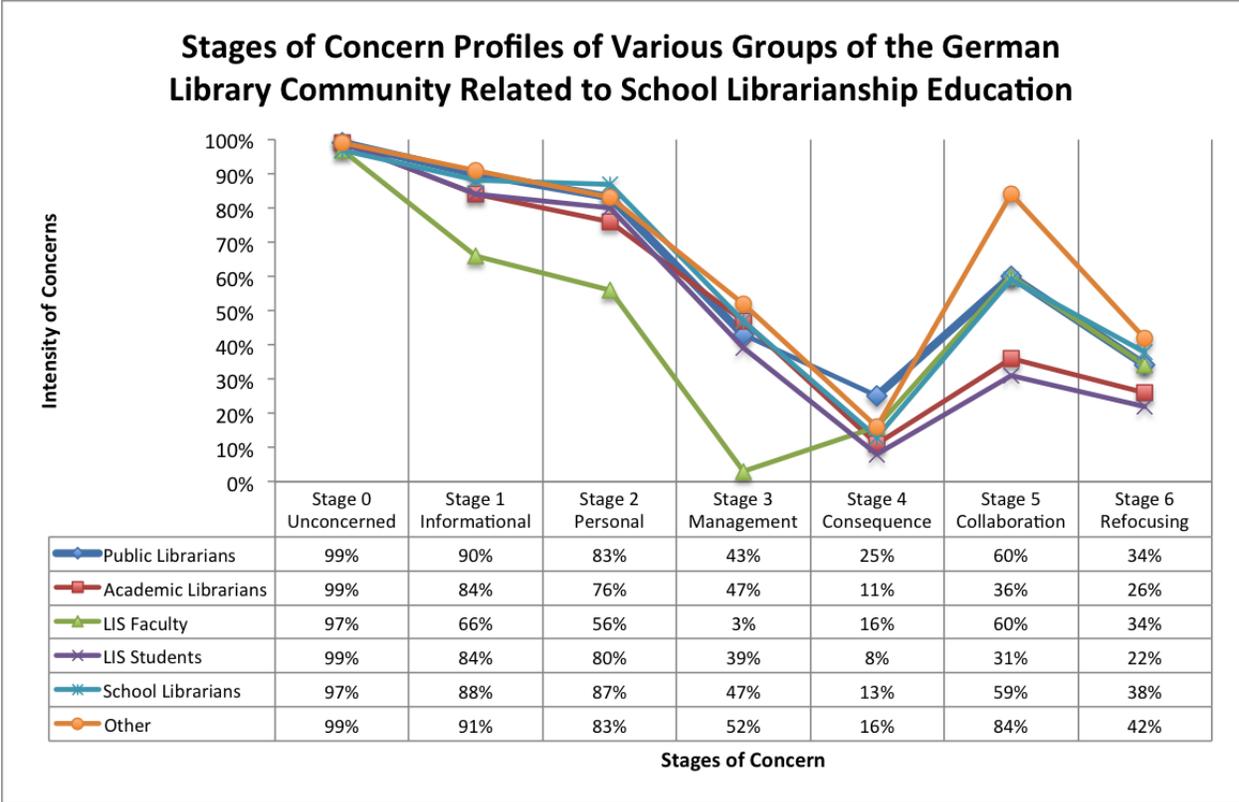


Figure 1: Comparison between the SoC profiles of public librarians, academic librarians, LIS faculty, LIS students, teacher librarians and others

Research Question 2: Feelings and knowledge regarding the readiness for teacher librarianship education

The purpose of this research question is to ascertain both prior knowledge about school libraries and future action steps as to the establishment of teacher librarianship education. As shown in Figure 2, 83% of the respondents know about or have used school libraries with 50% believing that school libraries should be established in Germany. A very small number had never visited a school library (3%) or had no experience with school libraries (3%). Another 10% did not use school libraries as a student and 2% had only read about school libraries. One can conclude that there is vast knowledge about school libraries and a positive reception to establishing them.

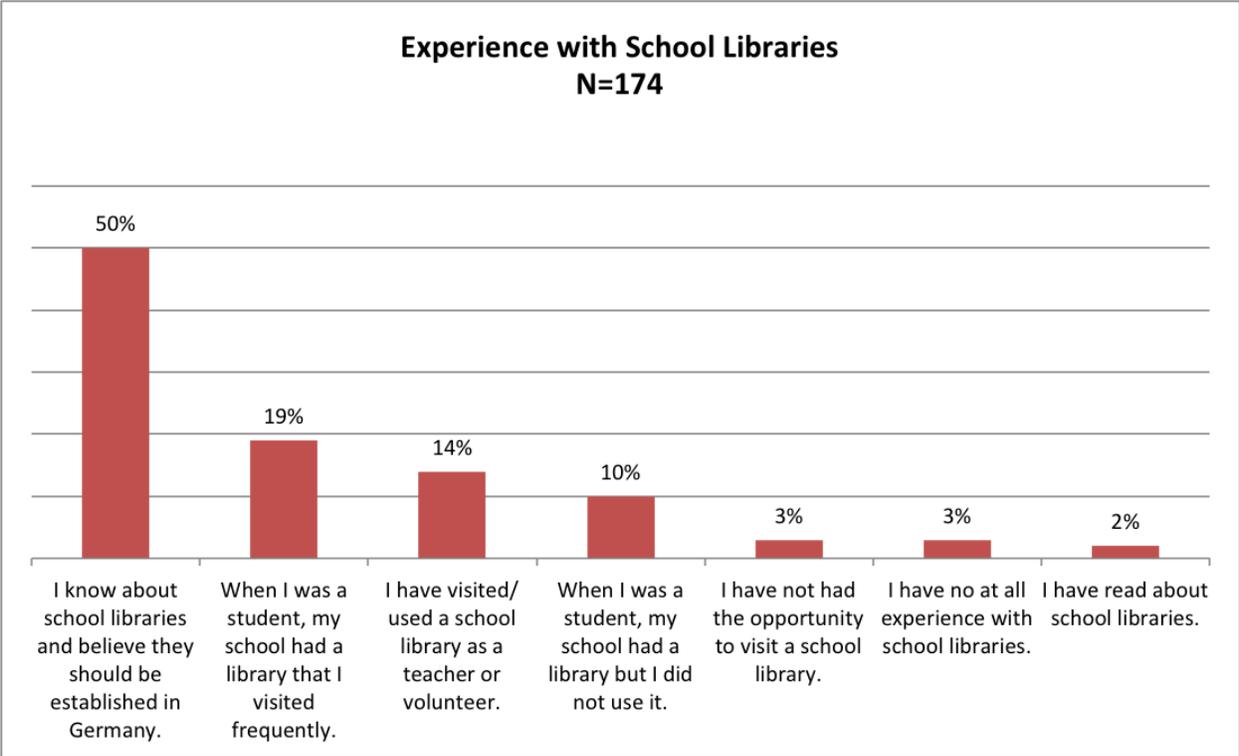


Figure 2: Respondents' experience with school libraries

The overwhelming positive response to the statement about PISA scores, “Schools having a school library with a teacher librarian could potentially raise PISA scores” was enlightening. 78% believe that school libraries/teacher librarians have potential to increase PISA scores. Another 10% also believe they do, but only slightly, and not enough to warrant the expense. Only 12% believe there would be no effect and no one predicted a decrease in scores. Not one person (0%) was unfamiliar with PISA, proving the importance of this international assessment in Germany. This connection may provide an inroad for discussions on the establishment of school libraries and educating teacher librarians.

Figure 3 presents the responses to questions about opinions on what teacher librarianship education should be. A majority (29%) favors establishing 2-3 specific school library courses in the undergraduate library education program- similar to the model used in the U.S at the master's level. 18% would like to see an entire bachelor's degree in school librarianship. There is also support for integrating teacher librarianship courses in teacher education programs – 9% are in favor of one course and 7% are in favor of 2-3 courses. Another 10% value a post high school certificate. Only 3% believed there is no need for teacher librarianship education.

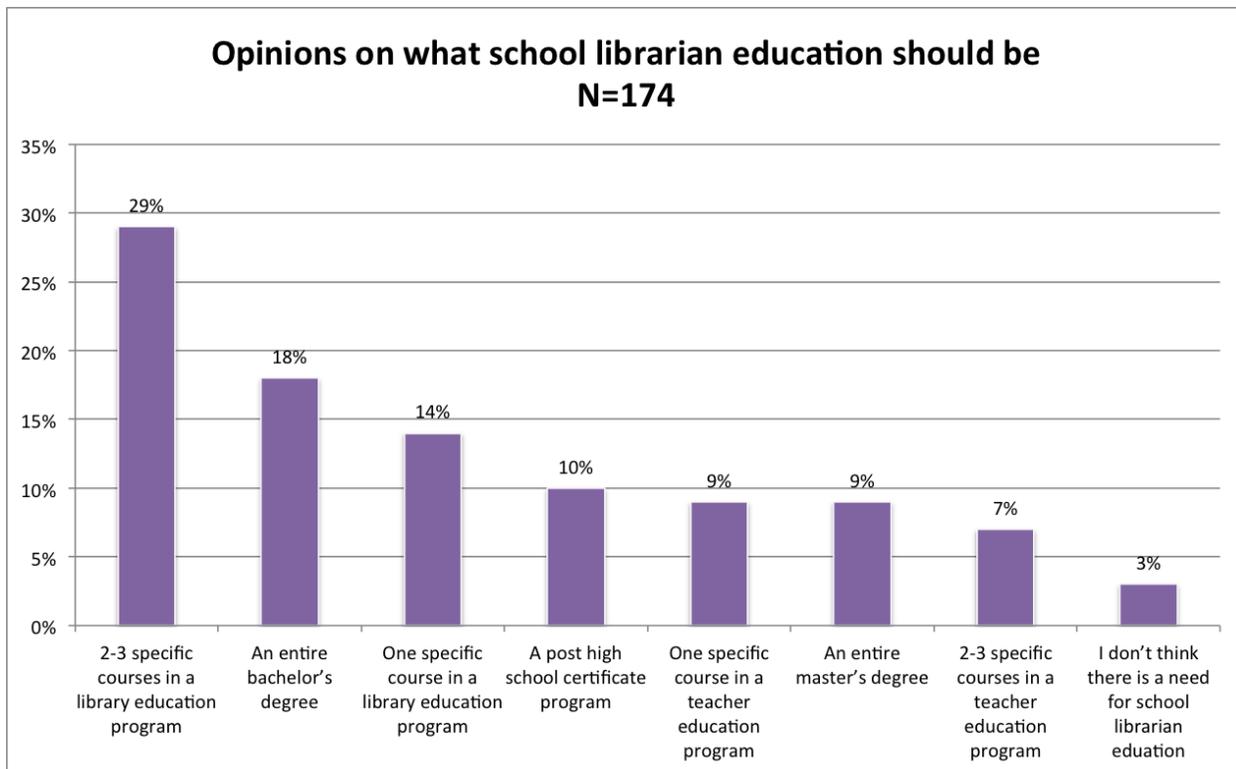


Figure 3: Descriptions of a possible teacher librarian education curriculum

Respondents are eager to get involved in teacher librarianship education if it were to be established. They would actively recommend potential students (37%), enroll themselves (24%) or want to be an instructor (25%). Only 13% said they would do nothing. This enthusiasm bodes well if teacher librarianship education would be established.

CONCLUSIONS

The administration of the Stages of Concern Questionnaire with a sample of German librarians, students, faculty constructs knowledge about how teacher librarianship education might be received. Many of the participants were presented with the “innovation” of teacher librarianship education for the first time in this survey thus generating a profile of Nonuser – someone who has other priorities at this time. The profiles of the German library community also show high Stages 1 and 2 and it can be inferred that the members are interested in learning more about teacher librarianship education. The profiles in the Collaboration Stage (Stage 5) reveal a community eager to share ideas about teacher librarianship education if might be established.

Substantial knowledge about school libraries and their potential to impact change in German schools was evident in the responses. Traditional teaching and reading appreciation roles for teacher librarians were noted as most important, but a high percentage also felt that PISA scores could be raised having teacher librarians and school libraries.

The participants deem teacher librarianship education to be very much needed and that it could be incorporated into existing library education programs by introducing 2-3 specific courses. The German library community is enthusiastic about the possibility this education could provide to its students and plan to get involved personally or recommend it to others.

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Theory Building for the Profession of Teacher Librarianship: An Application of Meta-Ethnography

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ABSTRACT

The lack of theoretical foundations for research in the field of library and information science is well documented and leads researchers to borrow from other fields. In the case of school library research, the tendency is to borrow from the field of education. While many theories from education and other disciplines are applicable to school library research, there needs to be development of theory among school library researchers in order to give practitioners understanding of the complex relationships involved in school libraries and guide future research efforts. Meta-ethnography uses findings reported in previous studies as building blocks for gaining deeper understanding of a particular phenomenon and is highly applicable for the initial stages of theory development. This paper provides a thorough description of the meta-ethnography method and an example of how meta-ethnography can be applied for theory building in school library research.

Keywords: School Libraries, Meta-ethnography, Theory

INTRODUCTION TO THE PROBLEM

The critical need for theoretical foundations in the library and information science (LIS) profession is well documented (e.g., Grover & Glazier, 1986; Hjørland, 1998; Julien & Duggan, 2000; Julien, Pecoskie, & Reed, 2011; Leckie, Given, & Buschman, 2010; McKechnie & Pettigrew, 2002; Pettigrew & McKechnie 2001). A theoretical foundation helps define a discipline and is necessary “for framing research problems, building arguments, and interpreting empirical results” (Pettigrew & McKechnie, 2001, p. 62). Theory is also “an important element for establishing the identity of LIS” (Kim & Jeong, 2006, p. 549) and yet there has been little attention paid to theory in the literature of the field and there is even a decline in theory use and development (Julien & O’Brien 2011; Kim & Jeong, 2006). This decline in theory development may represent a trend in LIS research to utilize “existing theory rather than to generate new theories” (Kim & Jeong, 2006, p. 559). This study utilizes meta-ethnography to develop a theory of teacher librarian leadership.

REVIEW OF RELEVANT LITERATURE

Since the discipline of library and information studies is principally defined as a social science, and ethnography is employed for social understanding (Bawden, 2012), it can be posited that ethnographic studies can be useful for theory building in LIS as they are in other social science specialties. Meta-ethnography, a specific form of ethnography developed by George W. Noblit and R. Dwight Hare (1988), enables researchers to understand and synthesize the findings of two or more qualitative studies concerning a similar research question or topic. Mike Weed (2005) has described meta-ethnography as a form of meta-interpretation. Going beyond the traditional literature review, which looks at individual studies, meta-ethnography facilitates generalizations through extracting concepts, metaphors, and themes (Burns, 1989).

Meta-ethnography is interpretive rather than aggregative, with the goal being to “produce new interpretations of the primary study author’s interpretations (e.g., themes, concepts or metaphors) of the research participants’ experiences in published primary qualitative studies” (France et al., 2014, para. 4). Also, unique to meta-ethnography is the systematic analysis process designed to preserve the context and

meanings of the primary studies through utilizing translation, which is “the process through which data are synthesised - it involves continuously comparing the meaning of the concepts from all the primary studies to reach a full understanding of the issues” (France et al., para 4). Noblit and Hare (1988) described it as “making a whole into something more than the parts alone imply” or going beyond the findings of any individual study (p. 28).

APPLICATION TO LIBRARY AND INFORMATION SCIENCE RESEARCH

As qualitative research has been increasing over the past three decades, particularly in top-ranked Library and Information Science journals (Agosto et. al, 2007), meta-ethnography can provide a useful method for synthesizing this research for new understandings. Some have noted that as a discipline we need to make better use of existing research evidence, instead of conducting yet more small-scale studies (Urquhart, 2011). Library and information science has been criticized for a lack of dialogue, a tendency to develop new models - rather than test the transferability of existing models, overuse of surveys that do not lead to theory, confusion over the paradigms used, and using a narrow lens to examine a problem (Afzal, 2006; Bates, 2005; Dervin, Reinhard, & Shen, 2006). Meta-ethnography, by reconceptualizing and synthesizing existing research, “compels us to acknowledge the uniqueness of individual cases, but also the uniqueness of collectives” (Urquhart, 2011, p. 38).

It has been posited that since only high quality data are analyzed in a meta-ethnography, it can lead to conclusions on the effectiveness of an intervention and the creation of new understandings (Bawden, 2012; Urquhart, 2011). This is an extremely valuable application of the method for LIS because “unfortunately, randomised controlled trials are not appropriate for answering many of the questions that arise in information behaviour” (Urquhart, 2011, p. 40). Jonathan Lomas (as cited in Shelbe, 2016) pointed to the development of data repositories over a decade ago as a resource in extending synthesis approaches to incorporate viewpoints of a wider spectrum of stakeholders. The increase of university research repositories makes a wide range of unique historical, as well as original, research broadly available in LIS, which can function as sources for meta-ethnography studies.

Meta-ethnography also has implications for research teams. The method is richer when multiple researchers bring various perspectives to the process of reading, summarizing, and bridging summaries. This leads to resulting products that are logical, deductive rationalizations, sound conclusions, and to calls for further research (Doyle, 2003; Toye et al., 2014). Meta-ethnography extends borders by allowing researchers to communicate across fields, which is important in an inter-disciplinary and multi-faceted field like LIS. Shuaib Meacham (1998) argues that today’s educational issues and problems cannot be studied in an isolated and homogeneous manner; researchers from multiple disciplines need to be “brought together simultaneously” (p. 405). This can also be a useful exercise for doctoral students. Norman Lincoln and Yvonna Denzin (2000) even suggest that researchers can enhance translations by including the voices of those researched to seek new interpretations. Additionally, when researchers enhance their translations with rich detail and the language of participants, they raise, not mute, the voices of those who are researched.

DESCRIPTION OF THE METHOD

Noblit and Hare (1988) provide a seven-step process for conducting a meta-ethnography as shown in Figure 1. This method begins with the research idea and takes the researcher through to expressing the findings; each step is described in detail below. The steps are not necessarily discrete, but rather are part of an iterative research process (Toye et al., 2014).

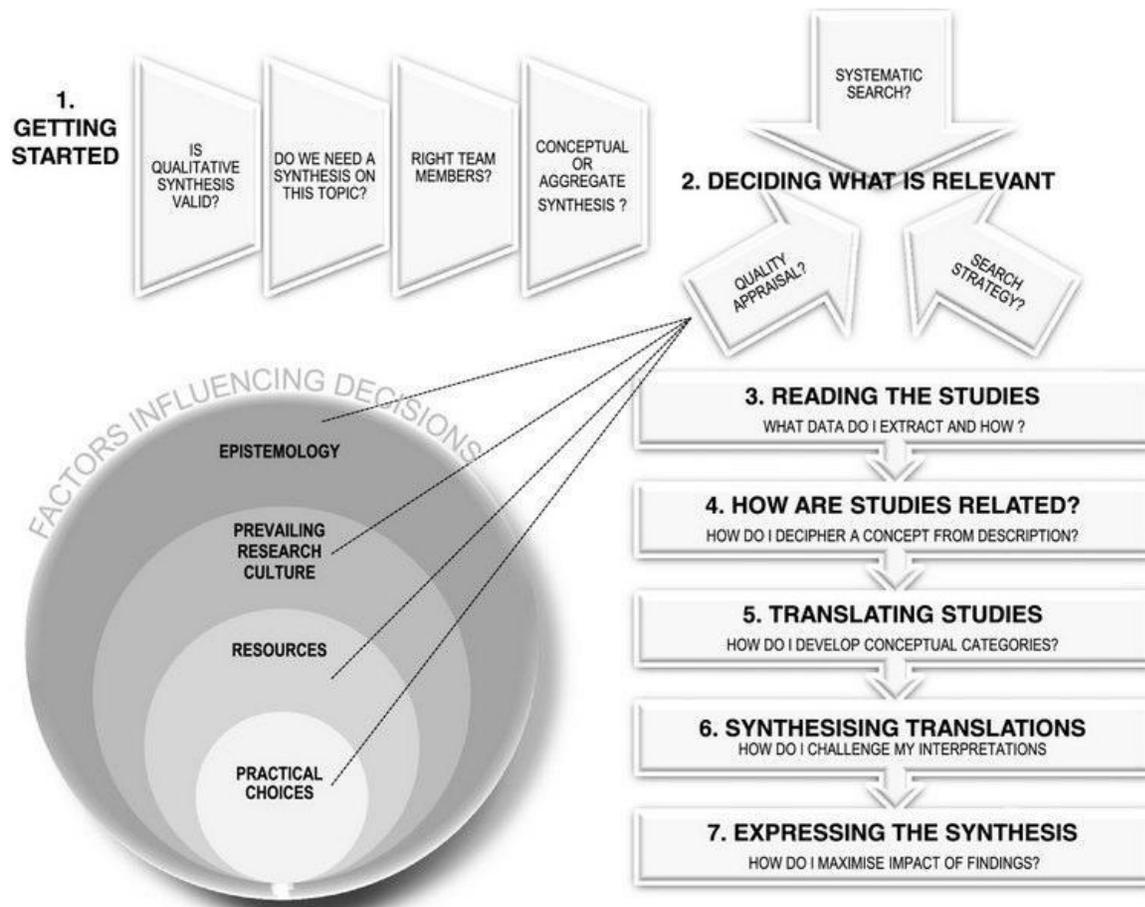


Figure 1. Stages of Meta-ethnography: 1. Getting started; 2. Deciding what is relevant; 3. Reading the studies; 4. Determining how the studies are related; 5. Translating studies into each other; 6. Synthesising translations; 7. Expressing the synthesis (Toye et al., 2014)

APPLICATION OF THE METHOD

Although a few researchers have maintained that meta-analysis has the potential to make substantive contributions in LIS research (Afzal, 2006; Ankem, 2005; Bawden, 2012; Hjørland, 2001; Shelbe, 2016; Urquhart, 2011), there had not been a study in LIS that applied a meta-ethnographic approach as formulated by Noblit and Hare (1988) until this study. This research provides an example of how meta-ethnography can be applied for theory building in LIS. Meta-ethnography proved to be a rigorous and robust method to develop a conceptual model of teacher librarian leadership for a team of two researchers based on six studies that were relevant to the topic. The meta-ethnography method allowed for the identification of key concepts and the initial explanation of their interdependence. This resulted in five key propositions towards a theory of teacher librarian leadership, which can be seen in Table 1.

Table 1. Results of a Meta-Ethnographic Study of Teacher Librarian Leadership

Focus of Relevant Studies	Concepts	Second-Order Interpretations	Third-Order Interpretations	Propositions
Developing a	Resistance: to	Teacher librarians	Teacher librarian	Education can

<p>leadership curriculum (Everhart and Dresang, 2007)</p> <p>Impact of teacher librarian preparation programs on leadership development (Smith, 2009)</p> <p>Leadership of National Board Certified teacher librarians (Everhart, Mardis and Johnston, 2011)</p> <p>Enablers and barriers to technology leadership (Johnston, 2012)</p> <p>School-wide leadership for the first-year teacher librarian (Mardis and Everhart, 2014)</p> <p>Leadership in the adoption of digital textbooks (Kang, 2015)</p>	<p>professionally defined leadership roles; to broadly and boldly sharing knowledge; from technology coordinators</p> <p>Growth: via formalized processes, personal exploration, and dedication</p> <p>Relationships: with peers, teachers, students, and principals</p> <p>Communication: within and beyond the school and the professional communities; face to face and electronic</p> <p>Confidence: acquired via education in leadership skills and strategies, and via personal use and expertise with technology</p>	<p>value leadership advice from those inside the profession rather than those from outside.</p> <p>Technology can be a vehicle for building confidence and leadership skills.</p> <p>Relationships with others impact leadership enactment.</p> <p>Teacher librarians are hesitant to share their expertise beyond their school buildings.</p>	<p>leadership is more traditional than transformational.</p> <p>Teacher librarian leadership can be taught to some degree but individual and school characteristics influence the extent that leadership can be exerted.</p> <p>Teacher librarian leadership develops more comfortably and successfully with peers.</p> <p>Teacher librarian leadership requires a mind-set.</p>	<p>provide a leadership skill set to bolster confidence for the growth of Teacher librarian leadership.</p> <p>Peers contribute to teacher librarian leadership growth.</p> <p>Teacher librarian leadership growth requires a specific mind-set.</p> <p>Teacher librarian leadership engagement follows traditional leadership patterns and is resistant to forms of leadership that require taking risks.</p>
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The concepts and propositions derived from the meta-ethnographic exercise developed into a conceptual model (see Figure 2) to express the synthesis.

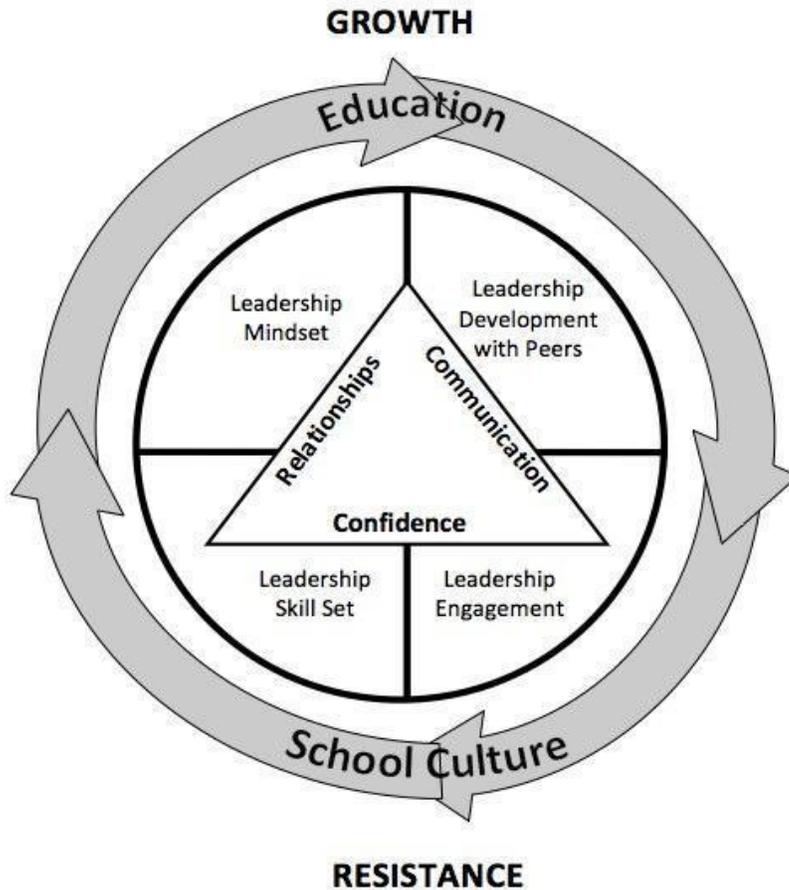


Figure 2. Conceptual model of teacher librarian leadership.

FINDINGS AND DISCUSSION

Phase one of developing a conceptual model begins with conceptual development, which requires the formulation of “initial ideas in a way that depicts current, best, most informed understanding and explanation of the phenomenon, issue, or problem in the relevant world context” (Lynham 2002, p. 231). “The output of this phase is an explicit, informed, conceptual framework that often takes the form of a model and/or metaphor that is developed from the theorist’s knowledge of and experience with the phenomenon, issue, or problem concerned” (Lynham 2002, p. 232).

Laura Sheble (2016) recently echoed the thoughts of Hjørland (2001) from over a decade ago that research synthesis has been neglected in LIS literature. Sheble presents a detailed comparison of the differences in the steps in conducting research synthesis and a meta-ethnography, asserting that meta-ethnography is a more developed and interpretive approach. Keeping the defined differences in mind that differentiate research synthesis from meta-ethnography, there had not been a study in LIS that applied a meta-ethnographic approach as formulated by Noblit and Hare (1988) until this one. This research provides an example of how meta-ethnography can be applied for theory building in LIS. The output for this first phase of theory building is a research-informed conceptual model (Lynham, 2002). Our model is based on

flexible conceptual terms rather than rigid theoretical variables and causal relations, and can, therefore, be modified with the evolution of teacher librarian leadership or as a result of new research. This conceptual model aims to help educators understand the phenomenon of teacher librarian leadership rather than to predict it.

CONCLUSION

Use of synthesis methods such as meta-ethnography “is an important development for library and information science researchers and practitioners because it has affected how researchers in other fields interact with literature, data, and information infrastructures” (Sheble, 2016, p. 1990). Opportunities arise from “undiscovered public knowledge” (Swanson, 1986, p. 104) and the ability to synthesize across research studies for the purpose of contributing to theory development (Glaser & Strauss, 1971; Grover & Glazier, 1986). Our utilization of meta-ethnography for theory building in LIS provides a model and proof-in-concept for other researchers. Further studies are needed to support this theory-in-progress once the results have been disseminated.

In the next phase of theory building, the proposed model, concepts, and propositions need to be confirmed and/or tested in real-world contexts. We propose this conceptual model as a starting point and believe that this model and the propositions emerging from it provide an agenda for future research. Therefore, to contribute to further developing a theory of teacher librarian leadership to inform and improve practice, future research investigating and testing the propositions in the real-world context of teacher librarianship is planned.

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“The Library Will Buy You a Book Day”: A Novel Approach to Promoting Recreational Reading

Robert Hilliker

Director of the Edsel Ford Memorial Library, The Hotchkiss School

ABSTRACT

This paper examines the impact of “The Library Will Buy You a Book Day,” an event designed to promote recreational reading among students at The Hotchkiss School, an independent boarding high school of roughly 600 students located in Lakeville, Connecticut. Situating this event in the ever-growing body of research showing that an interest in reading for pleasure correlates strongly with academic success, this paper suggests one approach to putting the research to work in designing programs that increase students’ likelihood of engaging in recreational reading by promoting positive attitudes towards reading in the community and reducing barriers to access to compelling books.

Keywords: Recreational Reading, Reading Habits, High School Students

“Reading for pleasure can increase empathy, improve relationships with others, reduce the symptoms of depression and dementia, and improve wellbeing throughout life”: I start with this brief statement from Dawn Finch, President of Chartered Institute of Library and Information Professionals in the United Kingdom, taken from her review of the Reading Agency’s 2015 *Literature Review: Reading for Pleasure and Empowerment*, because it encapsulates what we all know from our own experience as school librarians, not to mention the rafts of studies that were summarized in that landmark report and others since. Reading for pleasure can change all our lives for the better: the question for us is, how do we encourage reading for pleasure among our students?

Again, we have rafts of studies to help us navigate these waters, but it really boils down to a handful of straightforward principles: share our own joy of reading with our students (Merga 2015), surround them with a diverse collection of books and support them in discovering those that speak to them (Gretes 2013, Mueller et al. 2016), promote a sense of ownership of reading (Clark and Poulton 2011), and make time and space for reading in the school day. The concept that I want to share with you all today may be novel, but it’s not rocket science—it’s precisely the kind of thing any of us can come up with if we’re able to get outside of the usual way of doing things in order to directly pursue the higher goal of encouraging recreational reading among our students.

Before I turn to my core matter, though, I want to share with you that I work in a beautiful and well-staffed library. The previous director, Walter DeMelle, who some of you may know, did an amazing job building a robust collection and working with donors and architects to develop the original Edsel Ford Memorial Library into a spacious, warm, and inviting facility that serves a student body of roughly 600 high school students, 150 faculty members, 150 staff, their families, and the surrounding towns, whose residents have borrowing privileges at our library. We also have a staff of 10 in the library, including myself, and half of us have an MLIS or equivalent degree. I recognize that this is an embarrassment of riches for a high school library, but I still feel strongly that the concept of “The Library Will Buy You a Book Day” has the potential to be adapted to any number of libraries of varying levels of staffing and financial support.

When I was hired as Director of the Ford Library some four years ago, one of the directives I received from the new Head of School was to build bridges out from the library into the rest of the Hotchkiss community, to increase the approachability of the library and the librarians. In pursuit of that goal, I sought out every opportunity to introduce some extra fun into the students’ day—as one small example of the kind of lengths I would go to, we held a “Globe Party” in the library to celebrate the arrival of a new globe. There was food and drink, the globe itself on a handsome wooden stand built by

the school's carpenters, and roughly 20 students who attended and had an excellent time. This event and others like it were a lot of fun, and they helped shift the perception of the library among at least a certain cohort of students, making it more of a social hub than it had been in the past, but they didn't necessarily have the kind of programmatic effect I was looking for: they didn't really promote reading as such.

At the same time, the Ford Library team worked hard to develop existing and new programs to promote reading among the student body: beginning a rental program for YA titles, initiating a Personal Librarian program modelled on those at many of the Liberal Arts colleges our students attend upon graduation, enhancing the visibility of recreational reading titles in our main lobby, promoting Banned Books Week and other reading-oriented events within the school community. These programs, too, had their impact, but we often felt as though they weren't really connecting with students beyond those who were already committed library users.

For me, the revelation about how to instill excitement into library-supported recreational reading came as I pondered how to take advantage of one of the great rituals at Hotchkiss: the "Head of School's Holiday," an unscheduled event that comes 3 or 4 times a year, when the Head of School makes a surprise announcement to students declaring a break in classes, accompanied by a number of fun, school-sponsored activities. Having seen a couple of these go by, I realized that there must be a way to piggyback on the holiday to promote recreational reading. The spark of realization hit me as I considered how, during our Head's Holidays, there is always a student bus running into Millerton, New York a small town 3 miles from the Hotchkiss campus with a busy Main Street full of local shops—including one of our country's great independent bookstores, Oblong Books. The solution was simple: we would meet them at the bookstore and buy them books!

After talking the idea through with my team, we developed that germ of an idea into a coherent vision: we would have several librarians embedded at the bookstore throughout the day, meeting students and helping them find books they would like to read—but that the library didn't already own—and then buying the books for them to take away from the store and read. We did introduce one catch: we asked them to bring the books back to the library when they were done with them, which they were happy to do. Here is the email message I wrote to promote the first ever "Library Will Buy You a Book Day" event:

There is one simple equation that every student should know: libraries = free stuff. We have books, cameras, computers (and chargers), even a globe. But we don't always have exactly the book you want to read right now--or maybe we do, but someone else got their hands on it first!

Problem, meet solution: tomorrow, between the hours of Noon and 3pm, you can go to Oblong Books in Millerton and the library will buy you a book! That's right, the library will buy you a book. (There's just one catch, when you are done with it, you need to bring it back.)

So, take the shuttle into town, go to Oblong, find the book that speaks to you, let the staff know you are a Hotchkiss student, use the sign-up sheet at the register, and you'll be all set!

That first year, we had 75 students show up to choose a book—over 10% of the student body. Their selections ran the gamut from self-help, to history, to art books, to science fiction, to classic novels. We also heard from a number of faculty members who asked whether they were welcome to attend and take part as well: our official announcement had only gone out to students, but it seems word spread quickly about this great opportunity from the library. Thinking it through, we realized that expanding participation in the event to include faculty and staff at Hotchkiss would be an excellent way to bring the community together in a shared love of reading. Going forward we have opened the invitation to the full school community. We now have three of these annual events under our belt and, at the last one, we bought over 100 books for our school's readers, with ample participation from across the Hotchkiss community.

This is all well and good, but did our event generate any measurable increase in recreational reading at Hotchkiss? There are a number of ways to test this assumption: measuring the circulation of items purchased during this event against the circulation of other similar items in our collection; surveying our students to learn about their recreational reading habits and their participation in this event; to get a broader sense of the impact we have on our students, we could also compare the borrowing habits of our Seniors based on their year of entry into the school.

At first glance, the circulation data certainly suggest that this event drives recreational reading. As Table 1 below indicates, books we purchased during “The Library Will Buy You a Book Day” were borrowed significantly more on average than regular purchases made during the same calendar month, an effect that appears to increase the longer we hold these titles.

Table 1: Total Per Item Circulation as of June 15, 2017 and by Date of Purchase

	Feb 2017	May 2016	May 2015
Oblong	1.3	1.84	2.76
All Books	1	1.14	1.59

Similarly, in Table 2, we see that Seniors who entered the school in 9th Grade or 10th Grade read significantly more than those who enter in 11th or 12th. Obviously this number cannot be tied as directly to recreational reading, as there may be any number of other reasons for the variation. One of the most obvious would be that three- and four-year Seniors took different courses than the one- and two-year Seniors. Having reviewed the enrollment data, however, I found only three courses where the enrollment varied widely by year of entry: our Honors English Senior Seminar, Shakespeare and the Bible (another advanced English elective), and AP Economics almost exclusively enrolled three- and four-year Seniors. Clearly the first two of these courses would be likely to drive additional circulation, though it would seem unlikely that they account for the total difference.

Table 2: Mean and Median Senior Student Circulation by Year of Entry

	2013	2014	2015	2016
Mean	15.6	12.25	5.27	5.92
Median	8	6.5	4	4

Another major, course-related difference is that three- and four-year Seniors all participated in Hotchkiss’s Humanities program, an interdisciplinary set of courses that includes two major research projects, completed in close partnership with the Ford Library. Ultimately, that base of experience working with librarians and the library collections may drive circulation in general, although whether that reading is recreational in character is another matter altogether.

A fuller picture of our students’ recreational reading habits emerges from a survey we carried out this past May. Our survey (see Appendix A) was based on one developed by Judy Gallik for use with her students at Schreiner College (Gallik 1999). The main modifications made to the survey were removing a number of the demographic questions, to avoid discouraging participation by students who might be leery of sharing their GPA, and distinguishing between print and online sources more fully to get a better picture of the students reading habits. We also added a question to be able to correlate the other data points to participation in the “Library Will Buy You a Book” event. Of the 623 students currently active when we issued the survey, 135 began and completed it in full, for a robust response rate of roughly 21.7%. Those who replied were relatively evenly divided between three of the four grade levels: 35 Grade 9s, 44 Grade 10s, 40 Grade 11s, and 16 Grade 12s.

An analysis of the data from this survey leads to a number of observations that suggest the impact of this event on our students, as well as helping us understand their reading habits more generally. For example, students by and large report a greater interest in self-directed reading than they are able to satisfy during the academic year, with over 90% reporting that they would read more if they had more free time in which to read—including 100% of those who reported attending “The Library Will Buy You a Book Day.” Older students more frequently reported having participated in the event, while 9th graders were less likely to have heard of the event at all (see Chart 1). Several other strong correlations jump out of the data: students who participate in the event report overall higher rates of recreational reading during the summer (Chart 2), and reading in print (measured by aggregating responses for all print sources listed in question 4 of the survey) also correlates with participation in the event (Chart 3), as well as with class year to a slightly lesser degree (Chart 4). Meanwhile, reading online shows weak associations with participation in the event and class year (Charts 5 and 6, respectively).

Chart 1: “Library Will Buy You a Book Day” Participation and Awareness by Class Year

Did you participate in the "Library Will Buy You a Book Day"?

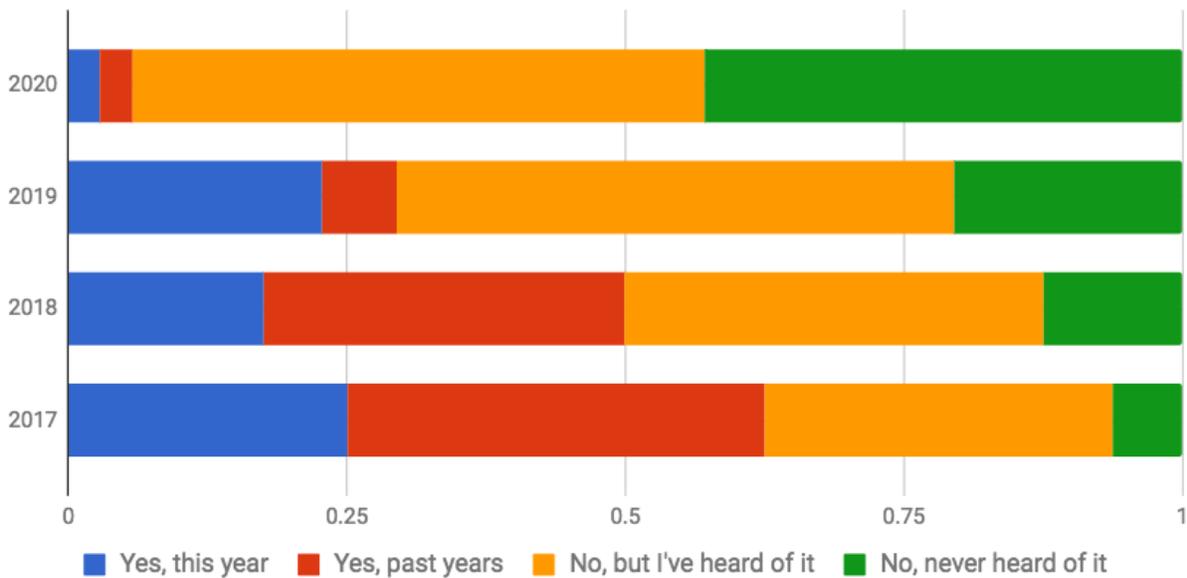


Chart 2: Summer Reading by "Library Will Buy You a Book Day" Participation

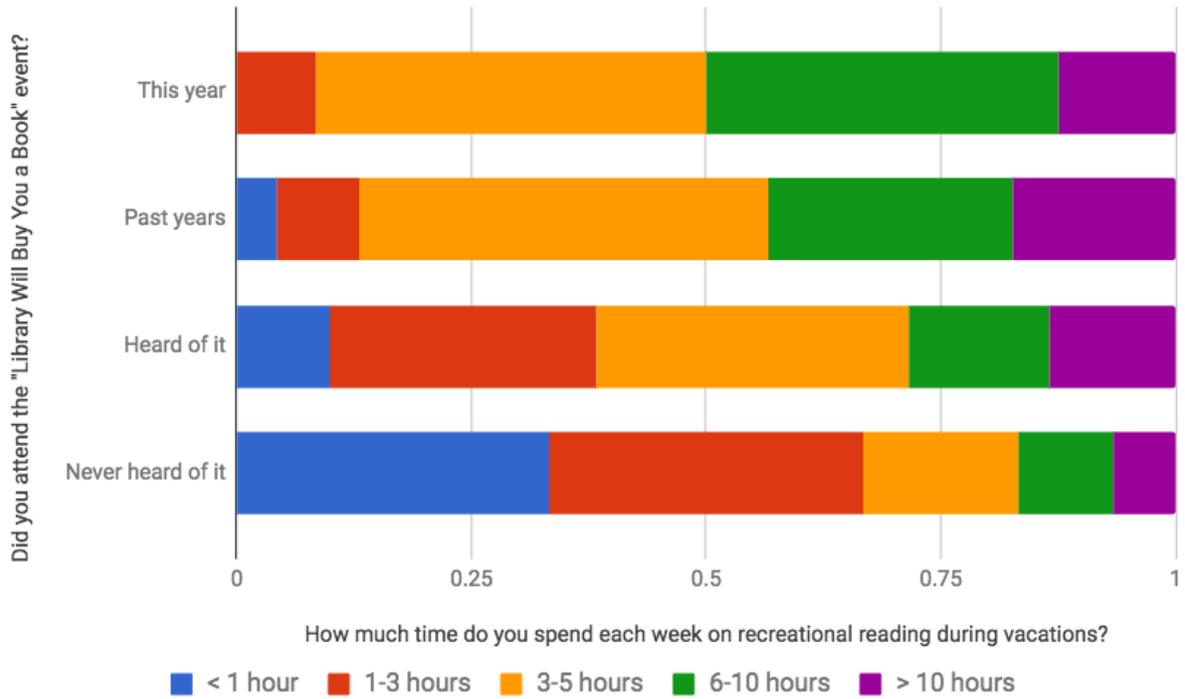


Chart 3: Print Reading by "Library Will Buy You a Book Day" Participation

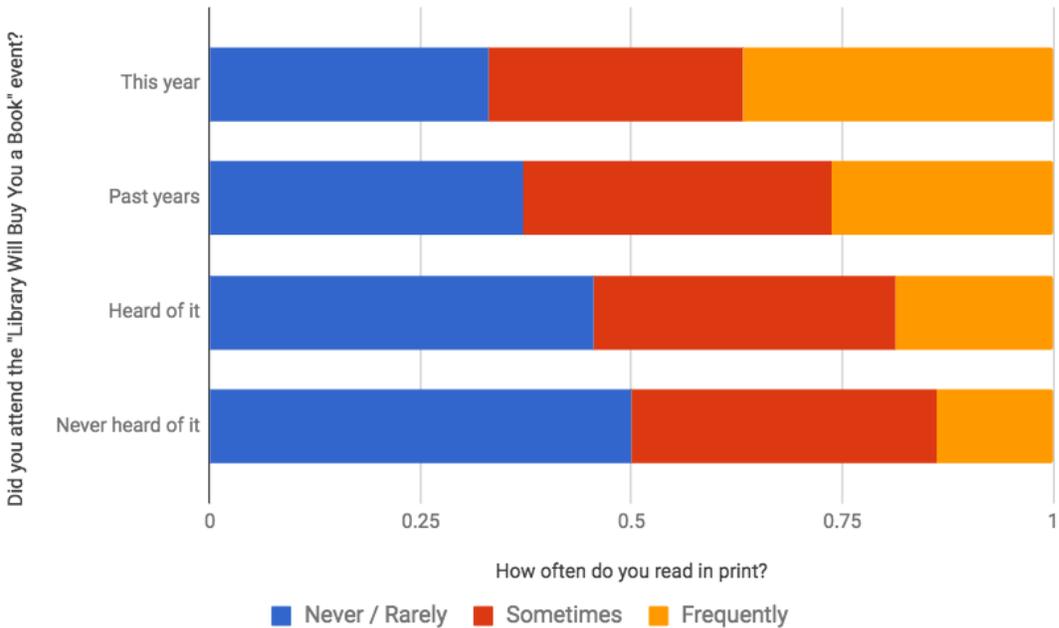


Chart 4: Print Reading by Class Year

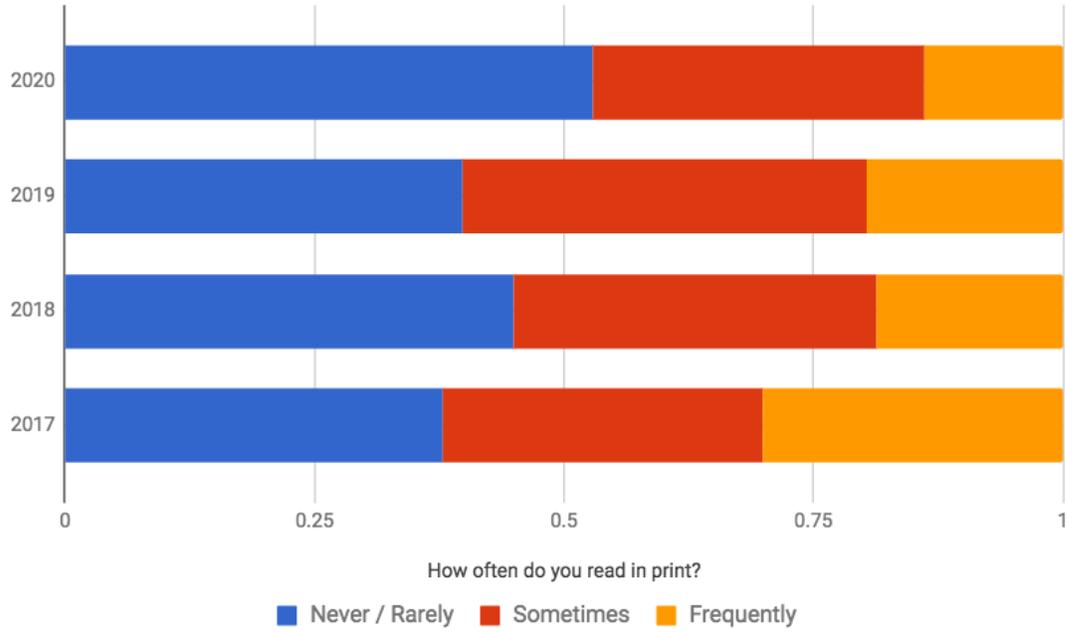


Chart 5: Online Reading by "Library Will Buy You a Book Day" Participation

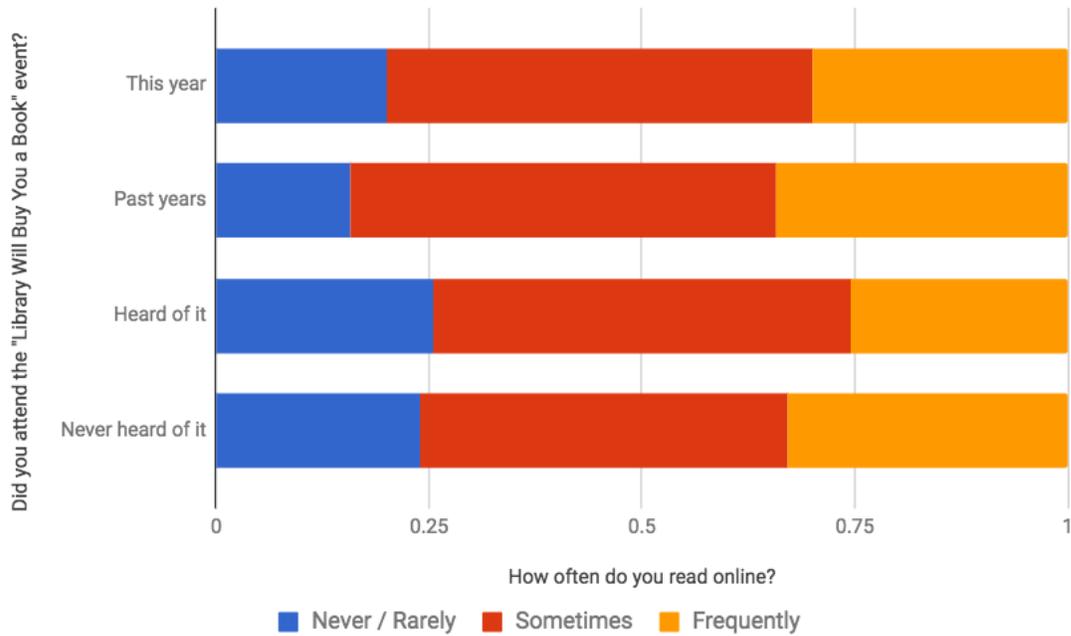
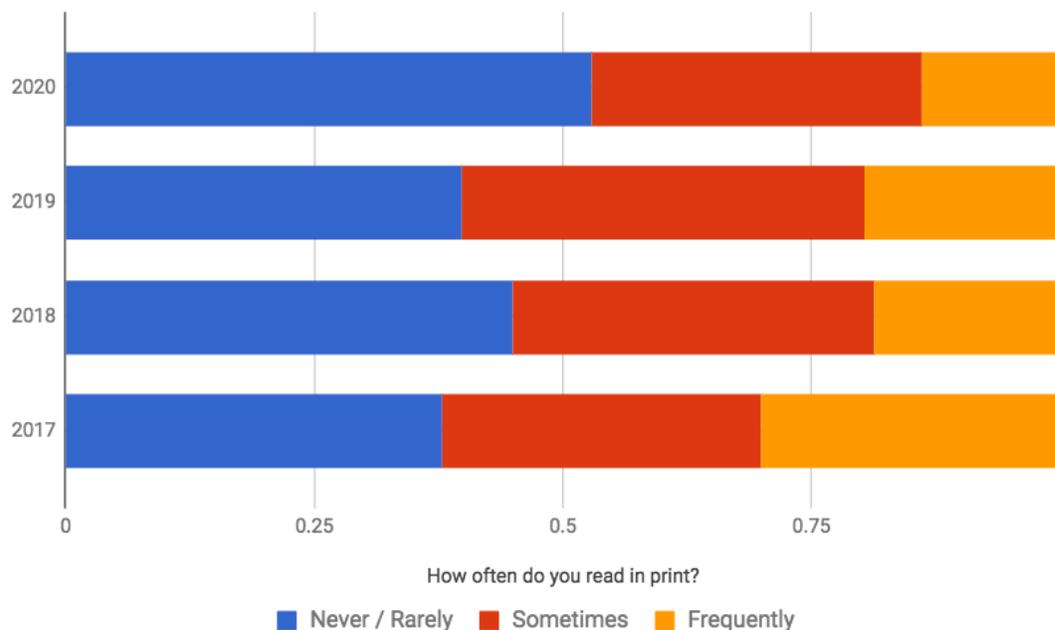


Chart 6: Online Reading by Class Year



This is a happy set of charts, but I want to caution all of us—and most of all myself—against reading too much into it. For one thing, there may be structural reasons why students read more in print as they move up in their classes: this survey was conducted in the late spring, at a time when most Seniors have more free time to commit to self-directed reading. For another, this is a snapshot of single year: I do not yet have longitudinal data to show the impact on a single cohort of students. Likewise, while there appears to be a correlation between reading print and taking part in the “Library Will Buy You a Book Day” there is nothing in the data that suggests that taking part is in itself producing an interest in reading more print. Indeed, the obvious assumption would be that students who like to read will read more in print and will want to take advantage of a deal where the library “buys” you a print book of your choice. So what’s the bottom line? I certainly cannot prove that “The Library Will Buy You a Book Day” convinces non-readers to pick up a book and begin a lifetime love affair with reading. What I can tell you is that it hits all the right buttons to make such an outcome possible: it puts Reader’s Advisory right at the point of purchase, it encourages a sense of ownership of reading, it draws attention to the broader community of readers (including adults), it celebrates reading as a source of enjoyment—it even promotes a local, independent bookstore! And we achieve all this at the cost of a few hours of staff time and a couple of thousand dollars a year, which we would have spent on books anyways—books that, the data suggest, would have circulated less frequently. So, perhaps you are considering: is this a model I can adapt for my library? Is there another way I could reduce the distance between readers (and non-readers) in my community and the books they might be interested in reading? Let me know what you come up with—I would love to hear from you and I’m happy to lend a hand in any way I can.

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Appendix A

Hotchkiss Reading Survey

1. Please indicate the amount of time you spend each week on recreational reading (not required for classes) when school is in session.
 - Less Than 1 Hour
 - 1-2 Hours
 - 3-5 Hours
 - 6-10 Hours
 - More than 10 Hours
2. Please indicate the amount of time you spend each week on recreational reading (not required for classes) during vacations.
 - Less Than 1 Hour
 - 1-2 Hours
 - 3-5 Hours
 - 6-10 Hours
 - More than 10 Hours
3. If you had more free time, would you read more?
 - Yes
 - No

4. Please indicate how often you read the following.

	Never / Rarely	Sometimes	Frequently
Newspapers (Print)			
Newspapers (Online)			
Magazines (Print)			
Magazines (Online)			
Comics/Graphic Novels			
Novels			
Poetry			
Non-Fiction Books			
Email			
Snapchat/Instagram/Facebook			
Other Internet Sites			

5. Did you participate in the "Library Will Buy You a Book" Holiday event at Oblong Books in Millerton?
 - Yes, this year
 - Yes, but not this year
 - No, but I've heard of it
 - No, never heard about it before now
6. What class are you in at Hotchkiss?
 - Class of 2017
 - Class of 2018
 - Class of 2019
 - Class of 2020

Professional Development via Facebook Group: Perception of School Librarians

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ABSTRACT

Facebook offers the ability to its users to create a group on a specific subject or interest and ask friends and acquaintances to join and share information which is entirely driven by them. This study seeks to explore whether and how Facebook group adds value to the complex process of school librarians' professional development. The successive objectives are to understand the current and future professional learning trends in school librarianship through Facebook group posts. An online questionnaire was posted to selected Facebook groups and sent to two school librarians' listservs, and 404 usable responses were received. Study findings indicate that with the Facebook group, School Library Professionals (SLPs) are able to stay informed with new knowledge in their field by exchanging information, opportunities and ideas. The findings also confirm that more and more SLPs are using, or at the very least, experiencing Facebook groups as a Professional Development Tool (PDT). Study data shows that 78.4 percent of SLPs desire to see posts related to 'teaching resources' and 63.8 percent 'how to use technology' on the Facebook group and are also indicative of the current professional learning trends of SLPs. Research skills tips (67.9%), makerspace ideas (57%) and how to collaborate with classroom teachers (51.6%) are found to be the top future professional learning aspirations of SLPs. This paper provides valid empirical evidence and highlights that many SLPs are using Facebook groups and 38.4 percent regarded it as a 'very useful tool' for professional development. The discussions that take place on Facebook groups empower and enhance librarians' professional practice and networking.

Keywords: School Librarian, Facebook Group, Social Media, Professional Development, Librarianship

INTRODUCTION

Professional development (PD) is considered to be the primary mechanism of continuous learning and improvement of skills of an employee over time. According to ACRL (2000) "professional development is an important manifestation of the academic librarian's commitment to personal excellence". Today, the Internet offers librarians vast opportunities in diverse areas through social media which enables interaction among librarians worldwide for personalized learning and PD. Social media such as Facebook is increasingly embedded in many areas of life as a powerful platform for discussion, entertainment, communication, news, advertisement and professional development. More and more people use Facebook because of its customizable features for those things people want to see. Just half a decade ago, people look at Facebook as a more personable network, where one could share stories, pictures, and posts with friends and family. In recent years, however, there has been a sea-change in approaches.

Today's Facebook encompasses a range of tools, formats, and contexts for its platform is seen by many as a Learning Management System (LMS) and informal yet effective medium for PD or at least for professional networking (Wang et al., 2012; Manca and Ranieri, 2013 and Ballantyne, Lowe & Beddoe, 2017). There is plenty of PD information being shared by individuals and organizations on Facebook where both larger and smaller groups of people gather, discuss common concerns, initiate informal learning environments designed and entirely driven by them (Wassen, 2016).

The remarkable development and popularity of Facebook-based interactions have affected school library professionals too, who often feel professionally isolated but now utilize different aspects of Facebook such as Facebook page and Facebook group to fulfill a variety of objectives from library marketing and outreach to professional development and networking. According to ACRL (2000), librarians should aggressively seek opportunities to learn from a variety of sources in related professions and in professions that have not traditionally been associated with libraries". In this case, Facebook group is considered as a very useful PDT as it has boundless opportunities for members and followers to learn while also contributing to the knowledge of others across their online communities (Curtis, 2011).

Lately, Facebook group is considered an educational tool and Chen (2014) claims that Facebook group can even be used as a Learning Management System (LMS) substitute or as a supplemental tool. Members and followers of Facebook groups are, therefore, exposed to an ever greater variety of viewpoints and ways of looking at the world. Since the tools are already available and mostly free, and librarians are encouraged to leverage these tools for their PD and networking in the technological age with the only investment of time.

STATEMENT OF THE PROBLEM

Since 2006, social media has steadily gained acceptance among libraries and librarians for professional reasons (Graham et al., 2009 and Hendrix et al., 2009). As librarians' practice advance within the framework of community, social media moves from a one-dimensional online broadcast platform to a multidimensional, socially-connected space that creates value for both the library and library professionals (Young and Rossman, 2015). In an ever-changing world where skills often become outdated, there is a need for re-learning in order to cope with new challenges. As Onuoha (2013) stated, like other professionals, librarians develop themselves professionally through conferences, seminars, workshops etc.

The use of social media, mainly Facebook by libraries and librarians to engage with patrons and PD, has gained tremendous attention (Hagman & Caletton, 2014; Ramsay & Vecchione, 2014). Most recent discussions by Simons et al. (2016), Onuoha (2013) and Kukreja et al. (2011) about social media for PD focus on Facebook rather than other on social media platforms, but little is known about how library professionals actually learn using Facebook page and Facebook group in a PD context (Simons et al., 2016).

Though, library professionals may not all settle on social media being useful for professional purposes, a few studies were conducted to report on Facebook adoption and librarians' perception of this new tool (Charnigo and Barnett-Ellis, 2007). Regardless of the potential challenges, Facebook group may provide an excellent opportunity for librarians to increase communication regarding professional practice issues but to what extent do librarians avail themselves of these Facebook applications remains unknown (Onuoha, 2013) due to limited published data.

OBJECTIVE OF THE STUDY

Facebook group offered librarians different possibilities and studies indicate that a both wider and deeper understanding of the role of Facebook and Facebook group in librarianship is necessary in order to determine its effect as an informal PDT (Ayu & Abrizah, 2011 and Vassilakaki & Garoufallou, 2015). To date, little empirical research on the professional use of Facebook group has been conducted, particularly with reference of SLPs on the Facebook group. The present study was formulated to define school librarians' use of Facebook namely Facebook groups as a PDT in a global context. It is expected that the results from this study will be a pioneer upon which prospective studies may be anchored.

To achieve this objective, along with exploring the broad nature of the Facebook group, this study addresses the following key questions:

1. What role Facebook group plays as a PDT and to what extent?
2. What are the challenges in following the Facebook group?
3. What are the current and future PD aspirations of SLPs?

REVIEW OF RESOURCES

Social media such as Facebook provides greater control in communication and collaboration over both the degree of privacy and size of a group when compared with previous forms of communications media. Cultural institutions such as libraries, community learning centers, archives and museums are increasingly using various forms of social media tools not just to promote their services, but to engage their professional communities through outreach wherever they are based, and however they choose to learn (Hossain, 2016; McCallum, 2014). Social media, therefore, has been changing the way organizations and individuals view their personal lives and their professions.

According to Meyrowitz (1997), individuals no longer required to travel and "be" in a physical location to collect information or participate in discussions nor have to be excluded themselves from the events they cannot physically present. Online social media develops the flow of information hence individuals in virtual networks gain information about opportunities and choices that otherwise would not be available to them (Lin, 2002). This has been made possible through different forms of social media that enable interaction in virtual space without the constraints of time and location.

Similarly, there are reports of studies related to the use of social media or social networking sites by librarian and libraries. Chu and Du (2013) and McCallum (2014) for example investigated the use of social networking tools in academic libraries, librarians perceptions, usefulness and challenges, and factors influencing decisions to use or not to use such social media tools. Dickson and Holley (2010) delved into the use of the major social networking tools in academic libraries in the United States and found that social networking can be an effective method of community outreach in academic libraries. Based on the findings of Onuoha's (2013) study, librarians in Nigeria actively seek means of PD using social media and recommends, among others, the active use of social media tools to contribute to professional learning and professional development. Simons et al. (2016) even go further in suggesting developing coursework and teaching social media practice in library science programs: MLIS and MSIS.

As social media has grown and become part of almost every aspect of our lives, the use of it for professional development is not a modern day phenomenon (Onuoha, 2013) only the demand on time due to the advancement of technology, popularity and user-friendly platforms. Facebook, for example, is not only used for social connections around the world but also for PD and so much of the academic work on this topic has become integrated into different disciplines (Vassilakaki and Garoufallou, 2015).

Gruber (2008) states that as a result of using Facebook, librarians most likely increase their expertise and gain advice on issues that arise in their professional work and are updated on what is going to be the next set of essential skills for their profession. Majid's (2004) statement echoes Gruber's (2008) rationale that the purpose of continuing professional development activities is to fill in the knowledge gaps between formal education and the needs of the professional practice.

Many studies such as Breeding (2007) listed the reasons that Facebook could be important to libraries. Ranieri, Manca and Fini (2012) explored the professional use of Facebook and its implications for lifelong learning and the way educators engage in it. Facebook was also recommended as a way for librarians to share information (Mathews, 2006) and to learn about new developments (Parveen, 2011). In addition, Roncaglia (2007) stressed the educational aspects of Facebook for exchanging information, especially for school libraries.

Results from a Karal and colleagues (2015) study indicate that Facebook groups create a flexible online community with interactive and reflective activities, and are an effective tool for sharing ideas, and for communication and cooperation amongst group members. Survey findings by Ballantyne, Lowe & Beddoe (2017) concluded that participants highly valued Facebook group for its ability to post and share information, and to access professional news within communities of practice. These examples demonstrate that library professionals appear to consider it useful to use Facebook group and are, at the very least, experimenting with it for professional development and networking.

Vassilakaki and Garoufallou (2015) went further providing the baseline for creating a series of best practices for librarians' use of Facebook group for professional purposes successfully. Most people may prefer Facebook groups to Facebook pages as McKenzie (2016) said groups are more interactive and

can have a proper conversation, where every member can post, which means much more diversity and less work for the moderators in what is posted. Some groups are closed, and some are open depending on how members feel about others' posts being accessible on the wider web and obviously, they need to consider which group is right for their intended purposes.

According to a claim by Emery (2008), librarians who follow professional groups and pages on Facebook are most likely to identify what their colleagues in other institutions are focusing on which can be localized more readily to their own work without reinventing the wheel. In other words, experiences can be shared at the local level that are gained from colleagues at an international level, which then feed into service development at a local level and vice-versa. Indeed, Oberg (2002) notes that without new experiences, we tend to stagnate and become brittle. Choi (2012) goes further and urged libraries and librarians to be prepared for the social media librarian.

Emery (2008) and Choi's (2012) statements are justified by McCallum (2014) findings that over 70% of libraries are using social media tools, and 60% have had a social media account for three years or longer and 30% of librarians are posting at least daily. Findings from Onuoha's (2013) study revealed that online social networks such as Facebook and Wikis were mostly used for PD where librarians learn mostly by reading through the conversations of others and joining discussion groups. However, professional competencies today may not be so essential or useful tomorrow, hence a need for professional learning throughout. Holmes (2012) argued that as many professionals still feel highly uncertain about their work skills, and so social media such as Facebook group would be an interesting yet effective professional learning and networking venue for both experienced and inexperienced professionals.

METHODOLOGY

This study embraces a descriptive approach mainly because it was an exploratory study and no local or international studies could be traced on the topic. The population for this study was school library professionals worldwide.

There are literally hundreds of Facebook groups that focus on librarianship in general of which some exclusively concentrate on school librarianship. The researcher, from his own understanding, listed 10 exclusive Facebook groups (see chart 5) with an extra option, that is 'Other' to understand the scenario of popular Facebook groups participating by SLPs. Within the 10 Facebook groups, only ALA Think Tank is considered a general group. Nearly at the end of the survey, the researcher came to learn of another popular Facebook group namely 'Future Ready Librarians' and added that to the list. Selections were made from a number of followers/members, likes, posts, comments in a Facebook group. The survey instrument was developed based on the research questions using the researcher's own knowledge titled "Role of Facebook Group in School Librarians' Professional Development" using Google Form. The instrument was pretested on five SLPs and changes were made based on their comments and suggestions.

The actual questionnaire link posted on selected Facebook groups and the listservs in early August 2016 and several follow-up posts were posted. The responses were automatically recorded and tabulated on Google Form and analyzed. Some respondents did not answer all questions, and the missing responses are reflected in the varying sample size (*n*) values in the findings below.

RESULTS

Background of Respondents

A total of 404 responses were received of which 366 (91.7%) identified as females, 29 (7.3%) males and 4 (1%) participants preferred not to disclose their gender. The age group of 'more than 50 years' had the highest number of respondents (36.7%), following the age group of '46-50 years' (18.9%) while the age group of '21-25 years' or younger had the least number of respondents (1.7%). Data from this study confirmed that school libraries are overwhelmingly dominated by female library professionals and a good number of them are over 50 years old. These results are attested by the earlier finding by

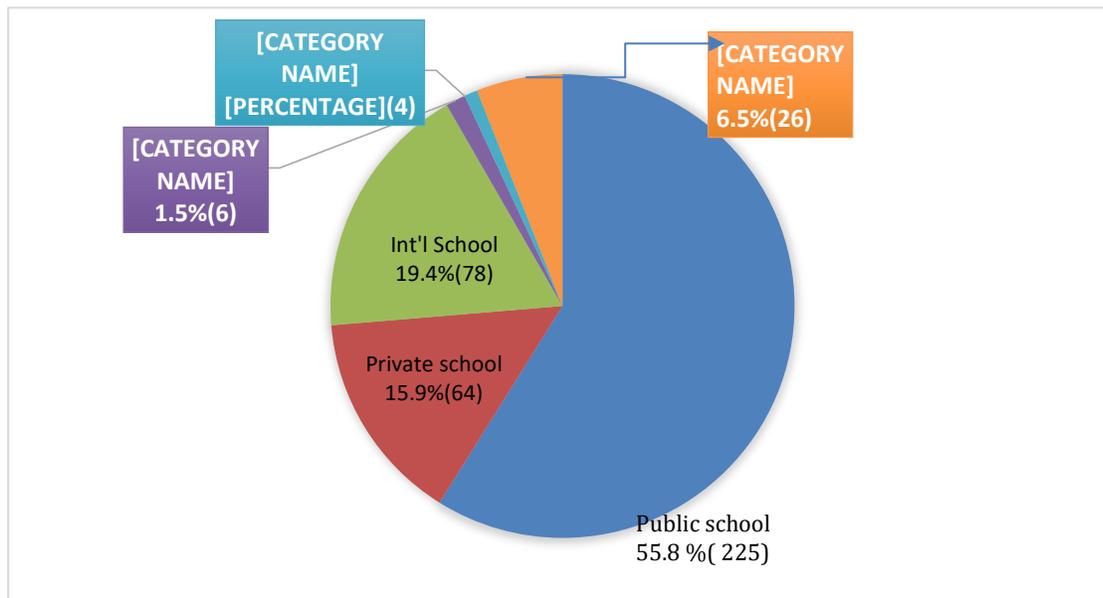
Beveridge and colleagues (2011) that the current makeup of the library profession in the US is 83% female where 64 percent of them 45 years or older.

The respondents' demographic information also revealed the respondents' years of working experience in librarianship. Their length of service as a school library professional was 25.6% 'more than 5 years', 18.9% 'more than 10 years', 19.2% 'more than 20 years' and 14.2% 'more than 15 years' and 'less than 3 years'.

In terms of qualifications, 68.7% have a master's degree, 14.9% have a bachelor's degree and 3.7% holds a Ph.D. degree. 81.4% indicated they have the degree in Library and Information Science (LIS) or related discipline and 13.4%, however, indicated that their highest academic qualification was in other disciplines and 5.2% mentioned they are currently enrolled in an MLIS program.

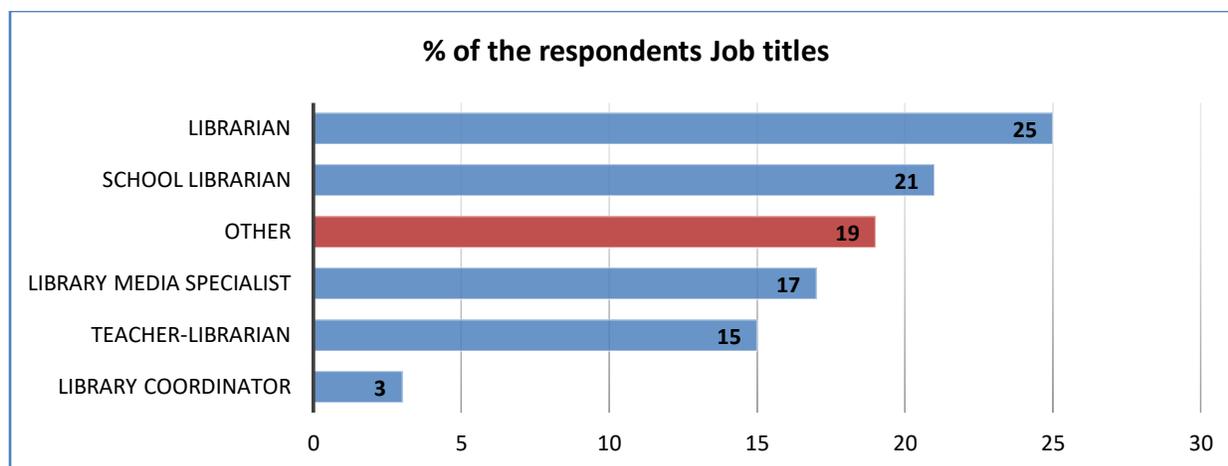
The majority of the respondents are working for public (55.8%) libraries followed by international and private school libraries in 57 different countries (n=401) with the highest number of participants from the USA (60%), followed by Australia (8%), Indonesia (6%) and Vietnam (5%). Chart 1 shows the distribution of the respondents' work sectors. Individual data analysis shows that 23% of survey participants recorded their working places in 53 different countries which covered all major geographic regions throughout the world.

Chart 1: Respondents' work sectors (n=403).



Participants' job titles are very versatile from place to place within and outside of a country or region. Further data analysis revealed that respondents mentioned 23 different job titles where most of the participants use the titles' Librarian (25%) followed by School Librarian (21%) adding ranges of prefixes such as Elementary, Middle, High/Secondary, Senior/Junior School Librarian etc. 5% of respondents were professor, lecturer, library consultant and researcher whereas 14% (54) participants mentioned different job titles other than listed in chart 2. In-depth data analysis confirmed that SLPs in the USA widely use School Library Media Specialist as their job titles whereas SLPs in Australia and in international schools use Teacher-Librarian as their job titles with some dissimilarities.

Chart 2: Top five job titles of SLPs worldwide (n=370)



Summary of Findings

Study findings indicate that a vast majority (89.1%) of SLPs use social media such as Facebook (73.6%), Twitter (51.1%), Blogs (43.4%) and Pinterest (33.7%) for their continuous professional development (CPD). This study also revealed that 53.8% of respondent SLPs have been using Facebook for more than seven years, 47.5% follow one to three professional groups and 54.9% spend one to two hours per week for PD on Facebook. A number of SLP respondents (38.4%) rated Facebook groups as a ‘very useful tool’ to develop their professional learning and 40.2% regarded it as a platform that empowers and enhances their professional practice and networking.

Despite the growing popularity of Facebook and Facebook groups across multiple disciplines, study analysis shows that 12.2% of SLP survey participants were not willing to use these venues in professional practice. The main challenges they face are the lack of time (56.2%) and the overwhelming number of posts (43.8%) to read and explore.

However, the present study result implies that more and more SLPs are using, or at the very least, experiencing Facebook and Facebook groups as a PDT in comparison to earlier studies. For example, a 2015 study by McKenzie (2015) found that 97% of respondents ($n=78$) school librarians used Facebook and other social media only for personal use which was far more than the current study. Roughly three-quarters (78.4%) of survey participants prefer to see the posts related to teaching resources, 63.8% and 63.2% desire to see ‘how to use technology’ and professional seminar and conference news respectively which imply the current professional learning trends of SLPs. Research skills tips and resources (67.9%), makerspace ideas (57%) and how to cooperate and collaborate with classroom teachers (51.6%) are found to be the top future professional learning aspirations of SLPs.

Overall, respondents’ feedback confirmed that with the Facebook group, school librarians are able to stay informed with new knowledge in their field. In terms of PD, it was indicated that Facebook group provide the opportunity for sharing knowledge, and serve as a source of educational and professional information, sharing common interests or affiliations, upload and stream live videos, hold discussions in forums, and allow professionals to exchange information, opportunities, and ideas. As a result of this, it was indicated they have the opportunity of creating a forum comprising like-minded librarians who share common interests and benefits. This is also in-line with the observation by Suraweere et al. (2011) that there are sites such as the Facebook group that help professionals to network and build relationships among themselves.

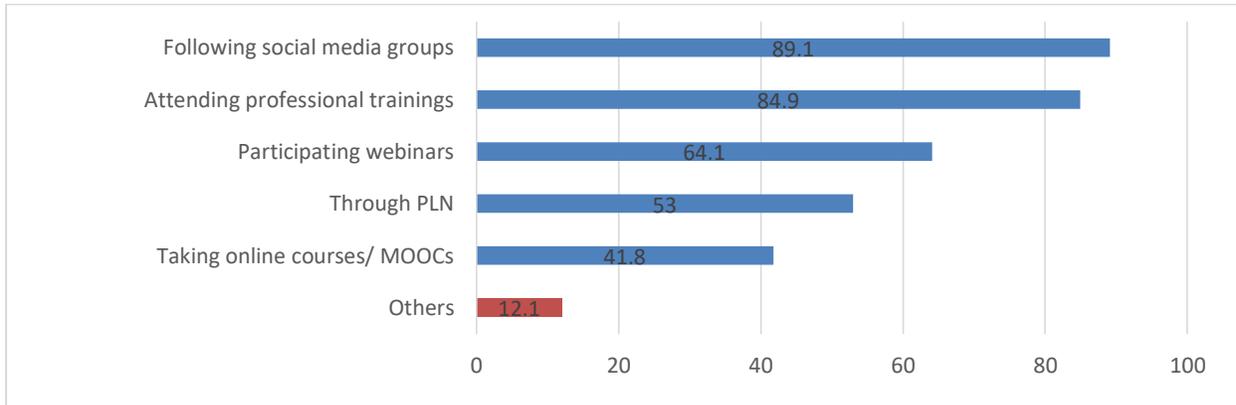
ANALYSIS AND DISCUSSION

Ways SLPs Keep Up To Date Professionally

Respondents’ data analysis explored in more detail how SLPs are kept up-to-date professionally. Not surprisingly a vast majority (89.1%) of the SLPs use ‘Social media groups’ to keep up-to-date professionally. Results show that attending professional conferences and training (84.9%) is equally

important as social media groups but participation in such are not always free. Free online webinars and Massive Open Online Courses or MOOCs (64.1%) are also becoming popular among SLPs in order to be professionally sound. Chart 3 lays out key methods of SLPs' ways to stay abreast professionally.

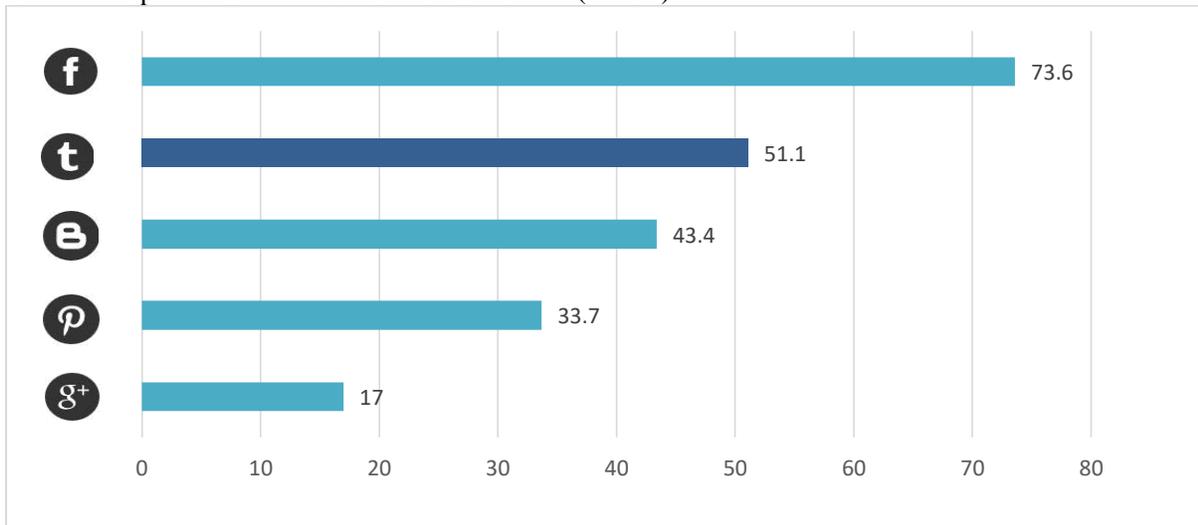
Chart 3: Top Five ways School Librarians keep up-to-date professionally (n=404)



Top Five Social Media SLPs Use for PD

When asked what social media platforms participants prefer for PD, the majority of SLPs replied Facebook (73.6%) followed by Twitter (51.1%) and Blogs (43.3%). Graph 2 illustrates SLPs' preferred social media platforms for PD.

Chart 4: Top Five social media SLPs use for PD (n=401)



This study's findings are harmonious with the reports of Simon (2016), and Chu and Du (2012) who reported that Facebook and Twitter were the most commonly adopted social media platforms by academic libraries and librarians for professional development and networking.

SLPs Familiarity with Facebook

Among the 403 respondents, 53.8% SLPs has been using Facebook for more than 7 years and shockingly 12.2% aren't using Facebook let alone Facebook group. Table 1 shows the detailed scenario.

Table 1: SLPs familiarity with Facebook

Years of familiarity with Facebook	n=403	%
1--2	25	6.2
3--4	44	10.9
5--6	68	16.9
More than 7	217	53.8
I don't use Facebook	49	12.2

Number of Facebook Group (S) SLPs Follow/Members

Results show that most of the respondents follow more than one professional Facebook group and surprisingly 8.6% said they have been members/followers of more than 10 professional Facebook groups, depicted in table 2.

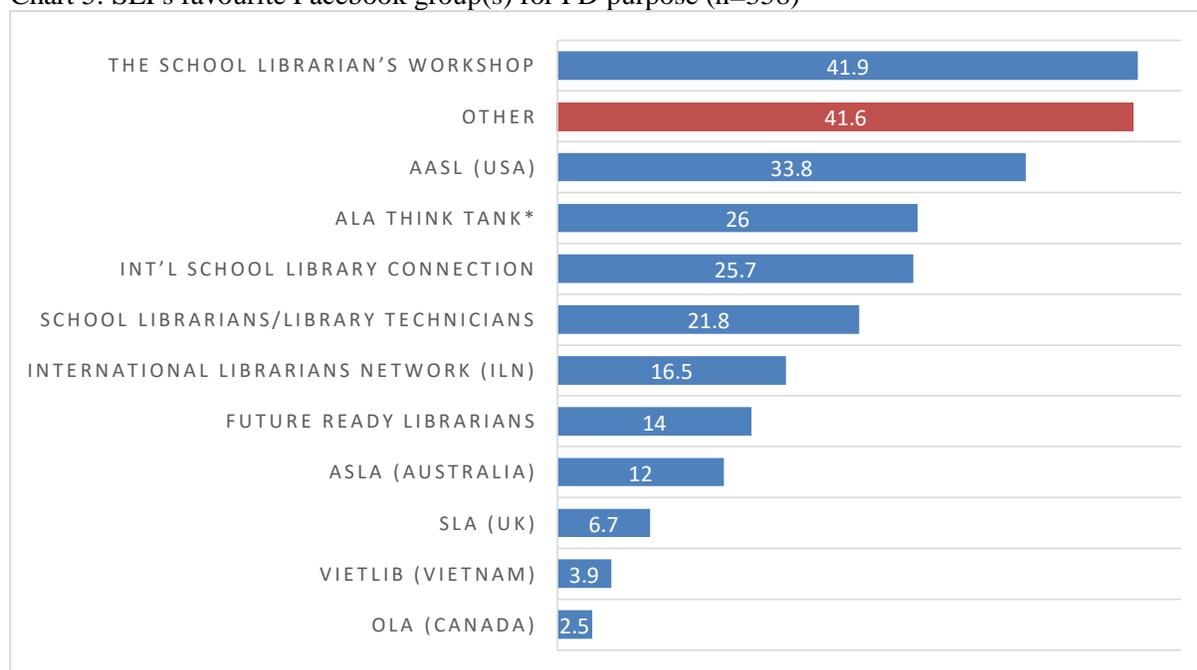
Table 2: Number of professional Facebook group(s) participants follow on Facebook

Number of Facebook group(s)	n=360	%
1--3	171	47.5
4--6	128	35.6
7--9	30	8.3
More than 10	31	8.6

SLPs Favourite Facebook group(s) for Professional Development

To explore SLPs preferred Facebook group(s), a list of group names were given and remarkably, 46.2% - the highest number of respondents selected 'other' meaning they follow the groups that do not fall within the listed groups shown in Chart 5. The results also confirmed that there are many other Facebook groups that SLPs are using as their informal PDT.

Chart 5: SLPs favourite Facebook group(s) for PD purpose (n=358)



Frequency of Facebook (n=348) and Facebook groups (n=357) usage by SLPs

A resounding 185 (50.4) out of the 367 respondents indicated that they use Facebook several times a day. Regarding Facebook groups' usage, 12% of respondents use it 'more than once a day' and 29.1% use it 'at least once a day' for professional development purposes. Table 3 shows the frequency of Facebook and Facebook group usage by the survey participants.

Table 3: Frequency of Facebook and Facebook group usage by SLPs

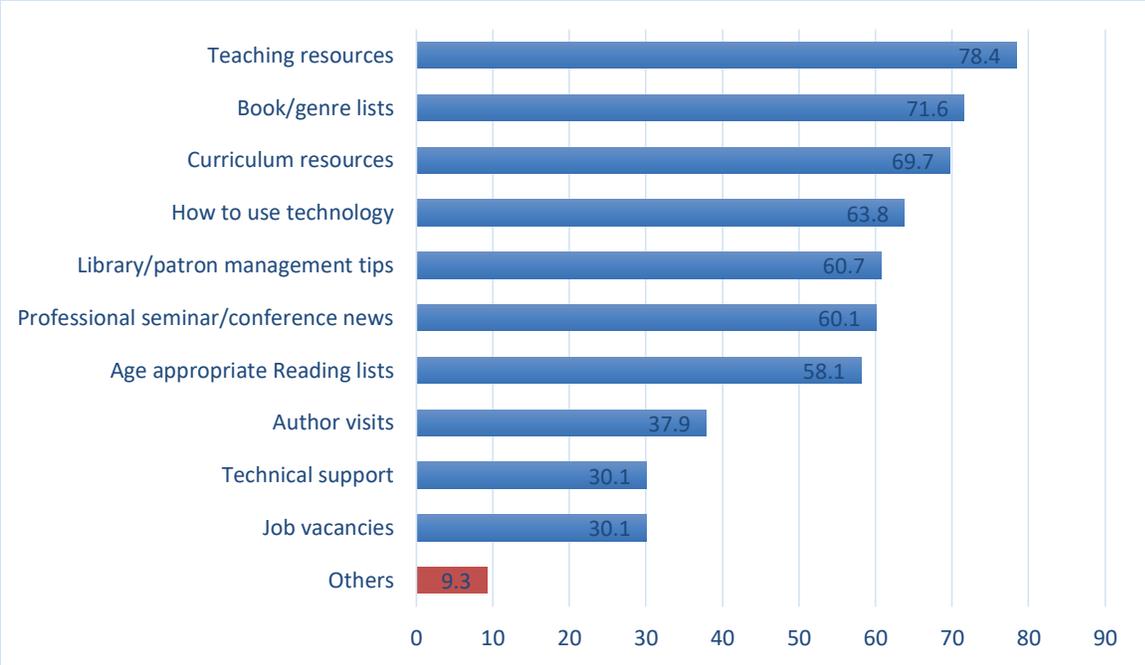
Frequency	% of Facebook usage	% of Facebook group(s) usage
More than once a day	50.4	12
At least once a day	31.9	29.1
2-3 times a week	7.9	24.4
At least once a week	--	10.4
Every few weeks	4.9	09
24/7 (always login)/Whenever a post appeared	4.9	15.2

Further analysis shows that in a typical week, 54.9% respondent SLPs spent one to two and 11.5% spent three to four hours respectively on Facebook group(s) for PD purposes. A number of the respondents (29.9%) indicate that they are frequent viewers meaning that they view each post after it appears on their feeds. Respondents who reported using Facebook multiple times a day were more likely to use it for professional purposes than personal ones. These results also indicate that SLPs are using Facebook groups on a daily basis and partially on a weekly basis.

What SLPs Prefer To See On Facebook Group(S) They Follow (n=356)?

Roughly three-quarters (78.4%) of the survey participants shared they prefer to see the posts related to 'teaching resources' following 'book/genre lists and recommendations' (71.5%) for specific age and user groups portrayed on chart 6. Interestingly, 31.1% of respondents desire to see related 'job vacancies' on Facebook groups they follow. All these preferences clearly imply the current professional development trends of SLPs.

Chart 6: SLPs desired posts on the Facebook group(s) of which they are members or followers.



To Which Posts Are SLPs Most Likely To Respond E.G. Like/Comment/Share (n=362)?

Participants were asked if they were to read a group of Facebook posts, which topics would they most likely respond to, that is like, comment or share. Table 4 demonstrates the scenario.

Table 4: Popular posts to SLPs

Posts	n=362	%
Job posts	36	09.9
Incredible works by other librarians	260	71.8
Advocacy by other librarians	209	57.7
Reading list	155	42.8
Book/genre list	170	47
New technology	195	53.9
Useful apps	206	56.9
Library software technical support	72	19.9
Teaching resources	239	66
Library/patron management tips	142	39.2
Author visits	73	20.2

Comfortability of Like, Comment or Share a Post on the Facebook Group (n=362)

40.6 percent of survey participants agreed that being a member of a Facebook group they feel very comfortable to like, comment or share posts on their Facebook groups. Table 5 illustrates their comfortability on a Likert scale of 1-5 where 1 is 'very comfortable' and 5 is 'very uncomfortable'.

Table 5: Comfortability of like, comment or share a Facebook group post

Feelings	n=362	%
Very comfortable: 1	147	40.6
2	105	29
3	88	24.3
4	16	4.4
Very uncomfortable: 5	6	1.7

Facebook Group as a Professional Development Platform (n=365)

Not surprisingly many SLPs (29%) rated Facebook group as an 'Excellent' tool for professional development or networking. Table 6 identified respondents rating of Facebook groups as a professional learning tool on a Likert Scale of 'Excellent' to 'Very poor'.

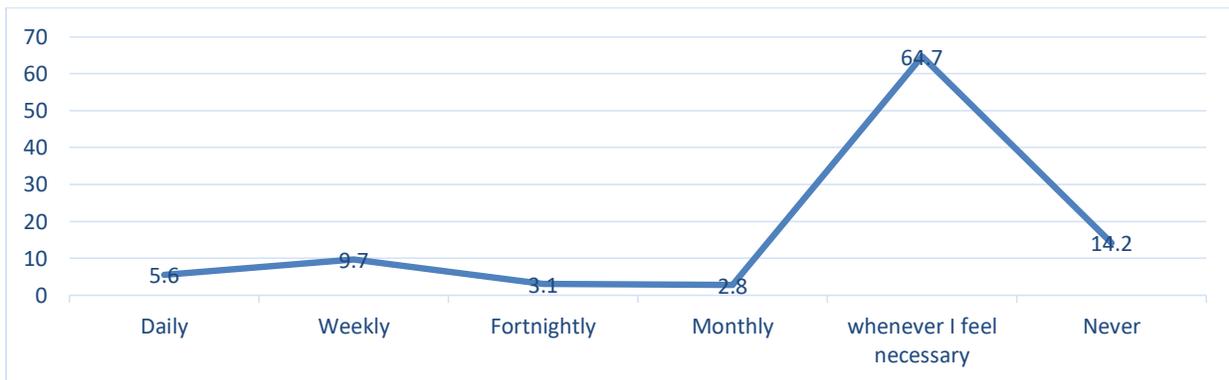
Table 6: Facebook group as professional development platform rated by SLPs

Effectiveness	n=365	%
Excellent : 1	106	29
2	140	38.4
3	84	23
4	22	6
Very poor: 5	13	6.3

Frequency of Post on a Facebook Group (n=360)

64.7% of respondents shared that they post on their Facebook group(s) whenever they feel it necessary while 14.2% never post on the group(s) they followed. Graph 1 shows respondents' frequency of post(s) on the Facebook group of which they are a member or follower.

Graph 1: Frequency of Facebook group post(s) as a member or follower



Benefits of Being a Facebook Group Member or Follower (n=206)

To determine the importance of becoming a member or a follower of a Facebook group and the benefits SLPs derived from making use of it, participants were asked to share their personal thoughts (in written form) on the benefits of participating in a professional Facebook group. Respondents listed the benefits include the ease with which to share ideas, the discovery of library values, access to like-minded professionals who offer support and collegiality that may not be available in face-to-face working environments. On the use for personal development, the respondents indicated that they have the opportunity to connect with people across the globe including those that have never seen and which they are not sure of coming in contact with face to face.

Selected SLPs Voices

- ❖ Facebook is an easy platform to use - no formal letter writing, just sharing.

Being able to get timely info and feedback from engaged educators.

- ❖ Keeping trend of what is going on. Helping others too and getting advices. All of them are very helpful.

Connections with peers, sharing ideas and knowledge

- ❖ It is a flexible arrangement, so I can get PD on-demand and request information from other library professionals in real time.

Any time I can learn something new, it is a benefit to my students/staff. I'm always looking for innovative ways to do things that will increase ethical use of technology, reading, and technology use in general.

- ❖ Easy access to like-minded professionals who offer support and collegiality that may not be available in face to face working environments. Many librarians work alone or are the only librarians in their school districts.

There aren't many local school librarians, so it provides a better professional community.

- ❖ Keeping one abreast of current development in the field of librarianship

It's instant, you can read it at a time convenient to you, it's current' you can get others' views quickly

- ❖ Making connections with school librarians throughout the world. Getting to know what their school libraries are like and how they operate. Supporting school librarianship in developing countries

Mixes work and pleasure, reliable format, allows for multi media to be shared easily

- ❖ I don't really like using facebook for professional things. I would much prefer to keep the two separate. I see my personal life and my life as a librarian as two different things and I really don't like mixing the two. But I am realising that I am in a minority with this opinion, and so I am trying to embrace it and have started subscribing to professional facebook groups. I still don't like it though and very rarely post anything!

Save time and money. Increase sharing ideas and news

- ❖ Access to the knowledge and ideas of others in the same role. I do not have a partner in my building.

You do not have to go separately to each one to check the posts. You can have everything on one spot.

- ❖ Learn from a diverse and knowledgeable group. Get perspectives from a multi-cultural group.

You get to hear from people all over the world and in diverse school settings.

- ❖ I feel like I connect with a more diverse group of people and that helps expand my ideas and way of thinking.

For schools like mine that have no or limited budgets, it's an alternative to workshops and classes that the school/employees can't afford to attend

- ❖ Good audience reach, fast responses possible, diverse users

Many of the people there are very passionate about their practice, and want to learn and share.

- ❖ I like the variety of answers from all over and the fact that I can get quick answers when I post something.

We have a solitary profession. We can be very isolated if we don't share with each other.

- ❖ It's an easy and efficient way to share information. Most people have FB accounts so it's widely accessible to most librarians.

It's current, you can embed content easily, asynchronous - so you can scan if you need to, you can tag your posts.

- ❖ Open forums, similar interests, growing your professional community, learning about educational trends in other states, bridging the gap between school and public librarians.

Working as a school librarian, you are usually the only one in your building. With Facebook, I have a huge group of librarians I can ask questions of, run ideas by, and learn from. I think it is a wonderful PLN.

- ❖ Having a bank of knowledge to go to for new ideas. Being able to read other postings and utilize that info at a later date.

Immediate Feedback, doesn't clog up my email, can check it when I have time, can block annoying users.

- ❖ Easy to network with overseas TL's; great sources of upcoming PD; easy platform to share photos/videos/information with colleagues and create a discussion.

It's a great source of inspiration and can help with advocating for changes in your school; and many other things!

- ❖ Sharing ideas, and seeing how other situations compare to mine

Partnering with and learning from other librarians is the best professional development out there.

- ❖ International perspective, crowdsourcing, motivational inspiration

It allows you to voice your opinion and share ideas.

- ❖ I have to say that I am enjoying this Facebook group so much. As librarians, we often work in isolation, and are not fully appreciated by our administrators. My district terminated the library department coordinator 3 years ago, and we are now overseen by the director of technology and communications. Thank you for providing this valuable resource to all of us.

Challenges of Following Facebook Group(s) (n=363)?

Despite the tremendous popularity of Facebook and Facebook group, 12.2% of SLPs acknowledged that they do not use these venues for PD but rather for personal and family purposes. There were many varied reasons that some SLPs are not using the Facebook group as a PDT. This study reveals the main challenges of participating in a Facebook group as the lack of time (56.2%) and the overwhelming number of posts (43.8%) to read and explore. These challenges are not considered as obstacles or have very little effect on their participation in a Facebook group according to the majority of SLP respondents (61%). Additionally, many practice sites have blocked employee access to social networking sites in an effort to prevent loss of productivity (Kukreja et al., 2011). This suggests that schools are still not willing to acknowledge this form of communication and CPD tool as legitimate, or they are fearful or they simply do not know how to manage it.

CONCLUSIONS AND RECOMMENDATIONS

Professional development is an essential activity for librarians of all types in their very practice-based field. Facebook group affords a platform that is free of charge for a diverse range of communities of practice and the time for librarians' CPD. Within the plethora of Facebook groups, thousands of SLPs create hundreds of discussion posts that address the spectrum of teaching and library management issues. Consequently, it is apparent that Facebook group is more than a social networking site, but a powerful medium for SLPs that can be utilized to enhance professional knowledge, teaching and research practice. The study might serve as a guidepost of present scenarios of school librarianship and the current and future professional learning trends in the school library profession. Future research on Facebook group focused on regional or country specific SLPs may provide clear and further understanding and the potentiality of Facebook group for professional development. Particular Facebook group posts, likes, comments and shares analysis would also be highly rational to learn the current and future trends in school librarianship. The author looks forward to extending his own understanding, networks and potential future collaborations of Facebook group.

The challenges associated with using the Facebook group for professional purposes can be overcome with a developed understanding of the tool and reference to professional guidelines. It is important to many professionals to maintain a professional distance from personal life so that they feel comfortable confiding in them and knowing that their information stays within context. In this case, Facebook group is worth considering to those who want or need to use social media for professional and personal situations as it differentiates among levels of access for friends, colleagues, and students through few privacy steps. Until the education community comes up with a formal means of professional development that is free, user-friendly, and timely, Facebook groups and similar forms of social media tools should be seen as an effective supplement to traditional professional development tools.

Consequently, creating specific user groups such as Elementary/Middle/High School Librarians/Teacher-Librarians/Media Specialist Facebook groups may develop strong and focused virtual informal professional development. Further, instead of dissuading librarians from joining Facebook and blocking access to similar social media sites, school administrators, and LIS associations and organizations should encourage and even support librarians' participation in these informative, efficient, and affordable professional development opportunities.

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Creating, Completing and Critiquing Our First MOOC

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ABSTRACT

MOOCs allow anyone, anywhere, to access high quality learning materials via online platforms. With a rise in online learning, and a growing recognition of how this can support continuing professional development in the education sector, in 2016, the GDST (The Girls' Day School Trust) became the first non-university education organisation in the UK to partner with the MOOC platform [FutureLearn](#) and launched its first course. This research paper outlines the history of MOOCs, how the GDST MOOC fits into this landscape, and how and why we created it. This paper will then go on to explore the challenges and opportunities of running an online course, before looking at how we are evaluating the first-run using qualitative and quantitative data.

Keywords: MOOC, Online Learning, Girl-Friendly Pedagogies, Continuing Professional Development, Teaching Strategies

INTRODUCTION

Creating MOOCs is a particularly appropriate topic for a conference with the theme 'learning without borders.' MOOCs allow anyone, anywhere, to access high quality learning materials via online platforms, and are an important tool in the democratisation of learning, and a way of exploiting our increasingly connected societies. With a rise in online learning, and a growing recognition of how this can support continuing professional development in the education sector, in 2016, the GDST partnered with FutureLearn and launched its first MOOC. In order to contextualise this discussion, readers may find it helpful to know about the two key organisations involved in this project. Firstly, the GDST (The Girls' Day School Trust) is a network of 24 all-through independent girls' schools and 2 academies throughout England and Wales. Secondly, FutureLearn, our MOOC partner, was founded by [The Open University](#) in 2012 and is a leading UK-based social learning platform, enabling online learning through conversation.

The aim of this paper is to contextualise the role MOOCs play in continuing professional development in the education sector, and more specifically, how the GDST's MOOC fits into this landscape. It also narrates our personal journey of creating a MOOC, offering practical insights and presents the findings of our evaluation of the first-run of our course. This MOOC ran for the first time from 21st November 2016 for four weeks and attracted over 8,000 joiners.

MAPPING THE MOOC LANDSCAPE

The term MOOC was coined by Dave Cormier of the University of Prince Edward Island in relation to a course called *Connectivism and Connective Knowledge*, which is widely regarded as the first true MOOC (Cormier, 2008). As this example illustrates, initially MOOCs provided online education in the areas of science and technology-based subjects, and were primarily aimed at Higher Education students, with universities writing content and running courses.

From 2008-2012, the format steadily grew in popularity and according to *The New York Times* 2012 was, 'the year of the MOOC', as top universities began to engage with the format and well-known providers such as [Coursera](#) and [edX](#) began to emerge (Pappona, 2012). This emergence of MOOCs coincided with a general growth in online learning and greater exploration of techniques such as blended learning, self-paced courses and flipped learning. This combination of interest in, enthusiasm for, and technical expertise with, digital learning, led to what Moody's predicted would be a 'pivotal development' and a 'significant image upgrade for online education' (Moody's Investor Service, 2012).

Recognising this hype and these high expectations for MOOCs, in June 2013, an article in CILIP's (Chartered Institute of Library and Information Professionals) *Update* magazine asked the

question, ‘Will Moocs change the world?’ (Steel, 2013). The motivation behind the article was the recognition that MOOCs were becoming an increasingly ‘important topic in academic circles’ and ‘growing in momentum in the UK.’ This article mirrors the then current day anxieties in the Higher Education sector, that was, that traditional university education could be ‘replaced’ by online learning environments, thus leading to major upheaval and radical educational change in the UK. Steel approaches the subject in a fairly ‘black and white’ way, an ‘either, or’ dichotomy being established between traditional university campus style learning and online learning. Her closing remark flies the flag for the university system as she concludes, ‘the benefits of a traditional university campus are too many to be dismissed’ (Steel, 2013, p.39). Since the writing of that article, traditional face-to-face learning continues to be championed in the UK Higher Education sector, but the first accredited MOOCs (announced in May 2016 in the UK) have heralded a new phase in online learning which further erodes strict boundaries between traditional and digital delivery of content (Weale, 2016).

Turning more specifically to look at the UK MOOC market, some of our leading universities have been hesitant to join the growing online learning community. It was not until the end of 2016, that Oxford University announced that it would launch its first MOOC on the American owned edX platform, with their first course running in February 2017. Despite being relatively late to offer MOOCs, their motivations for doing so echo those of early adopters, with those involved with the project recognising the course is an ‘effective way to expand access to knowledge beyond the classrooms of Oxford’, which will help people ‘understand how their community and country can flourish wherever they are in the world’ (Elmes, 2016).

It was into this diverse and flourishing landscape, that FutureLearn emerged in 2012. With over 6 million people from over 230 countries across the globe – a community that is continuously growing – FutureLearn offers free and paid for online courses from world-leading UK and international universities, as well as organisations such as the European Space Agency, the British Council and Cancer Research UK. FutureLearn’s course portfolio covers a wealth of areas to promote lifelong learning for a range of applications, including general interest, an introduction to university studies, continuing professional development and fully online postgraduate degrees.

But how does all of this translate when you look more particularly at MOOC use in the education sector and the secondary school market? At school level, there have long been evangelists and sceptics of online learning programmes and the perceived opportunities and challenges this brings. In the UK, schools continue to experiment with the ideas of flipped learning and blended learning, but as the assessment system is still largely a paper-based one, secondary schools in particular, can be hesitant to fully embrace online learning. When you add into the mix concerns over children’s screen time, pastoral concerns on issues such as cyberbullying and sexting, it becomes clear that the school sector still has some way to go to embrace the idea that a teacher should be more of a ‘guide on the side’ than a ‘sage on the stage.’

However, there are several local-level initiatives which encourage students, in particular sixth formers, to engage with MOOCs, especially as a way to prepare for university and broaden their knowledge of non A-level subjects. One of our GDST schools, Croydon High School, based in south-east London, launched a ‘Twilight School’ in 2015 where students were encouraged to participate in a MOOC which would broaden their understanding of a topic, or give them a ‘taster’ of a subject they wanted to study at university. These sorts of initiatives show the value that MOOCs can add to the traditional curriculum delivered through structured contact time, and that with the right support, can encourage students to be more independent, intellectually curious and academically diverse.

But what about for teachers? How far does the education community engage with online learning for professional development? Much teacher CPD is still delivered face-to-face in a series of INSET (IN-Service Training) days throughout the school year. However, this can be easily supplemented through online courses and less formal online CPD channels, such as through Twitter chats, support on forums, such as those on the TES (Times Educational Supplement) website and practitioner created videos on platforms such as YouTube. At the GDST, we offer webinars to support online CPD and provide access

to platforms such as [Lynda](#), an online subscription service which, offers thousands of video courses in software, creative, and business skills.

At a time of significant pressure on education funding and teacher time, it is unsurprising that both schools and providers are exploring options to deliver cost-effective, relevant CPD to their staff, and therefore increasingly turning to online solutions. With this growing need, teacher CPD and professional development has been identified as a possible ‘high potential area’ for FutureLearn in their Content Strategy (FutureLearn, 2016). At their Partners Forum in January 2017, FutureLearn expressed an interest in developing more education focused content, alongside their already sizeable and diverse portfolio of [teaching related courses](#). With pressure on schools to provide high-impact and low-cost CPD opportunities, and with 20% of FutureLearn learners citing teaching as their area of employment (FutureLearn, 2017), the GDST began to see the potential of creating MOOCs in this area and the opportunities that working with a MOOC provider, such as FutureLearn, can provide.

GDST’S MOOC: PLANNING AND CREATING CONTENT

As a leading player in the field of girls’ education, the GDST decided to create its first MOOC on the topic of, ‘[Girls’ Education: Teaching Strategies That Develop Confidence, Resilience and Collaboration](#).’ We have long been conducting research in this area, and in 2016 commissioned a piece of research led by Mike Younger at the Faculty of Education at the University of Cambridge on ‘[Effective pedagogies for girls’ learning](#)’. The thinking behind, and the findings of this research, contributed to the content of the MOOC and a copy of the research report was linked within the course, as additional reading, for those who wanted to find out more.

Drawing on this wealth of experience and expertise, the course was created by [Cathy Walter](#), our Assistant Director of Education at the GDST and [John West Burnham](#), from Queen Mary University. Learners on the course were invited to explore some of the key themes arising from the research in the area of girl-friendly learning, and engage in a dialogue with people all over the world about the effective teaching of girls to support them in the classroom and beyond. During the four week course, participants reflected on and discussed four pedagogical principals in relation to girls’ learning: collaboration, confidence and challenge, talk for learning, and partnerships.

From the start, we set out our organisational aims and motivations for creating and running our MOOC, and we revisited these as we planned our content to ensure they were being fully met. The aims we identified, in our initial planning stages, were

1. Teachers and education professionals already form a large proportion of MOOC participants, and find it a valuable way of engaging in tailored, on-demand CPD. Our MOOC will add a valuable and different contribution to this growing online portfolio of CPD opportunities.
2. Delivering CPD on an open platform gives us the opportunity to share our training courses, knowledge and research with the wider education community across the globe, including in developing countries.
3. Engaging a wide audience of teachers allows participants to benefit from working with a wider learning community, gaining a huge amount from the experiences of teachers in varied contexts and countries.
4. Delivering CPD in an online form gives teachers a chance to experience, as learners, online learning models, thus informing their own practice in designing and delivering online learning for students.
5. The experience of developing and facilitating a MOOC is a valuable learning experience in itself for lead educators, and leads to the development of a huge range of learning materials that could be used effectively in other contexts.
6. As an innovative organisation, we are keen to explore and evaluate the potential of new models of teacher CPD and engage in opportunities for research in this area.

With these aims in mind, we began creating content using FutureLearn’s course creation platform, the ‘back end’ of the interface through which users interact. The platform is intuitive, decluttered and exploits the social aspect of learning, so encourages course creators to use a range of

formats in their MOOC, such as videos, discussion boards, blogs, study groups, quizzes and peer assessments and we built many of these features into our own course.

Alongside the platform, FutureLearn curate a Partners Site which contains lots of information and advice on all aspects of creating, running and evaluating your MOOC. As we consulted the course creation part of the site, we looked at the visualisation of the course creation process which FutureLearn split into five distinct blocks: plan, design, build, run and review. Whilst this linear approach helped us segment the process, in reality, our approach was somewhat less linear and at each stage, we built in plenty of time for review which we would recommend others also do. As part of this ongoing review process, before the course went through a final Quality Assurance with FutureLearn, we invited teachers from across the GDST to review the course. Some feedback from colleagues is included below to show how we structured the course in order for it to be as user-friendly as possible,

“I loved the last few sections of the course - leaving the participant wanting more and feeling inspired to improve their practice.” *Ellen Hill, Primary Consultant, GDST.*

And

“the range of voices involved in week 3, as well as across the whole course gave it a really collaborative feel. I feel proud to have been part of it.”
Marelle Rice, P4C Co-ordinator and Head of Religion, Philosophy and Ethics, Northwood College for Girls – GDST

The comments illustrate the importance of careful planning and structuring, which reflects understanding how the course progresses and how each part complements the others. One particularly popular aspect of our course was the access to authentic learning experiences, which we included by using lesson footage from schools from across the GDST. We also ensured that we included pieces to camera from students, reflecting upon their own experiences, to emphasise the importance of student voice, and once again to add validity and authenticity to the content of the course.

Creating, editing and reviewing content was a real team-effort, and required a diverse and varied skill set that went beyond the confines of our own Innovation and Learning team’s specialisms. From the outset, working out your team, the strengths you have within it, and how these will be important throughout your MOOC journey, is just as pivotal as creating the content for your course.

Given the audience at this conference, I feel here it would be helpful to pause and consider what role librarians can play in MOOC production and what skills they can bring to the process. In an article written in 2013, Forrest Wright considered what librarians should know about MOOCs, and predicted that this form of online learning was ‘here to stay’ and that it represented a ‘new challenge in the shifting relationship between library services and online learning’ especially in the Higher Education sector. Building on some of his ideas, I would suggest librarians could add-value to the production of a MOOC in four key areas, each of which is discussed below.

1. Access to resources

This is a fundamental aspect of a librarian’s day-to-day work and they are familiar with matching the right resources with the particular needs of a user in both a physical and online environment. The ability to scan, sort and summarise large quantities of information quickly could be instrumental when deciding the course structure and matching resources to each step or activity within the MOOC. Their ability to view information through a critical lens could also help colleagues select appropriate resources to support their courses objectives.

2. Copyright and rights management

The scale of MOOC learning means that it can be particularly challenging to provide access to information in a meaningful way, especially information that sits behind a firewall and is therefore subject to a range of licensing agreements and terms and conditions. With the building and curation of online libraries, librarians are well placed to be able to advise on what processes might need to be followed in order to use licensed material, and to make the most of material released under Creative Commons licensing.

3. Structuring information

One of the key aspects to creating successful MOOC courses is the way the content hangs together, and the scaffolding that is in place, in order to give the course a coherent structure. FutureLearn’s platform, composed of weeks, activities and steps, gives the course a logical structure, but within this framework, there is plenty of scope for Partners to create their own course development and line of reasoning. Throughout this process, creators ask which parts of a course logically follow on from the next, what concepts do learners need to know before moving onto the next step, and how does each step build upon and complement other course content? So just as many school librarians have an active role in managing their school’s virtual learning environment, as they often have strong information architecture and classification skills, so too with a MOOC, a librarian could add value to the way information is organised and accessed on a MOOC platform.

4. Making information and courses discoverable

FutureLearn does much of this work for Partners and your marketing teams will probably also be involved, but it’s worth bearing in mind that a librarians’ knowledge of ontologies, thesauri, resource description and metadata could all help with making a course more discoverable.

GDST’S MOOC: RUNNING THE COURSE

The course ran for four weeks, from 21 November 2016, with our first joiners signing up in mid-September. Our audience numbers for the first run of the course are outlined in the table below. As you can see, there is a significant difference between the number of people who join (sign-up for) the course, and the number who actually engage with content, and then a significantly smaller proportion of learners who go on to complete the course.

	No. of learners	Percentages
Joiners	8392	100.00%
Active learners	2790	33.25%
Social learners	1315	47.13%
Fully participating learners	649	23.26%
Fully completing learners	476	17.06%

Girls’ Education first run, number of learners

At first glance, these numbers can be disappointing. Our number of joiners and active learners are higher than average for MOOC participation rates when compared to other teaching MOOCs offered on the FutureLearn platform. However, other comparable courses enjoyed slightly higher percentages of participating learners (30% compared to our 23%) and completing learners (22% to our 17%). Looking at the demographic information, learners joined the course from all over the world, although unsurprisingly given the content matter, we had a higher than average UK uptake with around 40% of learners coming from the UK compared with a FutureLearn average of 23%.

Throughout the course, teachers at our schools and colleagues from Trust Office (assigned the role of mentors) facilitated the discussion, commenting on users’ contributions and steering conversations to ensure they were relevant and timely. Facilitating a course for the first run was quite time intensive as mentors had to scroll through comments, and the interface could at times be difficult to navigate. A welcome addition for our next run of the course is a new feature on the FutureLearn platform called the ‘Facilitation Dashboard’ (March 2017). This is designed to make course facilitation more targeted and efficient, for example being more easily able to identify steps with fewer comments than you might expect, or steps which learners are finding difficult, so you can provide additional support, as well as identifying users who are particularly active and influential.

At the end of the course learners are invited to complete a post-course questionnaire, but as is often the case with evaluative surveys, we had a low response rate with only 120, at least partially completed responses. In contrast, 869 participants contributed (at least in part) to the pre-course survey. The survey questions collect a mix of qualitative and quantitative information, which we will now explore in the following section as we consider lessons learned and next steps.

EVALUATING

As already mentioned, throughout our FutureLearn journey, we have had several opportunities for review and evaluation. This is an integral part of the process and FutureLearn provide a wealth of data which is accessible by administrators of any course to help support your review process. Two key areas that we have looked at in our evaluation have been how far our course matched motivations and experiences of our learners, and secondly, how we can improve user engagement and retention. The final part of this section revisits the aims we set out at the start of the process and our thoughts on how far these have been met.

1. Motivations and expectations of learners

From writing the initial [course description](#), which is the shop-window to your course, we realised that we needed to be aware of learners' motivations and expectations and this influenced the way we pitched the course. Gender in education, female representation in the workplace and gender equality are huge topics, and ones that can be approached from a variety of angles. We wanted to ensure learners knew we were using our skills and expertise to talk about girl-friendly pedagogies and bringing experiences from the UK education sector to the course. Once the course went live for enrolment and learners began to introduce themselves and share their hopes for the course, it was clear that we were attracting a diverse audience, including a head teacher of a girls' school in the Punjab and a Nigerian teacher who spoke about the cultural expectation that boys will learn a trade, yet girls are expected to cook and clean.

In one way MOOCs can try to be 'all things to all people', they are openly available and learners can take the course at their own pace (within the parameters of the course structure). However, we quickly realised MOOCs need to be specific enough to be relevant to their audience, and structured enough for the content to be easy to follow in discreet stand-alone units. It also became clear as the course progressed, that the audience was self-selecting and decided whether they thought the course was matching their needs appropriately. After speaking to our Partnership Manager, who allayed our fears about this, we would encourage new Partners not to worry too much about the breadth and variety of learners joining your course.

At the end of the course, participants were once again invited to comment on their learning journey. Our audience included parents, teachers, trainee teachers and aspiring teachers and their comments reflected their own personal hopes for the course and how far these had been met. One parent spoke of their improved confidence in approaching their child's school if they had any concerns over her progress, whilst a teacher enthused that

"This course really made me think about my role as a teacher, especially one working in an all-girls environment. The videos and articles are well chosen to promote reflection and interaction with fellow educators. It was most rewarding to share ideas and experiences with colleagues from a variety of contexts which underline the fact that the experiences we share are far greater than any local differences might suggest." *Hadrian Briggs, Deputy Head (Academic), The Royal High School, Bath.*

These comments illustrate that learners take what they feel to be the most important aspects of the course with them and that it is difficult to preempt the impact of a course on learners.

2. User engagement and retention

User retention is a significant issue in the creation of online courses and 'completion rates have been the bane of MOOCs' existence since their inception' (State of the MOOC 2016, 2016). However, arguably, completion figures are far too crude an indicators of success. MOOCs have often been heralded as a way for learners to self-empower and to self-develop, and the inherent sense of self-motivation and engagement within the courses imply that users have signed up of their own accord and will set their own learning outcomes. For some learners, this may be a full-linear course where every step is completed, commented upon and each unit formally assessed but, it could equally be a much more 'dipping in and out' approach where learners direct what parts of the course they want to engage with and interact with other users in a way that works best for them.

An unfinished MOOC may have been successful in the eyes of the learner because it helped them with a job interview, or a project at work or simply expanded their knowledge of an area they were interested in. By following this line of thought, MOOCs as learning platforms could be far more successful than their retention numbers suggest, but capturing this user satisfaction from the data is not currently possible. Moreover, post-course questionnaires would require a different tone and emphasis in their questioning to tease out some of these tangible, but less immediately obvious, benefits of taking (part of) a MOOC.

The 2015 research undertaken by Jordan, *Massive Open Online Course completion rates revisited: assessment, length and attrition*, analyses data from 221 MOOC courses, revealed that completion data was positively correlated with start date, indicating that with more recent courses, we are seeing higher percentage completion (Jordan, 2015, p.354). Exact reasons for this change would need further investigation, but it seems likely that this may be caused by both the decrease in average total enrolments over time, and also the refinement of courses based on feedback since MOOCs first launched.

The length of the course and the number of steps and activities per week has also been analysed to see if this influences user retention. When considering our next course, our Partnership Manager at FutureLearn discussed course length, and suggested that for particularly weighty courses, it can be preferable to split the course into two three week runs rather than one long six week course, especially for the teaching community where six weeks is often a whole half term. The timing of a course also seems particularly important in an education environment, which is so cyclic, and so timetable driven. We chose to launch our first MOOC in the autumn term in the run-up to Christmas (21st November 2016 for four weeks). We chose this time as it was towards the end of the autumn term, once teachers had settled into the routines of a new school year, but it is a very busy and demanding time in the school calendar. It will be interesting to compare this data with our second run of the course which ran in March-April 2017.

Revisiting our aims and objectives

One of the most important aspects of the evaluation process was to revisit the aims and objectives we set out at the start of the process. Creating and running the MOOC has been a rich learning experience, and one that has fed into other aspects of our work, namely supporting colleagues to create meaningful digital learning opportunities for their own students. The fact that most of our teachers did not participate in online learning in their own schooling, makes opportunities to experience this as adults a really valuable part of the CPD process, quite apart from engaging with particular course content. This has been a successful part of the course and one which we are keen to continue to build upon within our own GDST teacher community.

Another aspect of the course which we were particularly pleased with, was the fact that it attracted parents and other interested parties, not just teachers. We did not anticipate this and as a result, lots of the activities within the MOOC, assumed learners had access to classrooms and students. As a result, course content has been reviewed for the second course run to ensure that it meets the needs of these users, as their contributions to discussions have added a greater depth and breadth to the learning community.

Finally, one of the most interesting and exciting aspects of running the MOOC has been to be part of a global conversation on girls' education and the role of women in society. The comments from learners from South America, Australia, the Middle East, and other parts of Europe, where education systems are different, which may have contrasting cultural norms and a different set of expectations, have made for rich and varied discussions, sharing of experiences and learning from others expertise.

CONCLUSION

It is with these thoughts of sharing global practice and the value we place on colleagues' skills and expertise across the world, that this paper concludes. Throughout the conference we will have the chance to think about learning without borders in its broadest sense. For us, creating and evaluating our first MOOC has been an important way to engage with the wider education community and offer high quality CPD to teachers, which we hope will ultimately deliver tangible benefits to all students. By understanding our motivations and aims for creating the MOOC and those of our learners', we have

begun to articulate what success looks like for teacher CPD provided through GDST MOOCs. We are on an ongoing journey in this area, and this process of reflection has fed into the planning of our second MOOC, which will be launched in autumn 2017, in the area of educational research.

GLOSSARY

Term	Definition
Academy School	Academy schools are state-funded schools in England which are directly funded by the Department for Education and independent of local authority control.
A-Level	A qualification in England and Wales in a specific subject typically taken by school students aged 16–18.
CPD	Acronym standing for Continuing Professional Development.
Independent School	A fee-paying school that is independent in its finances and governance.
Secondary School	The next stage of schooling after primary school for children aged 11-16.
Sixth Form	The next stage of education after secondary school which is the two final years at school for students between the ages of 16 and 18 who are preparing for A-Levels.

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Building a Successful Reading Culture through the School Library: A Case Study of a Singapore Secondary School

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ABSTRACT

Much research has documented the strong correlation between independent reading and academic achievement, and the school library can serve a crucial role in encouraging reading. Drawing from one case study out of a larger dataset of six schools, this paper details how one school transformed its school library and made it a central place for reading within the school. Data collected provided evidence of the kinds of strategies, programmes and design that works to encourage reading. Schoolwide reading surveys, interviews with principals, teachers and Library coordinators at each school and interviews with students gave an understanding of the culture of reading and library use within the school. Qualitative library observations, timed counts, narratives and time-lapse photographs of library space contribute to our understanding of how particular spaces within the library was used for reading or not. Factors for building a reading culture include: (1) Designing conducive spaces for reading, (2) Curating the selection for readers, (3) Creating programmes to excite readers, (4) Designing spaces for reading, and (5) Building an ecology for reading.

Keywords: School Libraries, Reading Culture, Secondary Schools, Singapore, Library Design

INTRODUCTION

There is increasing concern worldwide with students' literacy levels, with many nations leaning towards more instrumental approaches towards reading instruction, in the hope that systematic standardized instruction can improve the reading scores of students. The anxiety about reading springs from the belief that reading is a foundational skill for economic and civic participation, as well as lifelong learning. Within Singapore, the National Reading Movement launched in 2015 aims to encourage reading as a national habit and to build a community of readers within the nation. This paper examines how school libraries can be effective agents of change for transforming schools into reading schools by drawing selectively on a single case study from a large-scale mixed-methods study of six secondary school libraries in Singapore to illustrate how school library can be central to building a reading culture.

THEORETICAL FRAMEWORK

School Libraries and Reading

Much research has demonstrated the correlation between leisure reading (otherwise termed as free, independent, voluntary or extensive reading) and reading achievement (Anderson et al., 1988; Kirsch et al., 2002; Samuels and Wu, 2001; Krashen, 2004). Besides gain in reading comprehension, vocabulary growth, spelling ability, grammatical usage and writing style, students who read well are able to access more texts and knowledge through wide and varied reading (Cunningham and Stanovich, 1998). This "information capital" (Neuman and Celano, 2012) that students acquire through extensive and wide reading leads to acquisition of more knowledge, including those required for doing well in academic subjects. Good readers thus gain more by reading more whereas weak readers who have to exert more effort at decoding are less likely to be motivated to engaged in further reading required for improved

comprehension and knowledge acquisition (Allington, 1984). This leads to a “Matthew effect” (Stanovich, 1986) where skilled readers’ knowledge acquisition is accelerated through reading while weaker readers lag behind as a result of their lack of reading proficiency, practice and motivation.

As such, reading engagement is an important component, particularly for motivating poor readers. Beyond academic grades, engaged reading is a precursor to independent learning as skilled readers learn more about language and the world through their reading (Cunningham and Stanovich 1998, Krashen 2004). Students who are intrinsically motivated are more likely to read (Wigfield and Guthrie, 1997), and students are motivated to read when they have access to good quality and diversity of reading materials (Ivey and Broadus, 2001). In this model of reading engagement, independent reading is a non-negotiable element of a school’s reading programme (Gambrell, 2013), and the push towards engaged reading must be a whole school effort (Francois, 2015).

School libraries can play a central role in cultivating a reading culture (Adkins and Brendler, 2015) and raising academic achievement (Barratt, 2010; Lance, 2002; Todd and Kuhlthau, 2005), though its importance is often underestimated in a climate of budgetary constraints. The International Federation of Library Associations’ (IFLA) School Library Manifesto (IFLA School Libraries Section Standing Committee, 2015) explains that a core role of the school library is to develop and sustain “in children the habits and enjoyment of reading and learning, and the use of libraries throughout their lives” (p. 61). This focus on reading for pleasure and reading as a part of learning contributes to the school library’s mission to provide “information and ideas that are fundamental to functioning successfully in today’s information and knowledge-based society” to equip students “with life-long learning skills” and develop “the imagination” to enable students “to live as responsible citizens” (p. 16). School librarians can help curate the book collection and help students to select books they are interested in such as popular Young adult literature, comics and magazines (Constantino, 2008; Getrost and Lance, 2014; Ujiie and Krashen, 1996) or function as reading specialists helping weaker readers with their reading (Parrott and Keith, 2015). Programmes such as book clubs and summer reading programmes can be organised to encourage students to read (Lu and Gordon, 2007).

The school library may be particularly important in helping less proficient readers from lower socioeconomic status families read. In the preliminary findings from the survey portion of our survey, we have found that while there is a significant correlation between number of books owned by students and their visits to the public library, there is no correlation between number of books owned and visits to the school library. In fact, low-performing students from lower income homes interviewed shared that they preferred to read in school if the environment is conducive. Thus, it is important that schools harness the school library as a central place for building a reading culture.

School Library Design

Other than rethinking the book collection and reading programmes as ways to encourage reading behaviours, re-designing and refreshing the library space is another way to encourage students to visit the school library. Design and organization of space can influence social relations within space (Lefebvre, 1991), and how students feel about a particular space contributes to their desire to visit the space and to engage in particular learning behaviours. Grosvenor and Burke (2008), in their historical study of school buildings in the United Kingdom, reflect that school furniture can be seen “to reflect pervasive notions of pedagogy” and “promote ideas and theories about the relationship between pupil and teacher and between body and mind in learning” (p. 10).

Barker’s (1968) theory of behaviour settings explain how “units of environment” influence human behavior and can be applied to our understanding of how educational spaces can be organised to improve pedagogical outcomes. The physical environment can provide cues to shape social behavior within particular spaces, and the spaces can be deliberately and thoughtfully assembled to encourage preferred learning behaviours (Cleveland, 2017). Thus, if reading is to be a priority in school libraries, spaces should be designed and furniture organized to encourage different forms of reading within the space. Furthermore, it should be integrated into the reading culture within the school.

Bland et al. (2013) suggest that understanding the patterns of participation that particular learning spaces can provide can help educators maximize their use of library space. From their study of seven recently renovated libraries in Queensland, Australia they developed a typology to better understand how library spaces were used in schools.

1. *Expanded* spaces embraced experiences that had also occurred within old library space that were extended to become richer or more diverse in the new spaces;
2. *Enabled* spaces provided for experiences of new practices that were made possible by new library spaces;
3. *Informal* spaces allowed for new experiences for students that occurred outside of the formal curriculum; and
4. *Extended* spaces enabled learners to be positioned as members of a community, and to engage with the community within the new library spaces (p. 132).

The typology helps with the analysis of how the library space can be utilized for different learning outcomes. It provides a way of evaluating the effectiveness of space usage for pedagogic purposes. In our case study school, the traditional library space is thoughtfully redesigned to extend the role of the library as a reading space. We also see how new ways of reading were encouraged through the redesign, and how the culture of reading in this school encouraged students to colonize (Shilling and Cousins, 1990) multi-use and informal spaces for reading. Within the newly redesigned library, policies and programmes were implemented to support the school's vision of their students as lifelong readers who read for enjoyment and learning.

METHODS

The case study in this paper detailed in this paper draws from a large-scaled study of six secondary school libraries in Singapore. The case study school, Commonwealth Secondary School, provides an interesting study of how a school library transformed its under-utilized school library into one which is highly popular with and utilized frequently by the students. More importantly, the library was designed with the specific purpose of encouraging reading and we were able to document the effectiveness of the various design strategies between September 2016 to May 2017 through survey, observation and interview data. Visual data such as photographic stills and time-lapse photography allowed us to analyze how space was utilized by the students.

The Context

The impetus to renovate the school library arose from the vision of the school leader to build a place where students can be encouraged to read in a self-directed way. Guided therefore by this goal, the Head of Department of English was appointed the Library Coordinator and tasked, with four other teachers, to use Design Thinking as the process for working towards a user-centric library that would encourage independent reading, study and collaboration. Design Thinking is a process created by IDEO (2017) that focuses on a structured design process to generate ideas to resolve identified issues. The five steps of Design Thinking involve Discovery, Interpretation, Ideation, Experimentation and Evolution.

After identifying the need to renovate the library space to encourage reading (Discovery), the Library committee members interviewed students and shadowed them to find out more about how student would want to use the library space (Interpretation). Based on their understanding of student needs and research, they generated ideas (Ideation and Experimentation). Key features in the library central to the strategy for building a reading culture include allocating the best location in the library (beside the greenery) for a reading corner, building multi-purpose spaces such as performance steps that can also be used for reading, beanbags for more comfortable reading while lounging, careful curating of books and attractive retail style book displays. Even after the renovation, the Library Team continued to monitor library usage and added features to the library based on their observations and student feedback (Evolution).

The Library Space

A physical mapping of the school was completed and photographs taken to record how the space was used and how the use of space evolved over time. The layout provided us with a visual of the space and the photographs were used to track the changes over time. They also provide data for discussion alongside the written field notes.

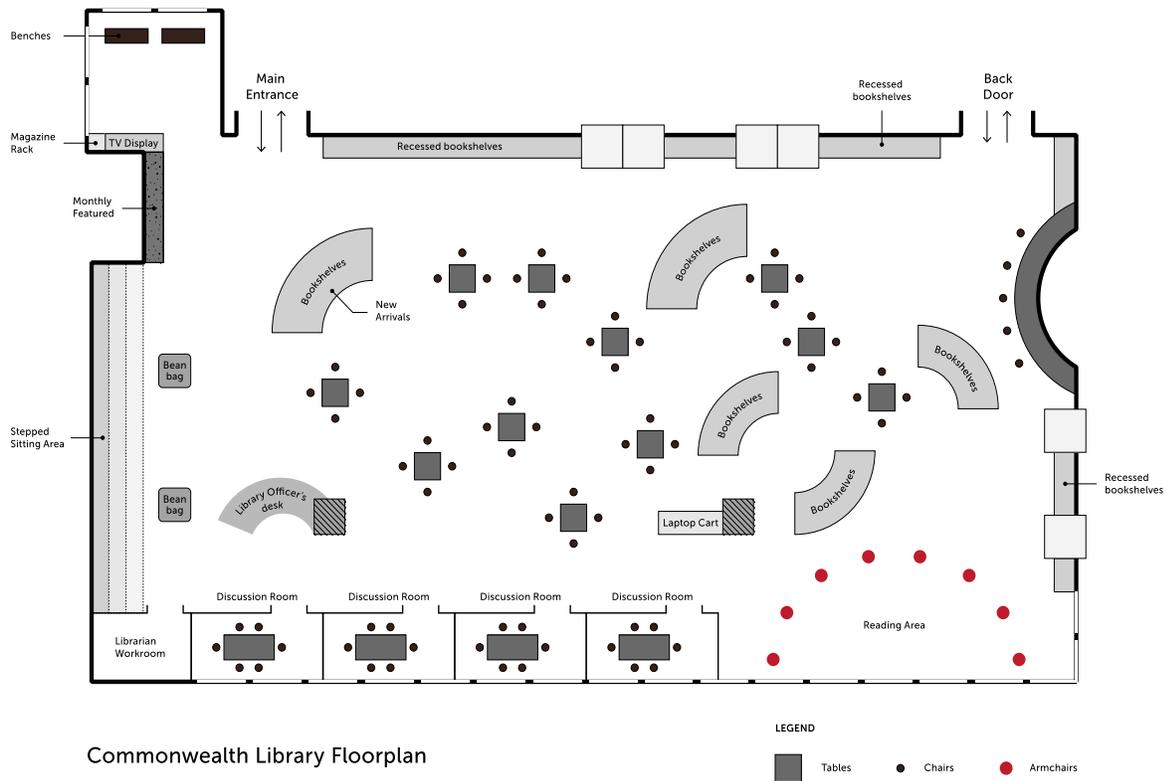


Figure 1. Layout of Commonwealth Secondary School Library

The library adopted an open, contemporary layout design. It can be divided into the following areas:

1. Performance area: This area features three-stepped levels for students to sit and opens up to a small empty area. The area has several different uses, and is often transformed to suit the occasion. On normal library days, the space is used as a reading space. Beanbags are placed in the empty area to create comfortable seating options for students who are looking for a place to browse / read books. Some students are also observed to sit on the steps to read.
2. Book display: Located close to the entrance of the library, the thematic book display is updated monthly. It is placed prominently and is one of the first things that a visitor to the library will encounter and possibly interact with. Notably, fairy lights are also used in this display area to draw attention to the display itself.
3. Main study area: The bulk of the floor space is occupied by small study tables that seat four library users. The area is loosely demarcated into smaller spaces by the use of moveable shelves and other library furniture. The placement of the tables, shelves and other library furniture is thoughtful and user-centric: multiple users can use these various facilities comfortably without affecting other users. The main study area is also loosely divided by movable shelving arrangements. These shelves are typically used to display new arrivals or large books that do not easily fit into the regular shelving spaces in the wall shelves.

4. Wall shelving: The bulk of the library's collection is stored in wall shelves and is primarily responsible for creating an open layout in this particular library. The shelves are also attractively designed, and feature many different shelving spaces for the school to adopt retail-inspired shelving techniques.
5. Discussion Pods: Four soundproof discussion pods are built in the library with the intention of facilitating discussion. The pods adopt glass walls which serve dual purpose. Students holding discussion inside these pods can use the surface to jot down notes from their discussion. The transparent walls also allow the library assistant to monitor student activity within the pods and intervene if undesirable behaviour is spotted.
6. Reading Corner: Towards the rear of the library are eight armchairs arranged in a semi-circle. The chairs are positioned approximately 30 centimeters apart. This ensures that users occupying the space cannot engage in prolonged conversations with each other, and even if they do, they are limited to two participants only. Students have been observed to use this area for quiet, sustained reading.
7. Wall-seating area: There are eight cubby holes carved into the wall shelving area. They are yellow-green in colour and feature a bench and a small writing surface which will comfortably seat 2 students. The cubby hole is well-lit and is quite heavily utilised by students for studying and reading.
8. Bar seating area: A new addition to the library since major renovations were completed, the bar-seating area is a repurposing of an empty structural pillar that is situated to the rear of the library. This area features a bar-style writing area with five bar stools placed around the pillar. The space is well-received by users and a variety of behaviours - both individual work and collaborative/group behaviours have been observed in the area.

As the school's library committee was constantly evaluating the space and improving on it, additions were made each term and we would monitor the use of these new spaces. For example, taking feedback from teachers and students alike, a new bar height table was added to a previously empty pillar and high stools were placed there in Term 2. The Library Coordinator deliberated whether to place computers there and in the end, decided to leave it as a flexible working space for students (see Figures 2 and 3). The repurposing was done thoughtfully - the styling and choice of furniture kept to the established aesthetic of the space. The new space was well-received by the users and provided a different kind of seating (bar-type seating) to complement the existing choice of seating available in the library.



Fig 2. The renovated library, with the structural wall at the end of the room left untouched.



Fig 3. The repurposed wall, completed in Term 2.

Data Collection and Analysis

The study is a mixed-methods study, pragmatically drawing on both quantitative and qualitative approaches to understand the issue at hand. Data collection was wide-ranging and consisted of a range of tools from a school-wide reading survey, interviews with the Principal, Head of Department and Library coordinators at each school to observation data.

A school-wide reading survey was administered to students to understand the reading and school library culture in Commonwealth Secondary School. 906 students or 85.7% of the students responded to the survey. Observation data allowed us to track student behavior and response to space in the library. The researchers visited the library 12 times over nine months (September 2016 to May 2017) to get a sense of how the library space was used over time. Each observation lasted for approximately 8 hours, from the opening to closing of the library. In addition, we would also make a note of special events and turn up to observe the events in the library. In total, we spent 96 hours in formal observations, and eight hours observing special events organized by the school.

Each observation was conducted by two research assistants. One research assistant would conduct time freezes where she would do a count of the number of library users and note the activity conducted within specific spaces in the school library. Counts were made every ten minutes during peak periods (recess breaks and after school) and every twenty minutes during non-peak periods (class time). Activities were broadly coded under the following categories: reading behaviours, study behaviours, collaborative behaviors, research behaviours, leisure behaviors and others. The field notes were further coded to deepen our understanding of each kind of behavior. For example, reading behaviours were further categorized into “sustained reading”, “browsing behaviours”, “work-related reading”, “social reading” and “individual reading”.

A second research assistant used duration recordings to capture visual and written “snapshots” of the specific students. The use of photographs allowed us to visualize and illustrate the kinds of behaviors observed in the library. Conversations with students also helped us to understand the motivations behind particular uses of space. We also made use of technology and deployed three Go-Pro cameras in the library to obtain time-lapse data. The Go-Pro camera was programmed to take a snapshot of a fixed location every minute during peak hours. By analysing specific frames, we were able to differentiate the kinds of reading behaviours present in the students. The visual data collected over nine months also allowed us to understand how particular spaces and furniture encouraged certain kinds of behaviours and to see how students colonized the space for their own use.

In addition, fieldwork relating to describing the book collection in the library took place on Jan 25 and April 18, 2017. A summary of the observation included notes on the collection and spatial arrangement. Specific questions guiding the observation are: (1) What are the ways space is used to enhance/ promote the collection? (2) What are best practices that might be adaptable to other collections?

Interviews were conducted with students (including both library and non-library users) to understand how the library was perceived and used. The interviews were transcribed. Field notes and interviews were coded using *Nvivo*, a qualitative coding software, focusing on how the library was promoted, perceived and utilized as a reading space. Although the project also looked at other aspects of library use such as collaboration, study, research and making, this paper focuses selectively on the data related to the library as a reading space to illustrate how school libraries can encourage or impede the building of a reading culture.

CREATING A READING LIBRARY

Evidence from various sources showed that the school library had been effective in promoting itself as a space for reading. Firstly, 71.6 of students stated in the reading survey that they visited the school library. Of these students, 30.5% of the students were regular visitors who visited the library at least once a week. In addition, reading and borrowing ranked among the top three activities students preferred to engage in. Lower secondary students were more likely to read and borrow books whereas upper secondary students spent more time studying and reading, probably because of their preparation for the national high-stakes examination. The popularity of the library is striking in comparison to an earlier study by Loh (2015) where students in another Singapore secondary school did not like to visit their school library and seldom visited their school library.

The data also stands out in comparison to the study from five contrasting schools. While the borrowing rate had decreased in four out of six schools, borrowing was on an upward trend at Commonwealth Secondary School. Figure 5 shows the increased loan rates from January to March, with a

lesser increase in April, probably due to students' borrowing less to prepare for their mid-year examinations. The increased loan rate is striking because of the library's small collection of 3.5 books per student (as of January 2017). The Library Committee had decided to revamp the library's collection as part of the renovation, and had condemned many of the older collection. The refreshed collection consisted of many new and exciting titles but was substantially smaller as time was required to build up the collection again.

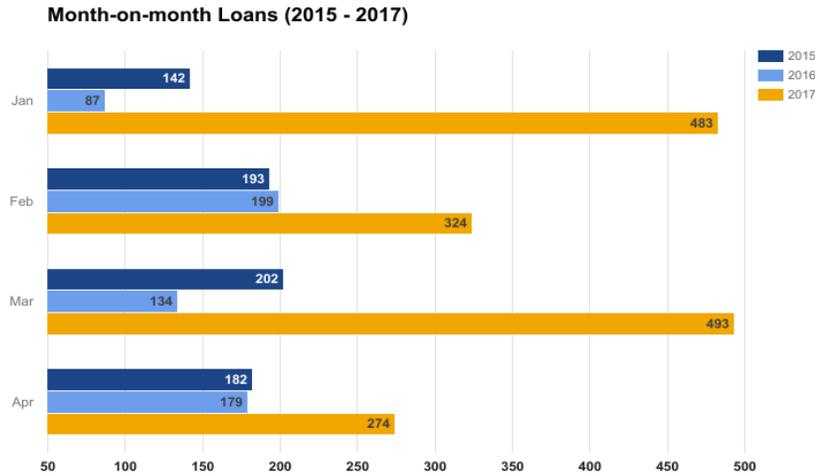


Fig 4. Month-on-month Loans from January to April 2015, 2016 and 2017.

Part of the research involved full-day observations where researchers would document the actual activity in the library to quantify the kinds of activity taking place. The time freezes also demonstrated that students read in the school library (Figure 7). In comparison to the data from five other schools where reading behaviours were observed to happen between 2% to 7% of the time, reading was observed to constitute 27.2% of the time. While studying behaviours (such as completing homework and revision) formed the majority of the observed activities, reading came in second, indicating that by and large, students did use the revamped space and refreshed library collection to read.

Observed Activities in School Library (5 Days, By Type)

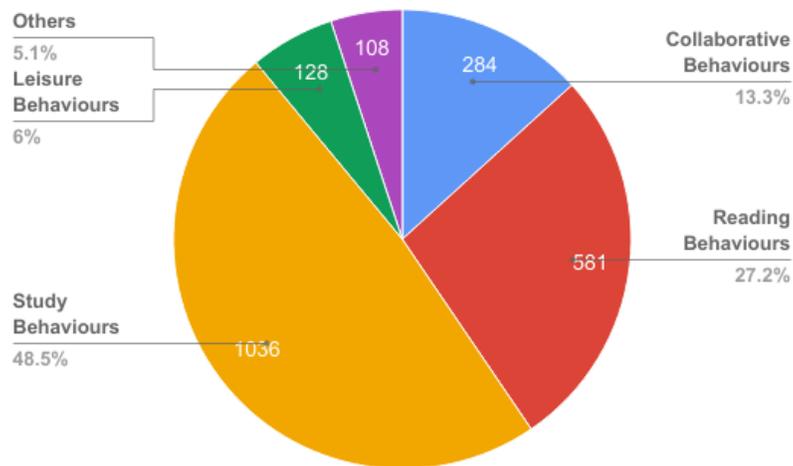


Fig 5. Breakdown of Observed Activities in Commonwealth Library in Term 1.

The following section discusses the various factors that contributed to the school's success as a reading library.

Curating the Selection for Readers

School libraries can motivate students to read by providing a wide variety of books for students to choose from, including magazines and comics (Adkins and Brendler, 2015) and popular literature (Constantino, 2008; Friese, 2008). A wide range of literature is important for appealing to the different interests of different readers, including avid, reluctant and struggling readers. The increased book loans demonstrate that it is not only the size of a collection that matters. Students' perception about the kinds of books and the environment for reading contribute to their desire to visit the library to borrow books or to read.

Interestingly, students' qualitative feedback on the library focused on the comfortable and quiet environment for studying and reading as well as the well-curated selection of books. Students' comments centred around the perception that there were a wide variety of interesting books, including books that seem unusual and attractive to the students. Qualitative feedback about books include the following:

It is quiet and has a wide choice of books.

The library has lots of books for me to read.

It is big and has rare books I can't find in other libraries.

Nice layout and facilities, many interesting books from a wide range.

It is very calming and has many books I am interested in.

It has many books I have never seen before.

It is big and nice and new books are coming to the collection.

Their comments showed how the selection and advertisement of books made the library seem interesting and unusual, catering to the needs of the students to access a wide variety of books.

The choice of books is driven by the school's expansive view of reading, to encourage any form of reading, whether through magazines, comics, biographies, or inspirational non-fiction. The principal shared that the main purpose of the library should be to inspire "a love for reading and the principle explained that the books in the library should inspire curiosity so that the student would want to "pull the book out" and "pick up the books to read". The Head of the Library Committee personally oversaw the curation of the books for the library, driven by the school's goals to attract students to read, through the

selection of books that would appeal to the students. The Head was also concerned that students would be exposed to quality literature and that students would read above their reading level.

Notable strategies include a large selection of comics and graphic novels, non-fiction and other large information texts chosen to inspire, and pop-up books that were especially popular with all the students. The selection of “easy” pop-up books about classics (such as Jane Austen and Shakespearean titles) were placed next to the original texts, and worked as a strategy to interest students in reading the pop-up books and even the originals. The perception that the books in the library were current and relevant led to students’ reading as a default activity. Students were observed picking up books and magazines during their rest from studying, and would drop by the library when they had some time to browse, read and relax.

Using Retail Principles for Book Choice and Displays

The increased book rate demonstrates that the size of the book collection may be less relevant than the kinds of books in the selection and the display strategies used to attract the students attention. Advertising books and making them visible is an important strategy to draw students into the library (Makatche and Oberlin, 2011). The school library advertised books physically and online, through Instagram and Twitter.

Physically, the library space could be divided into the entrance or the welcome area, the fixed shelves and the mobile displays, each serving complementary and slightly different functions. The welcome area consists primarily of a digital sign, a monthly thematic display and the multi-use benchers and beanbags. This area is visible through the double-glass front doors and was designed to invite students walking past into the library. Thematic displays seen during the nine months of observation included Romance, Science Fiction and Fantasy. New books were also featured, and were also promoted on Twitter and Instagram.

Taking a leaf from retail principles, attractive and current book displays and display of readers’ blurbs are ways to entice students to pick up books. Displaying books with the covers front-facing rather than spine in may take up more space but can encourage greater interest in selecting these titles. Books were arranged by genre rather than Dewey Decimal system, partly due to the limited size of the collection and partly to facilitate ease of browsing and selection. The genres included fantasy, romance, science fiction, graphic novels, travel. Each section was designed attractively. For example, in one of the sections titled “Discover”, there are three components: science fiction, historical fiction, and graphic novels. The title suggests new worlds that students can explore and include classics as well as more contemporary books belonging to these genres. Attractive posters and artwork by students (book cover designs or paintings of scenes from books) were displayed to complement the books and to create a sense of excitement about books. These displays were especially attractive as they sat alone on the shelves (no books on either side) and were effective by drawing attention to a particular part of the collection.

Selection and display principles were also guided by the knowledge that less proficient readers may need more encouragement to read. Hence, the attention to attractive book covers were designed to draw the attention of more visual students. Pop-up books were tactile, sparked students’ interest and were displayed prominently. Students were observed heading towards the pop-ups , sitting down and eagerly discussing and preparing them. The books in the mobile display shelves tended to serve the purpose of drawing students to pick up books to browse and could be said to fall under the category of “inspirational” texts. These mobile displays give a sense of movement to the entire space; the library is a fluid, changing collection which appeals to its readers.

CREATING PROGRAMMES TO EXCITE READERS AND NON-READERS

In *Reading beyond the book*, Fuller and Sedo (2013) note that viewing reading as entertainment, as a “media experience” (p. 248) allows us to understand reading as a social activity that can be shared by many. Understanding that reading includes more than the image of the solitary reader immersed in a book in a lone corner (Long, 1986) helps us understand the need to create excitement around reading to attract students, particularly non-readers (whether reluctant or struggling).

The Library Committee envisioned the library as a social space for activities around reading and other forms of learning. At the level of programming, the committee aimed to create a vibrant social life around books and reading. Teachers were invited to give book talks and musical performances were held in the library. Each term, there would be a special workshop sponsored by the school and limited to the first 20 participants. The exclusivity of such events created a sense of excitement and buzz around the events in the library. The use of social media to promote books and events also worked to encourage students to be aware of what was happening in the library; students did come into the library to ask for books advertised on Instagram and Twitter.

The library was not just a space that was visited by students. Teachers also began to see the library as an alternative space for activities. During our nine months, we observed English teachers bringing their students in for poetry presentations and reading projects and History teachers bringing their students in for discussion. As the library became an exciting place for teachers to try out different kinds of lessons and teaching, it also became an exciting alternative space for students.

DESIGNING CONDUCIVE SPACES FOR READING

The use of space and the various displays in the library give an impression of a library that is welcoming, interesting and fun. The sense of place or the students' subjective understanding of the library as place (Cross, 2001) seemed to be that it was a cool and hip place to be at. In the qualitative portion of the survey where students were asked what they liked about the survey, the environment provided emerged as the top reason why students liked their new library. Words such as "quiet", "nice", "comfortable", "relaxing", "cool", "cozy", "beautiful" and "conducive" populate students' responses to the library.

This sense of place was deliberately designed with the Library team describing their objective of making the library a "hip" and "cool" place for students. Firstly, the aesthetics of the renovated library, with special cubby holes for studying and different furniture for different learners was attractive to the students. Balanced lighting, soft music and aromatherapy contributed to the peaceful and calm atmosphere in the library. In our observations, we seldom observe students raising their voices or disrupting others using the space. The way the library was designed and set up encouraged students to adjust their behavior when entering into this space. At the same time, they were permitted to engage in noisy activity when there were events in the library. Students were socialized by their teachers to behave in a particular way in the library but the set up of the library also encouraged these forms of considerate behavior.

Space must correlate to intent for the use of the space. Since the school wanted to encourage reading through the school library, there was deliberate attempt to ensure multiple and varied kinds of spaces for reading. The armchair area situated beside the windows looking out to greenery and the car park space provided students interested in browsing or sustained reading with a comfortable spot to locate themselves. The beanbags and steps at the performance area provided additional seating. Students also colonized the study spaces for reading. In our observations, we have several instances of students moving from one location to another to vary their reading space and posture.

The two screen captures from the time-lapse (Fig. 6) demonstrates how the reading space is well-utilized by students for reading. It illustrates a principle of design of reading spaces learnt from our research. To encourage sustained silent reading, spaces for individual rather than social engagement must be created. Here, the hardback armchairs spaced wide apart allow students who want to read to engage in solitary reading. At the same time, the placement of two movable shelves with attractive books behind the armchairs allowed students to sit down and browse.



The sequence of two images you see towards the left hand side is part of a time lapse captured in January 2017, from 10:04 to 11:49, between the lower and upper secondary recesses.

From top to bottom

1. **Book Browsing:** The two boys towards the far left corner in Image 1 are simply browsing the books they have on hand. They leave the observation frame after 2 minutes at 10:22. The boy closer to the right hand side of the frame stays within frame for over 16 minutes, from 10:16 to 10:31, engaging in sustained reading.
2. **Sustained Reading:** The boy in the final frames stays in the observed area for 44 minutes, entering at 10:52 and exiting at 11:36, reading *Catcher in the Rye* by J. D. Salinger over a few days.



Figure 7. Time-Lapse showing different reading behaviours within the Reading Area.

Building an Ecology for Reading

To build a reading culture, there needs to be an ecology of reading within the school with the principal leading the way (Francois, 2015). The emphasis on reading in Commonwealth was definitely driven by the principal, an avid reader himself, and supported by the staff. In an interview with the principal, he noted the importance of instilling the love of reading among students, rather than having them see it as enforced by authorities and as a chore. Part of this vision is the desire to see reading as a practice that arises from the deliberate will among students, to engage in a habit worth pursuing on their own, outside the purview of any structured reading period. In the words of the school leader: “I would rather give (the students) a bit of breathing space...a quiet space so it’s no longer a kind of reading period but it’s kind of a quiet moment where I want (them) to read something”. The principal wanted the library to be a “third place” for students to “hang out” and to encourage reading. He had high expectations of his staff and his students, stating that they “could be reading more”. He was an example to his staff, often sending our readings through Twitter to selected staff to encourage them to read to learn more about their content area or to inspire them in life and in work.

The vision of the library as an attractive space for students and as a reading and learning hub was shared by teachers from different departments, as being a key ingredient for success. For example, all Secondary Two students had to complete a Reading Project which was to create a diorama based on a

book read recently. The building project was in line with the school's Maker Culture and focusing on a fiction text allowed students to engage in a fun project about reading.

The culture of reading seemed embedded into the school. We observed students reading in the morning assembly period before school started and when they were exempted from Physical Education classes. Interestingly, when students were asked if they were forced to read, most told us that they were encourage but not compelled to read. The reading survey showed that 68.9% of the students enjoyed reading and that most students read for pleasure (e.g., reading is my hobby, I read for enjoyment, I read for relaxation). Students also saw reading as part of their learning.

CONCLUSION

Across our research at the six different schools for this study, we observed that the school library was often a microcosm of school life, and that the vision and actual usage of the school library was often inspired or limited by the principal's and staff vision of the school library. Here at Commonwealth Secondary School, the library was seen as a central space for encouraging reading. This guided the library renovation, curating of books and implementation of activities that contributed to students' vision and use of the library as a reading library.

To build a successful reading culture through the school library, it is essential to ensure that there is integration of policy, programme and practice. Without support and a coherent vision supported by thoughtful implementation, attempts to build a reading culture may be fragmented and uneven. Attending the curating and display of books, creating programmes and designing spaces within an ecology that supports reading can ensure the centrality of the school library to amplifying the school's reading culture.

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Education for Teacher-Librarianship: Anywhere, Any Time

Moderators: Barbara Schultz-Jones and Jennifer Branch-Mueller

Presenters: Karen Gavigan, Jennifer Branch-Mueller, Barbara Schultz-Jones, Ross Todd

Abstract

Best practices in education for teacher-librarianship increase opportunities for diversity in candidates, in modes of learning, and in location and time of learning. This session was sponsored by the School Library Education SIG. The panel presentation considered education for school librarianship in light of the *IFLA School Library Guidelines*, 2nd edition (2015) and current research on best practices. Innovative programs for educating school librarians from around the world were shared to illustrate the diverse ways to prepare school librarians for the roles identified in the *Guidelines* and in national standards. Presenters described ways for delivering school librarian credentialed programs and for providing professional development opportunities for in-service school librarians.

REGIONAL WORKSHOPS - COLLABORATIVE PROFESSIONAL DEVELOPMENT FOR IN-SERVICE LIBRARIANS IN SOUTH CAROLINA

Karen W. Gavigan

Dr. Gavigan is an Associate Professor in the School of Library and Information Science, University of South Carolina, USA

Professional development sessions are an effective way for school librarians to hone their skills to better support the needs of their students and teachers. Unfortunately, many professional development sessions provided by school districts are not always relevant to school librarians. This session provided an overview of Regional Workshops that have been held for South Carolina school librarians the last two years. The Workshops are free to participants, and they were conducted in locations around the state. They are the result of a collaboration between the School of Library and Information Science at the University of South Carolina, the South Carolina Department of Education (DOE), the South Carolina Association of School Librarians (SCASL), and Follett School Library Solutions. These workshops provided important information from the SC DOE about new statewide initiatives, as well as sessions on current topics such as maker spaces, graphic novels, primary sources, DISCUS (the state's online resources for students), and more. An additional benefit of the workshops is that SCASL is able to promote membership in their association, and promote their annual conference and other resources. Participants at the workshops receive continuing education credits, as well as the opportunity to network with colleagues from around the state.

TEACHING WITH TECHNOLOGY PREPARATION FOR TEACHER-LIBRARIANS IN CANADA

Jennifer Branch-Mueller

Dr. Branch-Mueller is a Professor in the Faculty of Education at the University of Alberta in Canada.

We want our teacher-librarians to be confident users and teachers of technology. We hope that they support students to use appropriate technology tools to find, evaluate, use, create and share information and new knowledge. We expect that our students will learn to be good digital citizens. To do all this, our pre-service teacher-librarians need varied experiences with technology in their own learning. They need time and opportunity to try out new tools and to feel comfortable with the speed of change in technological advances. Jennifer will discuss experiences integrating technology into assignments, discussions, and online tasks in the teacher-librarianship program at the University of Alberta. This includes an overview of exploration of a technology course where students are expected to use voice thread, storybird, online timeline creators, screencast programs, Twitter, Facebook, Pinterest

and Instagram, Prezi, podcasting and Youtube, comic generators, Voki and Goanimate to share with their fellow students. Jennifer also will discuss some of the challenges and possibilities of teaching the course and also some feedback from students about learning about new technology tools. The audience will be encouraged to bring examples and share their own stories about successful ways to build pre-service teacher-librarians' confidence with technology.

TEACHING THE ETHICAL USE OF INFORMATION IN SCHOOL LIBRARY EDUCATION

Barbara Schultz-Jones

Dr. Barbara Schultz-Jones is an Associate Professor and Director of the School Library Program at the University of North Texas, USA.

To be able to use information ethically, educators and students must equip themselves with principles that can be applied as information literacy skills to our information landscape. This presentation traces the evolution of the concepts of ethics and of media and information literacy as they became more closely integrated in standards and guidelines. Four principles of ethical behaviour are presented: respect for intellectual property, respect for privacy, fair representation, and non-maleficence (doing no harm). The connection between the learning environment and the adoption of ethical information literacy skills is presented, and the use of an informed learning approach to teaching and the guided inquiry model are explored. Scenarios and resources are included as examples for inclusion in an integrated curricular approach to teaching the ethical use of information in school library education and in school library programs in schools.

BUILDING AND SUPPORTING ACTIVE E-LEARNING COMMUNITIES: THE RUTGERS (ROSS) EXPERIENCE

Ross J. Todd

Dr. Ross J. Todd is Associate Professor and Chair in the Department of Library and Information Science, School of Communication and Information, Rutgers University, USA.

The presentation will outline a range of strategies and initiatives to support active learning in our online MI program. Considered as a late entrant into the arena of online delivery of our MLIS (now MI) in 2007, we were the first program at Rutgers University to deliver a fully online masters program. Rutgers University continues to place considerable emphasis on "Enhancing the Student Educational Experience", and we have benefited greatly from the experience, insights and feedback from many programs who pioneered e-learning. The strategies and initiatives here, albeit from a personal perspective, will address the following dimensions (based on a framework established by Wilcoxon, 2011).

Instructional Design Presence: supporting the structure, sequences, technical frameworks and affordances for deep learning.

Teaching Presence: the balance of direct instruction and its delivery, scaffolds and support structures to enable personal deep learning.

Supportive Discourses: the nature of the learning interaction to enable a sense of participation, dialogue, and reciprocity building a sense of the shared experience, trust and privacy.

Social Presence: Understanding the diverse social, cultural, and personal dynamics of learning together, setting and maintaining the boundaries.

Cognitive Presence: nurturing the process of inquiry: exploration, building background knowledge, deep questioning, supporting analysis and synthesis, providing opportunities for student choice, direction and leadership, and knowledge exchange

Technical Affordances: Use of a diverse range of technical tools to build community: personalization, exchange of ideas and perspectives, presentation of learning.

Doctoral Studies: Everything You Ever Wanted to Know (and Then Some)!

Moderators: Jennifer Branch-Mueller and Barbara Schultz-Jones

Panel Presenters: Melissa Johnston and Nancy Everhart, Ross Todd, Mihaela Banek Zorica

Mentors: Albert Boekhorst, Nancy Everhart, Karen Gavigan, Dianne Oberg, Ross Todd

ABSTRACT

This session was designed to help teacher-librarian participants answer the questions, “Why might I consider doing a PhD program? What opportunities might it open for me?” The School Library Research SIG designed the session to help participants learn about opportunities for doctoral studies that prepare teacher-librarians for work in the academy and in school districts and government departments. Three panel presenters described various doctoral programs and related professional development opportunities in school librarianship. After the panel presentations, several faculty advisors provided information and advice for participants in a “speed-mentoring” session.

PRESENTATIONS

Things to Consider When Making the Decision to Obtain a Doctorate Degree

Melissa Johnston and Nancy Everhart

Dr. Johnston is an Associate Professor in Educational Technology and Foundations, College of Education, University of West Georgia, USA. Dr. Everhart is a Professor in the College of Communication and Information, Florida State University, USA. This presentation on the process of undertaking a doctorate degree was led by a former doctorate student and her supervising professor to give two different perspectives on important aspects to consider.

There are many reasons why one might decide to embark on the journey to a doctorate degree. Some people are ready for a new challenge, some want to investigate an aspect of the profession, some want to educate future teacher librarians, and some want to advance their career. No matter what the reason, when making this decision there are many aspects to think about and questions to ask.

The starting point is to think about what you would like to ultimately do with the degree. Do you want to go into academia, stay in practice, or something else? There are two different options for a doctorate degree, a Doctorate in Education (EdD) and Doctorate of Philosophy (PhD). If you’re interested in pursuing a career in academia, a PhD, which is more oriented toward research and exploration of the field, is probably the way to go. But if you are looking to stay in practice and move into a leadership position an EdD might be a better option. Then it is about finding a program that offers the degree you want and expertise in your area of interest. Make sure to research universities and the faculty to ensure a good fit with your research interests.

Most doctorate programs are composed of coursework and dissertation credit hours. The coursework is to prepare you to find, analyze, and conduct research. Another question to ask and consider is the type of student you will be able to be. Can you be a full-time student? Or will you need to take courses part-time while you work? Doctoral programs are very challenging and require a great deal of time and this time commitment must also be considered in the decision and the impact on your life. Supportive family and friends can contribute to your success. Doctoral programs not only require a great time commitment, but can also entail a large financial commitment as well. Investigate the funding options available to you. Many programs have teaching or research assistantships available to students to assist with the financial obligations. There are also many fellowships and scholarships available.

Doctoral Studies and Research at the University of Zagreb

Mihaela Banek Zorica

Dr. Banek Zorica is an Associate Professor in the Faculty of Humanities and Social Sciences at the University of Zagreb, Croatia. This presentation focused on the PhD program in Information and Communication Sciences at the University of Zagreb.

The PhD program in Information and Communication Sciences focuses on research in the field of information and communication sciences and covers the majority of branches within the scientific field (Archival and Documentation Science, Information systems and Informatiology, Library Science, Communication Sciences, Public Relations, Lexicography and Eycyclopaedistics, Museology, Mass Media, Journalism). The PhD program has a strong interdisciplinary potential, anchored in the breadth of the scientific field and other PhD programs conducted at the Faculty of Humanities and Social Sciences.

There are several research focuses covering different domains in Information and Communication sciences, two of which could be of the major interest for school librarians. First is the research focus “Information practices and knowledge in the digital environment” where we research following themes: epistemological perspectives in the context of digital sources, algorithms and participatory media; knowledge in participatory environments: knowledge as collective negotiation, dialogical approaches to creating knowledge; role of established “knowledge places” (e.g., libraries, archives, schools and universities, encyclopaedias, publishers, media) in new information/media ecologies; new information practices: social components, online identities; credibility and trust in digital environments; new models in information authority (singular vs. distributed/network models); information practices in different contexts (education, science, workplace, everyday life, democracy); investigating cognitive authority in online discussions; conceptual dimensions in critical information and media literacy; comparative analysis of educational practices in media and information literacy in EU countries.

The second research focus that could be of interest to school librarians is “Challenges of codification, sharing and creation of knowledge,” covering themes such as: challenges and interconnectedness of user tagging and knowledge organization systems; visualization of scientific environments--mapping of different research areas, interdisciplinarity, linked data; recorded scientific communication in collaborative environments; collective knowledge dynamics; knowledge sharing and creation in collaborative environments; communities of practice and social networking; big data analysis and knowledge discovery in social networks.

The program is oriented towards regional students but is opened to international students as well. Instruction is both in Croatian and English, and the thesis can be written in English.

The Research Invitational at Rutgers iSchool

Ross J. Todd

Dr. Todd is Associate Professor and Chair, Department of Library and Information Science, School of Communication and Information, Rutgers University, USA.

Making a decision to engage in doctoral studies involves many interconnected aspects: choice of purpose and desired outcomes, choice of research focus, choice of institution, choice of supervisor and doctoral committee. These are significant and not necessarily easy decisions, and how do you make this choice, matching research goals, institution, program, and scholarly team. Simply put, it is likely you will be working closely with your doctoral supervisor and committee from anywhere between 4 – 8 years. This presentation will outline one approach to helping you make a sound decision: The Rutgers iSchool Research Invitational. This scholarly daylong symposium has been held annually for the last three years in the Fall Semester. It is designed for those with completed Masters degrees and /or students in their final semester interested in undertaking a doctorate, and who might be interested in the considering the School’s interdisciplinary PhD Program in Communication, Information and Library Studies. The focus of this symposium is to showcase iSchool master’s student research interests (completed, in-progress and prospective work), to network with our iSchool community and to engage in some indepth discussions with scholars who might potentially be part of the doctoral student’s dissertation committee. Participants attend a scheduled PhD Colloquium which showcases doctoral work of our current PhD students, have time to interact with current PhD students, and meet with the faculty. They present a research / scholarly poster which outlines their research interest, and engage in robust discussions about their potential research interests. Those wishing to participate complete an

application, and these are considered by a juried panel of Rutgers SC&I faculty. Those selected to participate and who attend are provided some generous travel reimbursement and up to two nights hotel accommodation. The presentation will outline specific details and provide a perspective on the value of this initiative.

MENTORING SESSIONS

Advice for Choosing and Being Successful in a Doctoral Program

Karen Gavigan

Dr. Gavigan is an Associate Professor in the School of Library and Information Science College of Information and Communications, University of South Carolina, USA.

If you are considering a doctoral program, you should begin by doing your homework on different programs: review the program website and check out its national rankings, read about the faculty credentials, and talk to graduates of the program.

Once you are admitted to the PhD program:

1. Talk to former PhD students at your university and get their recommendations for potential advisors.
2. Select a research topic that you are passionate about, not one that your advisor thinks you should be passionate about.
3. Become a member of a peer support group in your doctoral program.
4. Read everything you can (including dissertations) about your topic throughout your program of study, and begin working on your literature review early on.
5. Make as many assignments as possible relevant to your dissertation topic, so that you are building the steppingstones to your dissertation.
6. Grow your academic footprint by attending conferences or blogging in your field.
7. Sit in on other PhD students' defenses to get a feel for what yours will be like.
8. Have a layperson read your dissertation to ensure that it can be easily understood by a broad audience.
9. Grow thick skin for dissertation proposals / dissertation defenses. Your committee is only trying to help you make your work better!
10. Submit an article to a scholarly journal, in order to experience the process before you graduate.

Advice on Developing a Research Focus

Albert K. Boekhorst

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Have a clear simple 'academic question', related to general theories.

To come to this, use the 'funnel model' by starting with a very general 'problem' and make clear choices to come to your exact question.

Then rethink if you can answer your question with the outcomes of the research.

Choosing a Doctoral Supervisor

Dianne Oberg

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My own doctoral supervisor taught me the importance of choosing a doctoral supervisor who has expectations close to yours in relation to the closeness of the supervisory relationship. She and I both preferred to have a more distant and formal relationship, rather than a close and informal one. After agreeing to some basic goals and guidelines, I worked quite independently. I sent her my work when I decided I was ready for her feedback and advice. She was quick to get back to me; we met to discuss her feedback and advice; and then I went away to work on the next piece of work on my own.

My experience as a graduate coordinator taught me that students should not hesitate to talk with their supervisor about the process and content of supervision. If either is not working for the student, he or she should definitely look for a new supervisor (and should do so, following the protocols laid down by the university for this kind of change)—sooner, rather than later!

What is a PhD Program of Study Really Like?

Nancy Everhart

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Sometimes prospective doctoral students believe that their new doctoral level courses will be just like the ones in their master's degree. However, this is far from the truth. Doctoral studies are seminar based where students take on much of the presentation of materials and discussions. Readings are always focused on research and discussions of personal experience and "How I did it good" are not rewarded.

- What is the purpose of a doctoral degree?
- What goes on in doctoral level courses?
- Are you ready for this new approach to teacher-librarian studies?
- Can you accept being openly challenged and even criticized?
- Are you a self-starter and a self-motivator?

PhD Topic Selection

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For many embarking on doctoral studies, this is the starting point of a long academic career. It is often the building block for a sustained research career, so getting the focus / research problem is very important. As you think through potential topics, ask first:

- So what? Does it matter if no one ever knows about this?
- What is the value-added for your research?
- How will it contribute to the social good?
- How will it stand the time test?
- What is its relevance beyond the immediate context of the research?
- How can my research demonstrate thought leadership for years to come?
- Will it motivate you in the same way in three plus years?

Begin to ask and answer these questions early in your planning process. Craft an elevator speech early on to test your ideas on others – be humble, flexible and patient as you listen to the ideas of others. This will also help you choose something manageable, and set realistic boundaries. I remember my dissertation supervisor, following my exuberant outline of my proposed dissertation, asking me: "Now after you complete these 10 dissertations, what are your plans?" It is probably the most common piece of advice I give current doctoral students!

Building A Wall Of Digital Safety: A Passport For Learning Without Borders

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ABSTRACT

The shift in the development of the web environment from a static information repository to an interconnected network of systems, information, and users as consumers and producers has shifted the educative focus from accessing and engaging with authoritative information to a more holistic focus on both the intellectual and social wellbeing of young people as they participate and live in this digital environment. This paper examines one aspect of this digital wellbeing – that of digital safety. Given international concerns about children online, this research study sought to gather data from students themselves in relation to their conceptions and understanding of online safety, what it means to them to be safe in an online world, and the actions/strategies they use to ensure they are safe online. Some preliminary findings are presented and discussed.

Keywords: Internet Safety, Digital Safety, Digital Literacy, Unsafe Website, Information Literacy, Library Instruction

INTRODUCTION

The growth of Internet since its invention in 1993 has provided unprecedented opportunities for access to an open and borderless information world for learning, personal development and enrichment, and social networking. As of October 2016, the Indexed Web was estimated to contain at least 5.08 billion pages (Worldwidewebsite.com, n.d). In March 2017 it was estimated that across the globe there were 3,739,000,000 users, 49.6% of the world's population (Internet World Stats, n.d.). Access to this information world is often considered as a passport to 21st century learning, enabling students to transcend the traditional walls of libraries and classrooms, and to interact with diverse digital media and learners from different contexts and cultures.

Use of the digital environment has become deeply imbedded into the life of school-aged students. Accompanying the growth of this global interconnected information landscape has been considerable educational attention given to access to quality information, reading and literacy development in digital environments, engaging critically with diverse perspectives, and the developing essential of information and digital literacies to be an engaged, productive and creative learner. For example, Park (2009) argued that the benefits of internet further provided a number of essential roles in an educational context such as (1) storehouse of information, (2) communication without boundaries, (3) online interactive learning, (4) electronic/online research, (5) innovation in the new world, (6) improve interest in learning, (7) global education, and (8) information catalogues (as cited in Dogruer, Eyyam, & Menevis 2011, p. 606).

However, since that time, profound changes have taken place with increasing attention being given to not just the nature of the information and its educational use in this digital environment, but also to the context of the interaction with the information, and the outcomes and impacts of this interaction for the well being of individuals.

PROFESSIONAL ACTION

Over the last 20 years, the school Library profession has vigorously embraced learning in a web-based environment, and the focus on the development of digital and information literacy has become a mainstream endeavor. The compendium of research summed up in *School Libraries Work!* (Scholastic, 2016) highlights the central role and impact of a digital information network accessible to everyone in any

place and on any device as opposed to the traditional library website (a one-way stream of information), and the central focus on the development of digital capabilities. The New Jersey School library study: *One Common Goal: Student Learning. Report Of Findings And Recommendations Of The New Jersey School Library Survey Phase 2* (Todd, Gordon, & Lu, 2011) give evidence of this. The goal of this research was to examine the dynamics of a selected sample of effective school libraries in New Jersey to establish the key inputs (both library and school-wide inputs) that enabled the school libraries to thrive and contribute richly to the learning agendas of their particular schools. In this study, participating school libraries were chosen because their teaching faculty were engaged in a substantive number of team-based instructional collaborations with the school librarian. Data were collected through school-based focus groups that consisted of the school principal, school librarian, classroom teachers, curriculum leaders and specialist teachers. The findings show that considerable instructional attention was given to the development of digital literacy, and this involved a number of key competencies:

- Recognizing quality information in multiple modes and across multiple platforms
- Accessing quality information across diverse formats and platforms
- Participating in digital communication in collaborative and ethical ways to share ideas, work together and to produce knowledge
- Using sophisticated information technology tools to search, access, create and demonstrate knowledge in new ways
- Learning appropriate ethical approaches and behaviors in relation to use of digital technologies
- Understanding the dangers inherent in the use of complex information technologies and learning strategies to protect identity, personal information, and safety.

However, these findings also show a transition from (but not excluding) the educative focus on assessing the quality and authority of web based information and its analysis and synthesis to construct knowledge of a topic, and the ethics surrounding appropriate use of information (such as academic integrity), to an increasing focus on the operational context of digital learning and being present in a collaborative web-based environment. This includes a number of key aspects: the nature and operational context of the digital environment, the reality of multiple interactions, engagement with many people, and the social as well as the intellectual wellbeing of people connected together in digital environments. This is all about safety, self-protection, and self-preservation in digital environments.

In 2012, the Pew Research Center study titled *Millennials Will Benefit And Suffer Due To Their Hyperconnected Lives* (Anderson & Rainie, 2012) raised some considerable concerns about this operational context, particularly in terms of the perspective of some commentators that focused on the shallowness of intellectual engagement with this digital environment. Based on a random sample of 1,021 technology stakeholders and critics, the study sought to identify current attitudes among technology leaders about the potential future for networked communications in the digital environment – eliciting observations about the likely impact and influence of the Internet. The study offered some contrasting predictions, with some 55% agreeing that the future for the hyperconnected generation will be positive: positive affordances included public problem-solving through cooperative work; the effortless retrieval of data and information, and the development of new information processing skills. Negative impacts included the deployment of the Internet as the “external brain”, instant gratification, an operational setting for quick choices, lack of patience, shallow consumption of information, superficial engagement with understanding the nature and quality of information, rapid responses, and lack of awareness of the vulnerabilities of the networked digital context. As one respondent said: “there will be a premium on the skill of maintaining presence, of mindfulness, of awareness in the face of persistent and pervasive tool extensions and incursions into our lives” (Anderson & Rainie, 2012, p. 5). This early study raised some interesting dimensions of the operational context. Today, it is not just a context that centers on the constructive engagement with quality information and the construction and production of knowledge, it now also centers on the well-being of the individual in that environment, and the foundation of that can only happen when a culture of cybersecurity, security and digital safety is understood, enabled and enacted by all stakeholders and users. According to the National Cyber Security Alliance: “Realizing the

full potential of our ever-evolving digital lives can only happen when a culture of cybersecurity and privacy is the foundation of: Free-flowing content, multiple methods and platforms for communication, trustworthy commerce, and widely available and highly reliable connectivity” (2017).

In 2010, distinguished scholar Renee Hobbs, Professor of Communication Studies at the Harrington School of Communication and Media at the University of Rhode Island, and Founder and Director of the Media Education Lab, released the *Digital and Media Literacy: A Plan of Action* (2010). In recognizing the heritage of instruction already in place since the development of the Internet, Hobbs referred to “digital and media Literacy” to encompass “the full range of cognitive, emotional and social competencies that includes the use of texts, tool and technologies; the skills of critical thinking and analysis; the practice of message composition and creativity; the ability to engage in reflection and ethical thinking, as well as active participation through teamwork and collaboration” (2010, p. 17). In elaborating the essential competencies, she called for deliberate actions and interventions to address risks associated with media and digital technology. She identified three types of risks associated with the use of mass media, popular culture and digital media:

- Content risks: this includes exposure to potentially harmful content, including violent, sexual, sexist, racist or hate material;
- Contact risks: this includes practices where people engage in harassment, cyber bullying and cyber stalking, talk with strangers, or violate privacy;
- Conduct risks: this includes lying or intentionally misinforming people, giving out personal information, illegal downloading, gambling, hacking and more. (Hobbs, 2010, p. 29)

In the swinging pendulum of risk and opportunity, fear, anxiety and optimism, protection, empowerment, transformation and social growth, Hobbs calls for an expansion of thinking and competency development that clearly addresses social wellbeing as a response to the technical context. Social wellbeing revolves round the sense to which people feel a sense of belonging, social inclusion, connected and supported in an environment. Social wellbeing is a growing area of multidisciplinary research. According to Dodge et al (2012): “In essence, stable wellbeing is when individuals have the psychological, social and physical resources they need to meet a particular psychological, social and/or physical challenge” (2012, p. 230). The international Organisation for Economic Co-operation and Development (OECD) had produced a data-driven Compendium of Well-Being Indicators (2011, p. 6) and identifies individual security and safety as essential components of social wellbeing. The sophisticated operational context of the Internet creates new dynamics for giving attention to social wellbeing, particularly in the wake of burgeoning growth of cybercrimes enabled by the development of the internet. In its Cybercrimes Report (2016) Cybersecurities Ventures, an international firm reporting and publishing cybercrimes, reports that the burgeoning growth of both the number and scale of cyber crimes and attacks has reached an unprecedented level. The nature of these include:

- System attacks, such as computer viruses (including worms and Trojan horses), hacking and denial of service attacks that shut down or misuse websites or computer networks, and electronic vandalism (such as defacing a website) or sabotage.
- Cyber theft, where computer access is used to steal money or other things of value from individuals and organizations. Forms of cyber theft include embezzlement, ATM and consumer fraud, theft of intellectual property, and theft of personal or financial data, file sharing and piracy, counterfeiting and forgery.
- Cyber security incidents, such as spyware, adware, hacking, phishing and other internet scam, spoofing, ping, port scanning, using fake emails to get information from internet users, and theft of other information, regardless of whether the breach was successful.
- User target attacks, including misusing personal information (identity theft); invasion of privacy, harassment and cyberbullying (such as mean text messages or emails, rumors sent by email or posted on social networking sites, and embarrassing pictures, videos, websites, or fake profiles, distributing child pornography, tracking and luring; spreading hate and inciting terrorism; grooming: making sexual advances to minors (Hackerpocalypse Cybercrime Report, 2016).

In some of the emerging discourses around social wellbeing, attention is now being given to the concept of digital wellbeing, defined as the “capacity to look after personal health, safety, relationships and work-life balance in digital settings’ (JISC, n.d.). These include aspects such as:

- Using personal digital data for positive wellbeing benefits
- Using digital media to foster community actions and wellbeing
- Acting safely and responsibly in digital environments
- Managing digital stress, workload and distraction
- Acting with concern for the human and natural environment when using digital tools
- Balancing digital with real-world interactions appropriately.

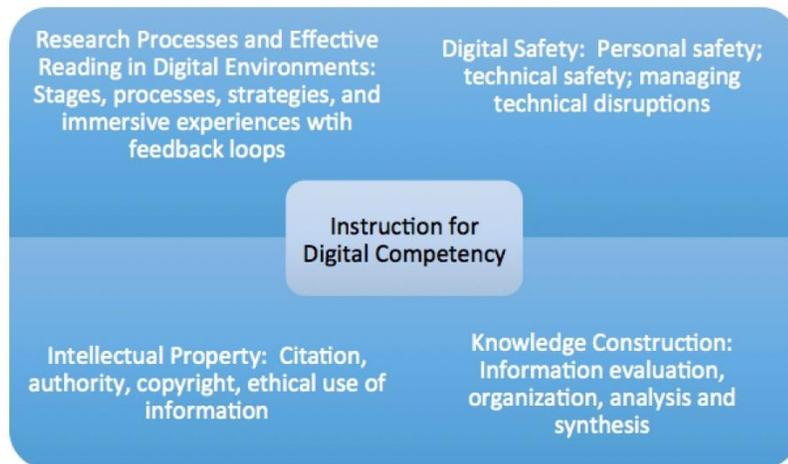
The increasing engagement of young people with the digital world brings the questions of social wellbeing and digital safety into prominence. Lenhart (2015) reports that 92% of teenagers significantly use the internet daily through a variety of devices. Reports such as those provided by the Pew Research Center and others build on earlier reports such as the Internet Society (2012) confirm teens’ preference to be connected through social media platforms in which they can interact, chat, and communicate with their friends. It is a social world and a social reality for them, and it is in their pockets.

And to today, key questions center on what does it mean to be safe in an online world, what is the nature of online risks faced by children and teens, and what are the technical and educational solutions to ensure online safety as a passport to the global information world? This is increasingly important as they make intense use of mobile devices, the emergence of the ‘selfie’ culture, and their potential to create their own problematic contents.

Much of the scholarship on online safety comes from parents’ perspectives, educators, and educational policy makers. Current research on internet safety has predominantly focused on cyberbullying, sexual solicitation and unwanted exposure to sexual content, the role of privacy, parent and community and parent involvement, and preservation of online privacy (Farukh, Sadwick & Villasenor, 2014). For each of these, they provide an analysis of scholarly literature to identify definitions, prevalence, motives, prevention/coping strategies, and where more work is needed. In particular, they encourage more research on how the shift to the use of mobile devices impacts online safety, and the extent to which mobile technologies may be “deviance amplifying” (2014, p. 10). A substantive body of literature also exists on parental perception of children and teen’s safety online, and the provision of strategies on parental and school-based guidance for online safety. Some notable examples include:

- National Parent Teacher Association (PTA) USA <http://www.pta.org/parents/content.cfm?ItemNumber=3005>
- Australian Government Department of Education and Training: Student Resilience and Wellbeing: Cybersafety in schools: <https://www.education.gov.au/cybersafety-schools>
- UK Council for Child Internet Safety (UKCCIS)
<https://www.gov.uk/government/groups/uk-council-for-child-internet-safety-ukccis>

The qualitative research presented here seeks to understand the concept of online safety from the perspective of children and teens themselves, rather than from the authoritative stances of providers, which dominates the literature. It emerged out of an evidence-based practice project undertaken in a private school in Qatar in 2016 that sought to develop a digital literacy instructional strategy across the school, based on a survey questionnaire to 148 students in Grades 5 – 10 (Medina & Todd, 2016). Data were collected through a self-reported responses to 28 items using a modified and extended checklist, as well as open-ended questions, developed by the Open University UK titled “Being digital: Digital literacy skills checklist”. The findings of this study identified five categories of help needed from the school library centering on building understanding and competencies in relation to: Intellectual property, Information organization, Information analysis and synthesis; and Digital reading, Research processes, and Internet safety. Accordingly, the evidence-based action plan presented here was developed. This has formed the basis for instructional interventions during the 2016-2017 year. The increasing attention being given to digital safety has prompted us to begin some exploratory work on this aspect.



From Digital Confidence to Digital Competence: An Evidence-Based Action Plan

Figure 1: Evidence-Based Action Plan

In order to understand more deeply the complex arena and dynamics of digital safety from the perspective of the students, the following study was undertaken.

RESEARCH QUESTIONS

The research program of which this paper is an initial part seeks to understand how students define and describe online safety, what it means to them to be safe in an online world, how they recognize and determine, if at all, whether a website is safe or not, and what are the actions/strategies they use to ensure they are safe online. The goal of this research is to provide an evidence-based framework for the development of learning experiences, lesson plans and instructional interventions so students can learn to engage in safe digital practices, rather than simply being told by significant others. In particular, it wanted to build this instructional program on the various challenges encountered by students in their online activities and to provide assistance on how they can be equipped and become competent online users.

BACKGROUND TO COUNTRY CONTEXT RESEARCH

We sought to collect the data in curricular-based school settings in two countries. The schools have different curriculum structures and pedagogical approaches. Schools in the Philippines are administered and managed by the Department of Education, and classes are typically 40-60 in size, while the school in Qatar is an International Baccalaureate based curriculum, which is run by two partners between the Ministry of Education and Higher Education in Qatar and an educational management group in Spain. Classes in this school are typically 20-25 in size. Both of these countries have established digital safety programs, and the goals and approaches to each of these are overviewed here.

QATAR'S CYBER SAFETY INITIATIVE

As of June 2016, Qatar is ranked second in the Middle East Countries in terms of number of internet users, with 94% population penetration (Internet Growth Statistics 1995 to 2017, 2017). It is believed that 98% of students from primary and secondary in this nation have access to the internet. In addition, more than 90% of schools in Qatar confirm that students have internet connection at home as one of the education-related resources for their school homework or projects (Evaluation Institute, 2011). In Qatar, a cybersafety learning program called "Haseen" was initiated by the Ministry of Transport and Communication in collaboration with the Ministry of Education and Higher Education in 2015. This program promotes the importance of internet safety and augments security awareness among students from Grades 1 to 12 with much emphasis on becoming effective digital competent users in support of the

Qatar National Vision 2030 (Varghese, 2015). Its primary goal is to provide digital contents, educational activities, learning resources, references and other related materials that teachers are able to use and integrate in their classroom curricular-based instructions that enhance students' capacity to become effective, responsible and safe users in a global networked society.

Teachers and staff members of the school community can access the digital portal using the log-in credentials provided by the Ministry. The site is classified into different categories such as parents and teachers where users can download a wide range of approved learning resources, which have suitable corresponding grade levels and learning objectives. These resources can be integrated into classroom and library initiatives.

PHILIPPINES DIGITAL INITIATIVE

To address the current issues on digital safety, particularly in relation to protecting children online, the Philippines Department of Education, in connection with Stairway Foundation, a non-profit organization, has published 'CyberSafe' project manuals that provide various lessons for classroom teachers tailored for Grades 5 to 6 and secondary students Grades 7 to 12 (Stairway Foundation, 2015). Advocating to ensure students' safety in an online world, this project seeks to assist students to determine different online risks and ensure online privacy involving cyber bullying, sexting, and child pornography. It is also stipulated through the Philippine Constitution Republic Act No. 9775 (known as "Anti-Child Pornography Act of 2009) which recognizes the right of every child to be protected in any forms of exploitation from physical as well as digital environments (Senate and House of Representatives of the Philippines in Congress, 2009).

A report based on a survey conducted by the Stairway foundation in the Philippines in 2013 documents considerable concerns regarding children's online behavior, aged from 7 to 16 years old. The study found that:

- 30% of the students were willing to communicate with strangers online;
- 20% spend their food allowance for internet access and add strangers in social media; 50% use public social media;
- 10% understand someone "who strips naked in front of a webcam in exchange for cellular load or money";
- 60% visit pornographic links via Social Media;
- 50% mention that never had any conversation about cybersafety;
- 40% "know someone who has been a victim of cyberbullying" (Stairway Foundation, 2013).

This survey identifies the needs to be addressed in the Philippines in helping users to become effective users in a digital networked hub. Based on these disturbing statistics the Cybersafe project in the Philippines has recommended a range of strategies for students to manage their online behaviors and be safe and protected. This set of strategies is significant in that it emerges directly from the findings of a study gathering data directly from the students.

Challenges	Useful tips
Chatting with online strangers	<ul style="list-style-type: none"> • Avoid chatting online with online strangers • If you do, make sure you feel safe with the conversation • Block the stranger if you feel comfortable
Using food allowance for net access	<ul style="list-style-type: none"> • Use your food allowance to buy healthful snacks and meals • Ask your school to provide net access for students
Having public social media accounts	<ul style="list-style-type: none"> • Make your social media accounts private • Use a blog or a second account to share general stuff safely without exposing your private information
Adding strangers online in Social media	<ul style="list-style-type: none"> • Avoid adding online strangers to your social media account • Use the "Friends list" function on Facebook. Put all online strangers onto "restricted" list

	<ul style="list-style-type: none"> • <i>Use the individual privacy setting available for each post</i>
Recognizing someone who strips naked in front of webcam in exchange for money or load	<ul style="list-style-type: none"> • <i>Block all persons who make such suggestions</i> • <i>Don't be a victim of exhortation or further abuse</i> • <i>Tell a trusted adult.</i>
Seeing pornographic links via Social Media	<ul style="list-style-type: none"> • <i>Don't click! You might get virus or malware</i> • <i>Internationally clicking on illegal sites might get you in trouble with authorities</i>
No one has talked to them about cybersafety	<ul style="list-style-type: none"> • <i>Talk to children about online safety</i> • <i>Educate yourself and stay aware of online risks</i> • <i>Make sure children know you are a trusted adult.</i>
Knowing someone who has been a victim of cyberbullying	<ul style="list-style-type: none"> • <i>Do not respond to the cyberbully</i> • <i>Take screen shot of the offending posts</i> • <i>Block the sender</i> • <i>Tell a trusted adult immediately</i>

Table 1: Strategies for Philippines Cybersafe Project

The Department of Education has continually been collaborating with their partnership non-profit organizations in developing and improving this manual to further support the development of curriculum, with a focus on digital safety in the Philippines. The strategies listed above were part of the framework for the digital literacy sessions discussed below.

METHODS

The sample of this study was students in Grades 5 to 10 from public and private schools in Qatar and Philippines, and data were collected in June-July 2016. Approximately 425 students participated in the study. The participating schools accepted a general invitation through city education division offices, allowing students to engage in a digital literacy instructional program. There were two general sessions conducted in one school in Qatar during regular library classes scheduled for students, and eight sessions in three public schools in the Philippines. The sessions were 40 minutes each (a regular class period). The sessions had a general theme of digital awareness and safety, and were very practical in nature, providing some practical strategies on how to become responsible information users as they engage in the online environment. Due to limited budget and lack of facilities especially in the Philippines, training opportunities are limited, and especially so in relation to training the students. The sessions were provided free of cost, and they were welcomed by participating teachers and school librarians. As an initial part of the sessions, students participated in groups where they had opportunity to brainstorm ideas about digital safety and unsafe websites. They were asked to record their output as a collective mind map, combining and recording similarities mentioned in their group discussions. Students participated enthusiastically in this exercise. A sample mind map was given prior the brainstorming activity in order to guide them with brainstorming their ideas. Groups were self-chosen, and varied in size – from 5 per group to 12 per group. A mind map is a diagram where participants identify concepts / key terms and organize them in some kind of structured, perhaps hierarchical way. Students were provided with blank recording sheets, and were simply asked to create a map of the words that showed their ideas around unsafe websites.

Data Analysis and Some Preliminary Findings

38 mind maps were collected as a result of the group activity. Some examples of mind maps created by students are shown here (transcribed from recording sheets):







Figure 2: Sample of Mind Maps Created by Students

The words indicated on each mind map were listed, and grouped thematically. Overall, the participants listed 345 words / terms. A simple listing of these in alphabetical order reveals some patterns. 11 most frequently occurring words (or slight variations on a word such as “ads” and “advertisements”) are shown in Table 2:

Term	Frequency
Virus	19
Porn / pornographic / pornography	16
Pop-up /pop-ups, pop-up adds	14
Ads / Advertisements	14
Hack	9
Error	9
Fake / False	8
Malware	7
Scam / scams	7
Deep web	7
Bad (as in images, messages, videos and words)	7

Table 2: Frequency of Words / Terms

These words comprise 30% of all the words / terms listed by the participants. The individual terms / words were then grouped into the six categories that represent the thematic summary of responses made by students:

- Category 1: Sexual and Violent contents;
- Category 2: Malware Pop-ups and Spam;
- Category 3: Privacy and Security Issues;
- Category 4: Technical errors/Virus/Auto Download;
- Category 5: Social Media;

Category 6: Search Engines.

To interpret the data, the frequency of terms and its percentage value was identified in order to provide equal weight to each group responses. This is because some groups only wrote three terms while some have more than twenty terms. It could also be seen here that the groups' responses considerably range from 3 to 22 terms on the mind map. All the number of responses that each group wrote for each category were averaged, in order to find out which category generally describes what unsafe website are, based on students' knowledge and perception. By categorizing the words / terms and understanding the variation both in terms of terms and the breadth of students' knowledge, we wanted to support the larger goal of this study to make in-depth interpretations that helps educators to focus on strategic approaches and to design instructional digital literacy based on what they should know about digital safety.

Group	Sexual and Violent contents	Percentage	Malware Pop-ups and Spam	Percentage	Privacy and Security Issues	Percentage	Technical errors/Virus/Auto Download	Percentage	Social Media	Percentage	Search Engine (Reliable/Unreliabl	Percentage	Total	Percentage
	1	%		%	3	%	4	%	5	%	6	%		Total
1	0	0%	3	50%	2	33%	1	17%	0	0%	0	0%	6	100%
2	1	17%	1	17%	3	50%	1	17%	0	0%	0	0%	6	100%
3	5	63%	0	0%	2	25%	1	13%	0	0%	0	0%	8	100%
4	1	10%	2	20%	1	10%	6	60%	0	0%	0	0%	10	100%
5	1	17%	3	50%	1	17%	1	17%	0	0%	0	0%	6	100%
6	0	0%	1	9%	1	9%	1	9%	4	36%	4	36%	11	100%
7	1	17%	1	17%	1	17%	3	50%	0	0%	0	0%	6	100%
8	13	93%	0	0%	0	0%	0	0%	1	7%	0	0%	14	100%
9	6	67%	1	11%	0	0%	2	22%	0	0%	0	0%	9	100%
10	1	13%	4	50%	2	25%	1	13%	0	0%	0	0%	8	100%
11	0	0%	4	50%	2	25%	2	25%	0	0%	0	0%	8	100%
12	2	25%	1	13%	0	0%	3	38%	0	0%	2	25%	8	100%
13	1	10%	0	0%	0	0%	0	0%	7	70%	2	20%	10	100%
14	0	0%	0	0%	0	0%	0	0%	6	75%	2	25%	8	100%
15	1	13%	2	25%	0	0%	4	50%	1	13%	0	0%	8	100%
16	0	0%	1	20%	1	20%	3	60%	0	0%	0	0%	5	100%
17	3	33%	2	22%	1	11%	3	33%	0	0%	0	0%	9	100%
18	6	50%	3	25%	0	0%	3	25%	0	0%	0	0%	12	100%
19	2	15%	2	15%	4	31%	3	23%	0	0%	2	15%	13	100%
20	1	11%	1	11%	1	11%	6	67%	0	0%	0	0%	9	100%
21	5	71%	0	0%	0	0%	1	14%	0	0%	1	14%	7	100%
22	2	20%	1	10%	0	0%	0	0%	6	60%	1	10%	10	100%
23	0	0%	0	0%	1	33%	2	67%	0	0%	0	0%	3	100%
24	0	0%	2	25%	1	13%	5	63%	0	0%	0	0%	8	100%
25	2	50%	0	0%	2	50%	0	0%	0	0%	0	0%	4	100%
26	0	0%	0	0%	1	14%	1	14%	3	43%	2	29%	7	100%
27	0	0%	1	17%	0	0%	1	17%	1	17%	3	50%	6	100%
28	3	25%	4	33%	0	0%	2	17%	3	25%	0	0%	12	100%
29	0	0%	0	0%	0	0%	6	100%	0	0%	0	0%	6	100%
30	1	9%	2	18%	2	18%	3	27%	3	27%	0	0%	11	100%
31	2	18%	3	27%	1	9%	3	27%	2	18%	0	0%	11	100%
32	3	38%	2	25%	1	13%	1	13%	0	0%	1	13%	8	100%
33	1	8%	1	8%	1	8%	3	23%	4	31%	3	23%	13	100%
34	1	8%	0	0%	2	17%	3	25%	1	8%	5	42%	12	100%
35	3	21%	5	36%	2	14%	3	21%	1	7%	0	0%	14	100%
36	1	10%	3	30%	1	10%	2	20%	2	20%	1	10%	10	100%
37	2	29%	1	14%	1	14%	2	29%	1	14%	0	0%	7	100%
38	5	23%	11	50%	1	5%	3	14%	2	9%	0	0%	22	100%
	76	22%	68	20%	39	11%	85	25%	48	14%	29	8%	345	100%

Table 1: Summary of Categorization in the mind map activity

Category 1: Sexual and Violent Contents

76 words related to Sexual and Violent Contents were written by the students as they participated in the activity and described what unsafe websites were. For instance, some students listed down specific pornographic websites that online users are able to explore and navigate in an internet world. It can also be seen in the data that students were also aware of the restricted age limit that normally pops up in the screen when somebody attempts to access it. Lastly, the word “porn” seemed to be the most used description that students associated with unsafe website and links.

Category 2: Malware Pop-ups and Spam

According to TechTerms, Malware, short term for “malicious software”, is defined as “software programs designed to damage or do other unwanted actions on a computer system” (n.d.). In essence, this refers to the viruses, worms, Trojan horses, and spyware that could destroy or damage individual computer files if inflicted. In the data, there were 68 words relating to Malware Pop-ups and Spam. Students express that “pop advertisements” are usually seen in a variety number of websites that have been affected by computer viruses. Noteworthy is that some inputs included money matters such as “scamming promos”, “money offers”, “fake promotions”, “fake donations”, “free giveaways” and “online buy and sell”. These terms seemed to be prevalent terms /d phrases that students use to determine the quality of content and information on the website.

Category 3: Privacy and Security Issues

“Private and Security Issues” is ranked as the second to the least in the categories with 39 frequent words. One group wrote “absence of https//” in their mind map as one way to recognize the safety of the website, which actually is an important tip that Mike Schema pointed out in his article entitled “Web Security: Why You Should Always Use HTTPS”. He emphasized that “the encryption within HTTPS is intended to provide benefits like confidentiality, integrity and identity” (2011). Moreover, the word “Hack” was the most repetitive word amongst the students when talking about online privacy and security issues. Some words namely: “Unknown sites”, “.com”, “unauthorized site”, “no safety lock” were also words that students presented in their mind maps.

Category 4 Technical errors/Virus/Auto Download

Category 4 relating to Technical errors/Virus/Auto Download was ranked first on the list with the highest frequency of 85 words / terms or .25 mean among all the categories. It seems that most of the respondents associate unsafe websites based on technical glitches, errors viruses, and auto download files that they have encountered while being online and searching on the web. This is followed by Category 1 involving Sexual and Violent Contents with the frequency of 72 words or 0.22 mean. According to statistics provided by Guardchild’s website, the largest group of internet porn users is children (Internet Statistics, n.d.). One notable point here is that Group 8’s responses mainly center on two categories: Sexual and Violent contents, with 0.93 mean while 0.07 for the social media. Likewise, responses from Group 23 center only for two categories as shown above. Students from Group 29 provided a set of terms that merely tackle category 4.

Category 5 Social Media

The mind maps showed that most of the popular social media sites such as Facebook, Twitter, Instagram, Skype, Youtube, and blogs were thought to be unsafe websites, with 48 responses from participants. The maps also indicate “dating sites” as a prevalent common term. In fact, Enough is Enough, a non-profit organization, published an article about the dangers of social media and its negative effects in the lives of teenagers (Van Ouytsel, J., Ponnet, K., & Walrave, M. (2014). This article also emphasizes the risks and privacy of choosing a public profile where everyone can view all the posts related to this account. In addition, “teens with public profiles are more likely to receive messages from strangers and be harassed by peers” according to the Teen Internet safety survey conducted by Cox Communications in 2007.

Category 6: Search Engines

“Search engines” under category 6 takes the last place with having 29 responses. In these responses, students identified “Answer.com” “Google, “Yahoo” and “Wikipedia” as unsafe websites. During the discussion of the activity, one student explained that all the unsafe websites are searchable

through these engines that anyone, regardless of age, can access it, which could be a good point of new insights for future studies. In an early study initiated by Edelman (2006), he identifies the safety of leading search engines using the “Siteadvisor’s automated web site rating: “MSN search results had the lowest percentage (3.9%) of dangerous sites while Ask search results had the highest percentage (6.1%). Google was in between (5.3%)”. Risks and dangers were also found on the common keywords that young people and novices use as they get online.

Some Further Commentary

One of the key findings to date is that students do have a very specific knowledge about unsafe websites, at least shown in the general topical categorizations that have emerged. This is shown in the specificity of technical terms used, the reference to specific websites, and, in addition to these, the ways that access can be enabled, for example “auto-downloads”, “attachments”, and “fake surveys”.

What is strongly evident in the analysis of the words/ terms used is the specificity of technical terms that are already part of the vocabulary of the students, for example: Deep Web found in 7 of the group mind maps, which is reference to the invisible web content that is not indexed by standard search engines; and Torrent, a file that contains metadata about files that are to be distributed / shared, and which contains information that can initiate download of content such as pirated materials. In relation to the references to “torrents”, there was also one group’s reference to “Kick Ass Torrents”, the directory, abbreviated as KAT, which is a directory for torrent files. Other technical terms included “clickbait”, the term describing the web use of curiosity-driven thumbnails and headers that initiate further seeking; cracked games / cracking websites which appear to focus on password cracking tools; “Omegle”, a free chat site enabling people to talk via webcam to complete strangers without any signup required. The single reference to “Black” is possibly a reference to the Darknet, Deepnet, or the Hidden web.

Overall, there seems to be an awareness of some of the complex layers of the web, not just in terms of the layers surrounding the “dark web”, but even a mystery / urban legend, expressed by reference to “Marinas Web”.

There were also single references to many different individual terms. One group mentioned “Gumblar”, a malicious JavaScript trojan horse file that redirects a user’s Google searches, and then installs rogue security software. There was also a single reference by one group to the website xnxx.com, and explicit pornography site with videos, live chat and connections, as well as two references to “youjizz”, another website that provides pornography videos, live sex and meeting opportunities. One entry “BEEG” is reference to another pornography site (beeg.com) providing similar content, as well as “niche” content (eg underage). There were three references to “Wattpad”, a diverse online story telling community with user-generated content submitted by participants. Of note here was the one reference to “Wattpad SPG”, the section of wattpad.com that is labeled as “My 'hot shots collection' stories”, short stories that contain graphical sex scenes. There was also mention of “Chi anime” a source of free anime movies, including an “erotica” category.

The data also present many curiosities. Two groups mention “government site(s)”, with one group connecting these to the “deep web”. What are the connections here, and the deeper understanding being presented here? At this point we do not know. Students also specify what we might consider standard, everyday sites and access modes, such as “Bing”, “Facebook”, “Google”, “Twitter” and “Gmail”. Why? We do not know. This is the starting point of the research agenda - and next is to unpack the conceptions captured in the mind maps to get to the heart of their understanding about unsafe websites, and indeed the practices they engage in to be safe.

We deliberately did not provide the students with any definition of what an “unsafe website” was. We wanted the conceptions to emerge from the data. However, the words / terms represented in the mind maps and in the categorizations do tell only part of the story. Predominantly, the terms / words used make reference to aspects of access, technical structures, and potential for technical harm (i.e. to the computer) and far fewer references to sites where self is potentially harmed (although there were some). Students seem to know the technical, but not the personal dimensions around unsafe websites. From the perspective of the data collected here, the students do not see themselves as part of the “unsafe”. It did not seem to register to them that they are part of the digital equation of safety. There was no reference to

their interactions with strangers, their role in creating their own privacy boundaries, cyberbullying indicators, and managing offensive posts, interactions and images. In essence, “unsafe” was predominantly seen as a system problem, of which there seems to be some level of awareness, rather than a personal – social – interaction problem. One of the most predominant themes that comes up in the authority-driven conceptions (such as by parent groups, educational associations and teacher groups) is the notion of safety built around understanding the active role of self in the digital environment) and identifying the indicators of interactions that signal unsafe. There was only one reference to “fake Identity” and no reference to “strangers”.

The absence of the “stranger danger” set of indicators is clearly worthy of further deep investigation. In the context of the proliferation of mobile devices, understanding the extent to which students may be using a range of apps to connect with people, and their capacity to establish whether this is friend or foe is an important direction. While it is easy to stress to young people not to interact with strangers, there is need to understand how students make this judgment and determination, if at all, and whether they see that there is some kind of risk – digital danger. Given the centrality of social media, there was no sense of the staying power of social media – the ‘forever potential’ of social media and the capacity of social media content to be archived, accessed and used in positive and negative ways by colleges, potential employers and even insurance and medical agencies.

CONCLUSION

The Continuing Story

With the preliminary findings and commentary presented in this paper, the longer term goal is to consider how these findings impact professional practice and instructional interventions, not only for school libraries but for all libraries that are committed to addressing the needs of 21st century skills as well as helping students in becoming responsible citizen of information users in an online world. Safe access to quality information, and access and use of information that protects both self and systems is seen as a passport to a global learning environment – learning without walls, learning without the sense of personal or system safety being compromised. While the findings here from 425 students who have recorded their ideas in relation to unsafe website present some knowledge of the safe / unsafe landscape of the web, the perception of unsafe websites as being part of the technical environment, rather than actions on their part, raises some key questions around the nature of instruction and educational intervention. How do we educate young people to ensure their internet safety as they engage in borderless digital learning? What does it take? How do we build their understanding about the dangers and risks that could significantly bring negative consequences to their learning growth in ways that empower them to take action – to protect both self and system. This is the question we hope to follow through at the IASL conference. In the digital “selfie” culture, the protection of self by self emerges as a significant challenge.

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Portuguese School Libraries Best Practices Crossing Borders

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ABSTRACT

In Portugal, the School Libraries Network program (SLN) has been promoting and sharing best practices through the Web as a way to illustrate the excellent work many libraries do and to inspire others that are in different development stages. These are innovative, consistent, systematic and proven experiences, able to reveal the full use of library resources and potential beyond the four walls of classrooms and the boundaries of schools. The projects and activities focus on different areas: reading, information, media, ICT, curriculum collaboration..., and are disseminated through short videos, synopses, and supporting materials. The work done by the Portuguese school libraries has undoubtedly influenced the progression of reading, evidenced in the recent PISA results (2015). Three years after extensive promotion of these good examples, we can conclude that this has been one of the most effective SLN strategies for the ongoing development of libraries and their impact on learning.

Keywords: School Libraries, Portugal, Best Practices, Strategies, Dissemination, Impact

INTRODUCTION

The School Libraries Network has been growing in Portugal since 1996. Throughout the country, there are school libraries with good or excellent conditions and the coverage is almost complete. They have been installed in the schools of all levels of basic education, with the exception of cases where there isn't a room with the minimum required area.

Since 2006 the legislation concerning school libraries contemplates the existence of teacher librarians. So, in each school cluster there can be one, two or three teacher librarians. These are teachers who must have training in the area of school librarianship and technology and who are legally obliged to update their professional training each year.

This situation has allowed SLN to focus on the quality of school library work. School libraries with excellent programs and projects are distinguished with a stamp of quality – *worthy ideas* - and given extra financial support.

In 2013 the SLN began to disseminate best practices in its webpage, which has proved to be an effective strategy to motivate other school libraries to adopt them with the necessary adaptations to their contexts.

Together with the existence of teacher librarians and of clear, coherent and demanding guiding documents, this initiative has contributed to an increasing importance of libraries in schools, due to their impact on reading habits and learning.

Reading and Literacy – Historical Perspective

In 1974, when the Portuguese revolution (the Carnation Revolution) put an end to over 40 years of an authoritarian dictatorship, Portugal was in a very poor condition from several points of view, namely in what concerned its illiteracy rate. In the beginning of the seventies, education was mandatory only until the 6th grade and in the previous decades it was even worse.

After the revolution, an enormous effort was made to bring every child to school and to enlarge free compulsory education to the 9th grade. Presently, it is compulsory until the 12th grade.

Table 1. Illiteracy rate evolution: 1960-2011

Illiteracy rate, according to the Census: total and by sex - Portugal

Percentage of resident population aged 10 and over who does not know to read or write

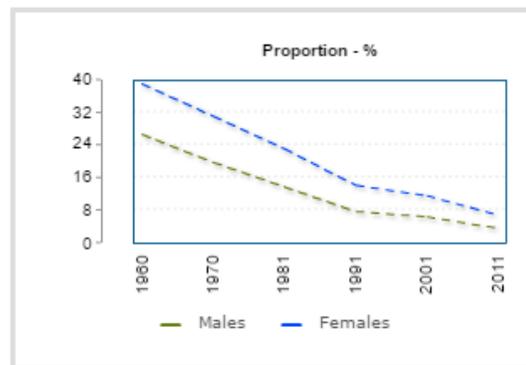
Proportion - %

[see more](#)

Years	Sex		
	Total	Males	Females
1960	x	26.6	39.0
1970	25.7	19.7	31.0
1981	18.6	13.7	23.0
1991	11.0	7.7	14.1
2001	9.0	6.3	11.5
2011	5.2	3.5	6.8

Sources/Entities: INE, PORDATA

Last updated: 2015-06-26



Sources/Entities: INE, PORDATA

It has been a rewarding effort, but there is still a lot of work to be done.

Twelve years after the revolution the Public Libraries Network was created and 10 years later, in 1996, the SLN was born. Another 10 years passed and the country was still in need of dealing with the lack of reading habits of the population. The National Reading Plan was then created and school libraries were the structures that guaranteed its implementation in schools.

These measures are considered by the OECD Pisa experts to be important factors in the progress of Portuguese results in recent PISA tests (2015), in which the Portuguese students succeeded in exceeding significantly, for the first time, the average of OECD countries and stood out among those with best performances in reading.

This was very encouraging and means that we have to carry on and improve the work of school libraries. The National Reading Plan was extended for another 10 years and with a wider target now: besides K12 schools, university students and adult population.

Chart 1. The position of Portugal in OECD PISA 2015

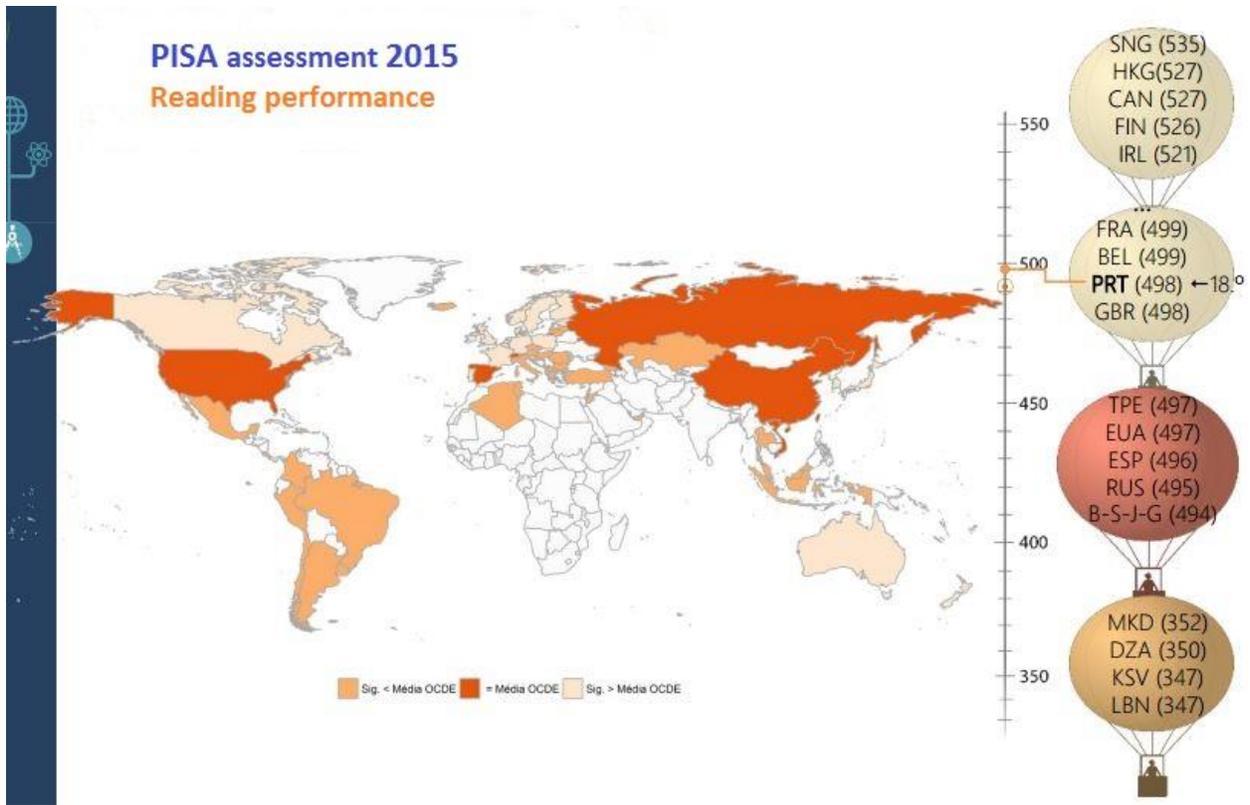
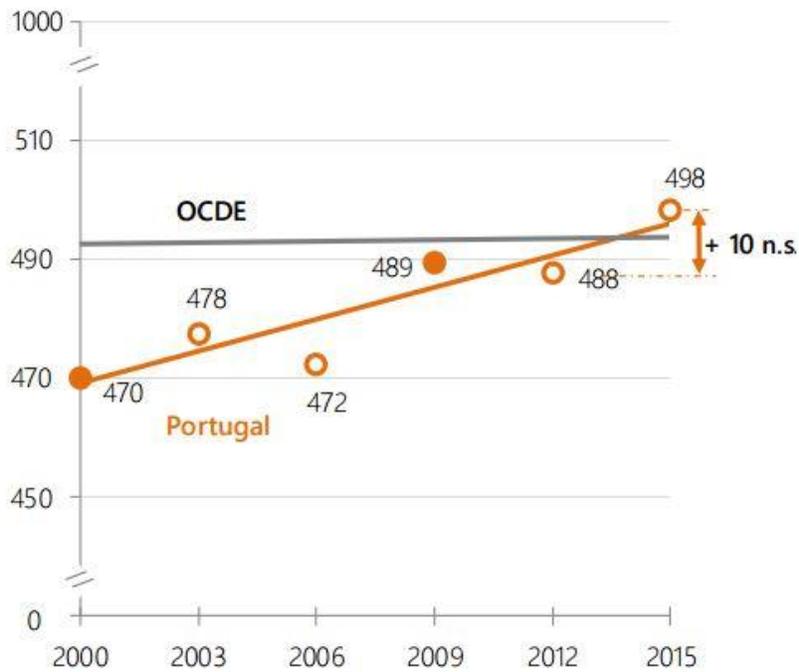


Chart 2. Evolution in reading



HOW SCHOOL LIBRARIES CONTRIBUTED TO THIS PROGRESS

Guiding documents

Presently, SLN has three main documents that provide guidance to the work of school libraries: the *2014-2020 Strategic Framework*; the *School Library Evaluation Model* and the learning standards *Learning with the school library*. They are linked among them, and very coherent. They establish high standards for school libraries and stimulate a process of continuous growth and improvement.

The *Strategic Framework* produced by the SLN defines a set of quality standards for school libraries to achieve within the time frame of 2014-2020, determined by the Europe 2020 Strategy that Portugal and the Ministry of Education subscribed. The establishment of these standards guides the action of school libraries.

The areas of the *Evaluation Model* (A. Curriculum, literacy and learning; B. Reading literacy; C. Projects and partnerships; D. School library management) proceed from the standards established in the *Strategic Framework* and it is expected that, at the end of the evaluation cycle 2014-2017 all the evaluated libraries present an evaluation equal to or higher than 3 (in a scale of 1 to 4).

Finally the main objectives of *Learning with the school library* are to associate reading, media, technologies and working with information in curricular or extracurricular learning situations, through the collaboration of school libraries with teachers/educators and to provide school libraries with a guidance tool that can contribute to the extension of their role, influence and impact on educational success.

This consistent guidance has proved to be of great importance in the process of continuous improvement of school libraries and their impact on student reading performance and learning.

Networks within a Network

However, the existence of good guiding documents would not be enough to explain the success of Portuguese school libraries. The fact that libraries form a network is a decisive success factor. On the top of this network is a central office in the Ministry of Education led by a national coordinator assisted by a small number of technical advisors. At an intermediate level there are around forty regional coordinators who accompany and monitor the work of school libraries in districts and municipalities. These regional coordinators guarantee that teacher librarians really do understand and put in practice the central orientations and provide training and support. This way, it is possible to maintain an evenness in the level of work performed by school libraries that otherwise would be impossible.

At the municipality level there are smaller libraries networks, led by the regional coordinators and the public libraries, in which all teacher librarians take part. These regional networks implement several collective initiatives, namely thematic meetings, training and cooperation projects, involving schools, public libraries, museums and other community institutions.

This is a very sustained and sustainable network, which makes every problem rather easier to solve.

Stimulating and Spreading the News

Despite being a network, one of the problems we have met is the lack of information each library has about the work done by other school libraries. Every library has its online channels, every regional network has a website, but, nevertheless, that didn't look to be enough for each one to know about what others are doing and how they are doing it. In most regional meetings, some of the schedule is dedicated to good practice sharing and it has become usual to invite teacher librarians who develop excellent projects in the area related to the meeting's theme.

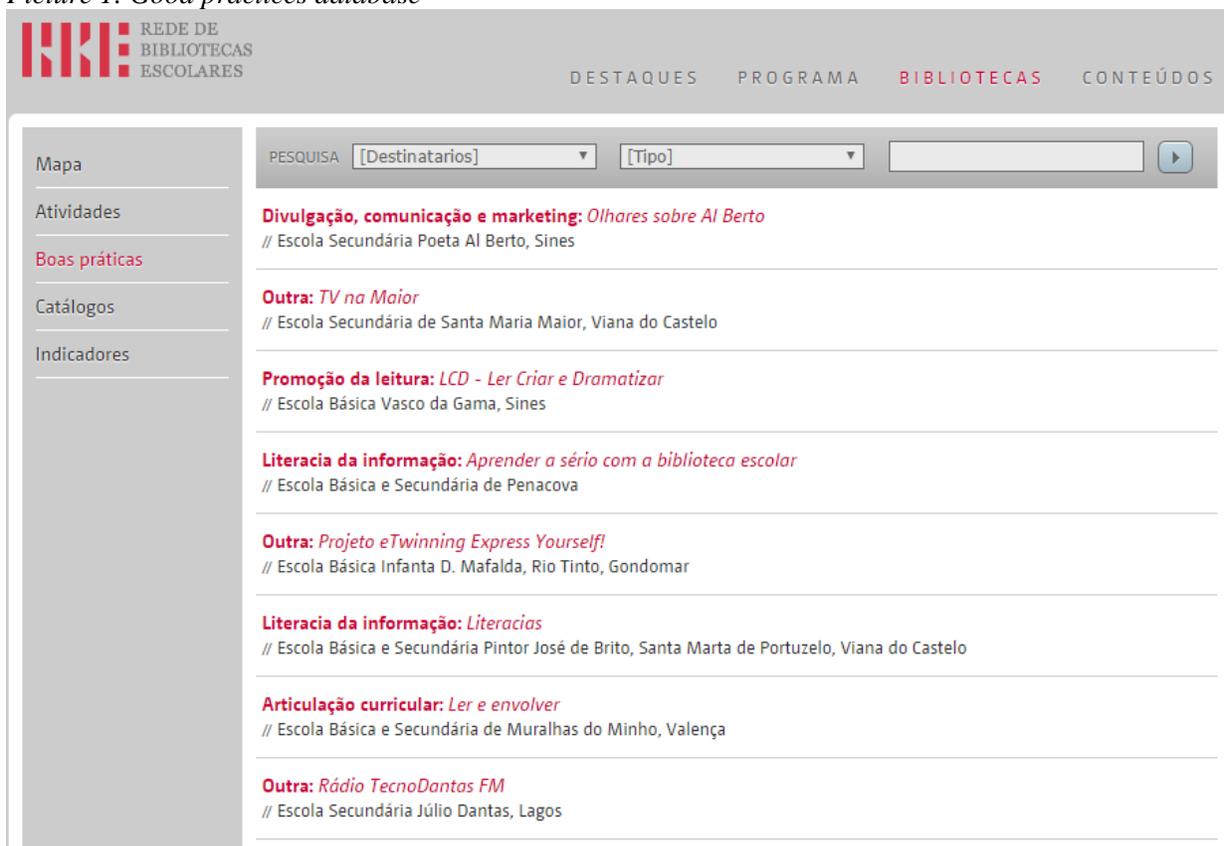
So, in 2013, the SLN decided to start disseminating best practices in its webpage. Regional coordinators were involved in the election of the practices to be publicized, following a given format. School libraries have to fill in a form with the description of the practice and send all the materials they consider relevant. They also produce a presentation video. Practices are organized according to different categories: curriculum collaboration; reading; information literacy; extracurricular activity support; marketing and advocacy; digital training; playful activity; and so on.

It is also considered the main target users of each practice: students; students and teachers; teachers; parents; whole school; educational community.

A database was built and thus, every teacher librarian can search a practice that matches his/her needs. An inspiring example can give birth to something similar or to something that, due to the necessary

adaptations, ends up to be utterly different. But the important thing is that good examples are available and easily usable.

Picture 1. Good practices database



BEST PRACTICE - EXAMPLES

These are some examples of practices that have been disseminated in the SLN webpage. Through them it is possible to meet all the subthemes suggested by IASL: School library programs transcend the four walls; School library programs cross school borders; School library resources cross media; School library instruction crosses curricula and literacies; School library programs serve all students; Learning occurs anywhere, any time.

- [Crossing Borders - Joint Multicultural Campaign](#)

This [project](#) is included in the category *curriculum collaboration* and its target are students and teachers.

It is related to *Comenius project - Slodic (School Libraries: Open Doors to Intercultural Competences)*. It happened in two phases, the first in Portugal and the second one in Denmark. All the work was mainly developed in the school library, articulating with the English teachers. The curriculum areas involved were English and Citizenship (the value of multiculturality).

- [Reading Meetings](#)

This [project](#) is included in the category *Reading* and its target is the educational community. It consists of monthly reading meetings. Each meeting is about a theme. These very participated reading sessions that occur after dinner, often in rather cold evenings, have strengthened the links of the school library and of the school itself with the families and with the educational community. Books are in the center of the interaction that occurs as they allow reading and

sharing texts among the participants, they provide models to be followed and they value the act of reading.

- [TV na Maior](#)

This [project](#) is included in the media literacy work of the school library and its target is the whole school.

It consists in the creation of a school TV channel that transmits news, documentaries, interviews and promotional spots about books.

The project is being developed in collaboration between the school library and the teachers and students involved and has the support of two professional journalists who are training students in journalistic writing, filming, video and sound editing.

The articulation with the school libraries will allow students to develop competencies in media and information literacy, digital literacy, reading and writing and simultaneously promote their critical thinking, creativity and innovation, autonomy and responsibility, safe use of digital tools and environments, problem solving, collaboration and communication.

The project applies *Learning with the school library* in secondary education and is considered by teachers and students very important to active citizenship and to independent lifelong learning.

- [Reading... Communicating... Integrating](#)

This [project](#) is included in the curriculum collaboration category and its target is the whole school.

It involves the collaboration between Special Education teachers, teachers of different areas and the school library.

The aim is to reinforce the formative role of the school library in cognitive, informational and artistic skills of children and young people with special needs, allowing them a full integration in the school and in the community.

- [Reading and involving](#)

This [project](#) is included in the curriculum collaboration category and its target are the students.

The school library team selects texts connected to classroom content and publishes them in the library website in a section dedicated to the project. Each text is accompanied by an online questionnaire designed to develop reading competences. The teacher of the involved disciplines give students the URL and they do the activities autonomously in the established time. They can do it in the school library or in the classroom. This is done through Google forms and allows the school library to give feedback to the teachers of the answers given, so that they can discuss them with their students.

CONCLUSION

Through the feedback given by regional coordinators we have the perception that the publicizing of these practices has a positive effect on school libraries. Some of these practices are quite elaborate, but others are rather simple and teacher librarians feel more at ease to show their good ideas, however simple they may be.

Some of the libraries reproduce the practices with little changes and become more intervenient and active in the context of their school. Others go beyond that and get stimulated in their creativity, making way to the appearance of new good practices.

The fact that they are centralized in the SLN website, that is very often visited by teacher librarians, is of decisive importance. Finally the database organized by categories facilitates the search.

So, the publicizing of good practices by the SLN is a good practice itself.

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Libraries on the Move: By Land, By Sea, and By Air

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ABSTRACT

Libraries are critical to literacy development, particularly in developing nations where literacy rates are low, poverty rates are high, and resources are limited. School libraries in developing nations often suffer from inadequate resources, staffing, and facilities. Mobile libraries have been delivering resources and services via land and water routes to communities in developing nations, though their support of school children may be limited. Emerging technologies in the form of digital mobile libraries offer the potential to bring high quality resources and services to schools and communities. In this paper, the authors discuss/explore myriad mobile libraries, particularly in developing nations, the state of school library programs in developing nations, and the potential of digital mobile libraries to transcend the physical walls of libraries to better foster literacy for students and their communities.

Keywords: Mobile Libraries, School Libraries, Developing Nation, Digital Libraries

INTRODUCTION

While the word library is typically associated with a brick-and-mortar building, Johnson (2015) states that “librarians have a long history of overcoming geographic, economic and political challenges to bring the written word to an eager audience” (p. 7); one way librarians accomplish this goal is through the implementation of mobile libraries. The International Federation of Library Associations and Institutes (IFLA) defines *mobile library* as “any library service that does not stay in one place” with the intent to “promote equity of service provision by enhancing the opportunity of access to library services” (2010, p. 5). Mobile libraries have and currently exist in myriad forms, including but not limited to motorized land vehicles, animals, boats, rickshaws, bicycles, and more recently through digital means.

Multiple factors can drive the need for a mobile library: climate, governmental support, budget, cost, available resources, terrain, and population served (Atuti, 1999; IFLA, 2010). Traditionally, mobile libraries have served remote, rural areas where building a brick-and-mortar structure is not feasible (International Librarians Network, 2015). Mobile libraries are also deployed in underserved urban areas (Cheunwattana, 2003). The served communities are generally described as having both high illiteracy and poverty rates (Vance, 2007; Ruiz-Grossman, 2016).

As a brick-and-mortar library houses resources in multiple formats, so do mobile libraries, facilitating access to physical and electronic resources. Services and materials offered by mobile libraries vary based on the needs of the community and the availability of resources (IFLA, 2010). With the advent of smartphones and the increased access to digital resources they provide, new possibilities exist for providing library resources and services remotely, and library programs internationally are embracing the challenge (Meier, 2015).

Typically mobile libraries are used to extend the services offered by public libraries, although the literature acknowledges some cases where mobile libraries are used to provide outreach to schools (International Librarians Network, 2015). This paper provides an overview of mobile libraries worldwide

and explores how libraries can use mobile technology to transcend their physical walls, fostering community literacy and promoting student academic achievement.

BY LAND

By Motorized Land Vehicles

Motorized land vehicle mobile libraries are better at providing rapid transport of materials, and they are able to convey larger quantities of materials than other types of mobile libraries. Three primary forms of motorized land vehicle mobile libraries exist: bookmobiles, motorbikes, and trains. Bookmobiles are the most common, and are usually in the form of a van, bus, or truck. Bookmobiles have a decades-long history of use, providing resources for patrons in rural areas of developed and developing countries. While not every country that deploys bookmobiles keeps statistics, there were 659 bookmobiles in the United States in 2014 (American Library Association, 2017).

The library resources, programs, and services provided by motorized land vehicle libraries vary greatly. The Malaika Mobile Library in Kampala, Uganda is only able to transport a small collection of physical books via motorbike (Ruiz-Grossman, 2016). The Mali Library Wagon, a train, offers a collection of 3,000 books and 300 audiovisual materials (Lucas, 2002). Specific library programs in other countries, such as Thailand, China, Canada, and Mali offer programming and services in the forms of storytime, games, activity packets, performances, summer and after school reading groups, tutoring, teaching assistance, and training (Lucas, 2002; Cheunwattana, 2003; Sanoma, 2011; Slobodian, 2014). Zimbabwe's "Big Blue," a bookmobile, offers students access to a computer lab and internet (Lucas, 2002). In the United States, OverDrive's bookmobile is strictly digital, providing eBooks, audiobooks, streaming video, and Wi-Fi access (OverDrive, n.d.). The Moska Mobile Library in Afghanistan provides books to children in remote areas and also focuses on delivering books to adolescent girls sequestered to their homes during puberty (ISHK/Hoopoe Books, n.d.). In addition to providing library resources, programs, and services, motorized land vehicle libraries may also be used for outreach to advocate for the importance of libraries (Lucas, 2002; Cheunwattana, 2003; Witteveen, 2017).

The locations visited and duration of stay by motorized land vehicle libraries varies considerably. In Bulawayo, Zimbabwe the bookmobile visits shopping centers, retirement homes, and schools for only one hour per week (Doust, 1999), while Mali's Library Wagon stops for one or two days during each visit (Lucas, 2002). Strathcona County in Canada visits schools and community centers weekly (Slobodian, 2014). The KONE Corporation Centennial Foundation's bookmobile serves migrant children living in the eastern and southern regions of China, visiting 10 cities annually, staying one to two weeks in each location (Sanoma, 2011).

While motorized land vehicle mobile libraries provide great benefits to the populations they serve, they are not without their issues. The demand for resources is often far greater than supply, even with the motorized land vehicle mobile libraries' capacity to transport hundreds or thousands of books (Doust, 1999). Motorized vehicles require maintenance and repair (Atuti, 1999) and need fuel to run (Mamyoto & Mutasa, 2004). The vehicles also require adequate roads (or rails) to reach their destinations, need staff to operate them, and materials to offer patrons (Doust, 1999). All of these considerations require funding that is not always available, negatively affecting people's access to library resources, programs, and services.

By Animals

Mobile libraries using animals for transport (or as Vance (2007) proposes, animal-assisted libraries) have an even longer history than motorized land vehicle mobile libraries: The first recorded mobile library, England's Warrington Perambulating Library, used a horse drawn carriage in 1858 (International Librarians Network, 2015). Animal-assisted libraries typically serve patrons residing in locations not accessible by motorized land vehicle mobile libraries, because they are either too remote or the terrain is impassable for traditional vehicles. Animal-assisted libraries also serve nomadic patrons with migratory patterns, and animal-assisted libraries are more commonly found in South America,

Africa, and Asia (Vance, 2007). Table 1 provides examples of the different species of animals used with their associated countries, but the list is not exhaustive.

Table 1: *Methods of Animal Transport by Country*

Country	Animals Used
Columbia	Donkey (Meier, 2015)
Ethiopia	Donkey (Blunt, 2009; Slobodian, 2014)
Indonesia (Java Island)	Donkey (Alfred, 2015)
Kenya	Camel caravans (Lucas, 2002)
Laos	Elephant (Meier, 2015)
Mongolia	Camels, horses, cows, or reindeer (Meier, 2015)
Peru	Horse and mule (Vance, 2007)
Thailand	Elephant (Cheunwattana, 2003; Vance, 2007).
Venezuela	Donkey (Slobodian, 2014)
Zimbabwe	Donkey (Vance, 2007)

The use of animal-assisted libraries grants librarians and related staff the opportunity to encourage reading, facilitate literacy development, and increase information access to traditionally underserved populations worldwide, particularly in remote regions that are difficult to access, or where motorized vehicle transportation is cost prohibitive. Animal-assisted libraries facilitate access to resources, programs, and services including print, audio-visual materials, computers, internet, storytime, instruction, and hands-on activities (Vance, 2007). Thailand's now defunct Books-by-Elephant program provided electricity generators and satellite dishes in addition to print and audio-visual resources (Cheunwattana, 2003; Vance, 2007). Zimbabwe's Rural Libraries and Resources Development Programme utilized a solar-powered generator to provide "telephone, fax, email, Internet access, radio, and television capabilities" (Vance, 2007, p. 51).

Animal-assisted libraries have different issues than do motorized land vehicle mobile libraries. The animals may require time off during their mating season, narrowing the window of an animal-assisted library's availability. In general, the climate, geographical conditions, and size of the service area can be prohibitive to travel, even for animals. Just as motorized land vehicle mobile libraries require skilled workers to provide maintenance, animal-assisted libraries require skilled workers training to properly care for the animals; training that may be difficult to receive. Although animal-assisted libraries may require less funding than motorized vehicle mobile libraries, limited funds can still shut down a program, as was the case with Thailand's Books-by-Elephant program (Vance, 2007).

By Humans

Humans, with the assistance of bicycles and tricycles pulling carts and rickshaws, also provide mobile library services. With Thailand's Door-to-door box project, a 'librarian' (who may or may not be certified) transports boxes of books via tricycle, leaving one box at each home for one month, then returning to transport each box to a different home (Zabed Ahmed, 2010). Regions of Bangladesh use bicycles with rickshaws to distribute books in rural areas. In the Naogaon district of Bangladesh, police officers are required to operate the mobile libraries and visit three schools weekly, providing a variety of texts to supplement student learning (Karmaker, 2016). In the Munshiganj district, the local government disseminates books to 68 of 69 unions to encourage reading but also to educate children about societal issues such as "drug addiction, child marriage, and abnormal population growth" (Mirza, 2015). In an effort to "improve[s] the quality of life for women and their families in some of Afghanistan's most vulnerable, marginalized female-headed households" (ISHK/Hoopoe Books, n.d.), Hoopoe's Books for Afghanistan project in partnership with the Children's Book Foundation distributes hundreds of books via one man and his bicycle riding around the Bamyan province.

Even in the United States, book bike libraries are becoming popular. Book bike libraries include a bicycle or tricycle pulling a cart, offering resources and services, including physical book circulation,

Wi-Fi access, library account registration, e-book downloading, teaching, outreach, and advocacy in Chicago, Denver, Seattle, and Oakland (Francis, 2014; Oakland Public Library, n.d.). The Dallas Public Library system intends to customize each book bike's collection for each visit's specific audience, such as schools and senior centers (Downs, 2017).

A bicycle, tricycle, cart, and rickshaw cannot carry very many materials, and while it may be minimal and relatively inexpensive, they will still require maintenance. Non-motorized vehicle libraries will also have a more limited range compared to motorized vehicle or animal-assisted libraries.

BY WATER

Mobile libraries traveling via water serve coastal, river, and canal communities, and have been in service since at least the 1950's when countries such as Sweden, Norway, and Thailand used boats to circulate books to communities (Atuti & Ikoja-Odongo, 1999; Cheunwattana, 2003). Thailand discontinued their floating libraries for a time, but then brought them back and modernized them to include audio resources, video resources, toys, games, and computers (Cheunwattana, 2003). The purpose of these floating libraries is to "promote reading and water conservation and environmental education through books, toys and exhibitions" (Lucas, 2002, 35) and to provide educational opportunities (Lerdsuriyakul, 2000; Cheunwattana, 2003).

In West Sulawesi, Indonesia, where access to reading materials is often limited to one community copy of the Quran and literacy levels are extremely low, a journalist developed a Perahu Pustaka, a small sailboat used as a book boat, to deliver children's books written in both Indonesian and "broken English" to promote reading for pleasure (Sutcliffe, 2017). As previously mentioned, in the Munshigani district of Bangladesh, books are disseminated to 68 out of 69 unions via rickshaw; the remaining union is surrounded by a river and receives materials via a boat library, as the local government recognizes people in all unions need access to information about social issues (Mirza, 2015).

As with motorized land vehicles, mobile boat libraries service a variety of locations and remain for different durations. Indonesia's Perahu Pustaka (Book Boat) circulates approximately 4000 books with frequency dependent upon funding (Sutcliffe, 2017). Norway's *Epos* ship circulates 6000 books to 150 small coastal communities but only during the winter months, with the duration of each tour being 45 days, as the ship is repurposed for tourists during summer months (Bokbaten Epos, n.d.). As of 2000, Thailand's mobile boat library "served at least 30,000 people annually during, at least, five days a week" (Lerdsuriyakul, 2000).

Mobile boat libraries, like their land vehicle counterparts, suffer from wear-and-tear (Cheunwattana, 2003). Funding is also an issue, as Indonesia's journalist-run Perahu Pustaka (Book Boat) relies on donations (Sutcliffe, 2017). What effects climate change may have on the navigability of the waterways currently used by mobile boat libraries is at this time unknown.

BY AIR

While delivery of print resources through drones or other modes of air transportation is not yet a widely-reported phenomenon, balloons are being used to provide internet access in remote and rural areas in Peru (Dupere, 2017). All wireless internet transmissions travel through the air, facilitating people's access to resources through mobile devices, also known as the mobile web. As data transmission speeds increase, as the cost of connectivity decreases, and as the technological capabilities of cell phones and other mobile devices improve, people are increasingly using their mobile devices to access information through the mobile web. Librarians may capitalize on people's increased internet access to better serve the needs of their communities by utilizing new technology (Vassilakaki, 2014) to reach broader audiences and by providing better digital access to library resources and services. Thus a new form of mobile library has emerged: the digital mobile library. To be successful, a true digital mobile library must transcend a simple web presence that provide only basic library information, such as contact information, location, and links to outside websites: They must provide resources and services comparable to ones that patrons would have access to in a physical library (Fernandez, 2015), including

database access, OPAC access, course reserves, virtual reference services, e-books, audiobooks, streaming media, and online instructional materials (Callow & England, 2011; Bomhold, 2014; Negi, 2014; Fernandez, 2015).

As with physical mobile libraries, digital mobile libraries are not without problems: platform compatibility issues, e-books not opening or not downloading on certain devices, infrastructure expenses, determining technological priorities, and staff training are all considerations that must be met (Callow & England, 2011). While the cost of mobile devices continues to fall, they may still be out of the range of affordability for some. Most importantly, digital mobile libraries cannot succeed if the internet infrastructure is unavailable (Fernandez, 2015), though the balloon-facilitated internet may be one way to circumvent that issue.

Extreme discrepancies exist in internet usage, internet access, and internet affordability between developed nations and developing nations. Approximately 47% of the world's population uses the internet, which means the remaining 53% do not, whether by choice or lack of access. Non-users are found predominately in Africa (75%), the Arab States (58.4%), and Asia (58.1%). Although subscriptions to broadband are continually increasing in developing nations, the cost remains significantly higher than in developed nations, often to the point of unaffordability; slower bandwidth impedes access to the full range of resources and services available through the internet (International Telecommunications Union, 2016). Fernandez (2015) proposes that "Libraries could even drive into communities to loan mobile hotspots, along with a tablet that would make that device meaningful. By bringing technology to communities, libraries can take the old idea of the traveling library and combine it with whatever new innovations the libraries provide" (p. 6).

SpaceX, Facebook, and Google's X are experimenting with a variety of technologies to provide internet service in underserved areas. SpaceX intends to provide high-speed, cable-less internet access by launching 4,425 satellites between 2019 and 2024 (Kharpal, 2017). X's Project Loon, advertising "balloon-powered internet for everyone," has been using a network of balloons to transmit internet access from existing telecommunications providers to ground areas outside the covered networks. Their goal is to "... connect people in rural and remote areas, help fill coverage gaps, and bring people back online after disasters" (X, n.d.). Facebook's Connectivity Lab seeks to provide "affordable internet access...in communities around the world," with possible technologies of "high-altitude long-endurance planes, satellites and lasers" (Facebook, 2017). Creating an internet network infrastructure that is not wholly reliant on fixed physical assets will go a long way towards facilitating true access anywhere for everyone.

IMPLICATIONS FOR SCHOOL LIBRARIES

Most mobile libraries are an outreach effort of public libraries and thus serve general communities; rarely does the literature reference mobile libraries solely serving schools or acting as a supplement to school library programming or school library curriculum. In this extensive literature review, mobile libraries serving schools were only referenced in Magdalena, Columbia with the biblioburros (Ruffins, 2010) and in Zimbabwe with a standard bookmobile (Mamyoto & Mutasa, 2004) and with the "Big Blue" bookmobile (Lucas, 2002).

School library programs, particularly those in developing nations, are a crucial component to literacy development. Exploration of related literature reveals the following commonalities among developing countries, where poverty and illiteracy rates are high, underscoring the necessity of access to libraries that can facilitate community development and improvement:

- *Resources*: Limited funding and the expense of importing books results in insufficient resources. Students often have no books at home (Blunt, 2009) and few books at school (Lucas, 2002; Sturges, 2004; Blunt, 2009; Nengomasha, Uutoni, & Yule, 2012; Sutcliffe, 2017). As a result, students have no or very limited access to print materials (Nengomasha, Uutoni, & Yule, 2012). Because so much of the developing world has no internet access for varying reasons (International Telecommunications Union, 2016), access to technological devices and the internet is insufficient (Nengomasha, Uutoni, & Yule, 2012; Slobodian, 2014) to meet the students' needs

for materials. The cost of books in developing countries is often quite expensive, so schools must often rely on donated materials. Unfortunately, donated materials are often not written in students' native languages; they may be outdated, unrelated to the curriculum, or irrelevant to students' personal interests; and may be of poor quality (Doust, 1999; Mamyoto & Mutasa, 2004; Blunt, 2009; Adeyemi, 2010; Anderson & Matthews, 2010; Nengomasha, Uutoni, & Yule, 2012). As a result, pleasure reading is not a common activity (Doust, 1999).

- *Staffing*: School libraries in developing countries are often inadequately staffed. Three situations are common: the library is not staffed, a classroom teacher is assigned to perform library duties in addition to their teaching duties, or an employee is dedicated to the library but has not received library-related training (Sturges, 2004; Doust, 1999; Nengomasha, Uutoni, & Yule, 2012).
- *Facilities*: In some instances, physical space is problematic. Either there is no library (Sturges, 2004), the library is in a state of decay (Sutcliffe, 2017), or the physical space is extremely small, often limited to a storeroom within the school (Nengomasha, Uutoni, & Yule, 2012).

School Libraries Work (Scholastic Library Publishing, 2016), a seminal work in the American school library field, concludes that "A credentialed school librarian, collaboration and co-teaching, technology access, and collection size all elevate student learning" (2016, p. 1). In developing nations, school libraries with insufficient and irrelevant resources, insufficient and/or untrained staff, and inadequate facilities are more common than not, making it incredibly difficult to raise literacy rates and improve academic achievement. Mobile libraries, in their myriad forms, provide partnership opportunities to support curricular and personal reading and information needs, as well as technology and internet access, although they suffer from some of the same issues as school libraries, with limited resources, limited funding, inconsistent access, and potentially untrained staff.

The emergence of digital mobile libraries, with the prospect of inexpensive or free high speed internet reaching into all corners of developing nations (Kharpal, 2017; X, n.d.; Facebook, 2017), and the development of mobile friendly library resources and services (Callow & England, 2011; Vassilakaki, 2014; Fernandez, 2015) may bridge the existing gaps, allowing children everywhere to have sufficient access to high quality, current, accurate, and relevant information. Digital mobile libraries can transcend the four walls of the physical school library, enabling children to become judicious consumers and creators of information, and improve literacy rates for all peoples in developing countries.

Some questions about the effects and implementation of mobile libraries, digital information access, and school libraries in developing countries are yet to be answered, as scholarly research in these areas is limited. In the absence of abundant resources, how well are mobile libraries supporting community needs and working to improve literacy? To what extent are mobile libraries serving children? To what extent are mobile libraries supporting schools and school library programs? What mobile library strategies are the most effective and produce the best outcomes? What else can be done to increase access to quality resources, programs, and services?

CONCLUSION

Mobile libraries are one way to offer information access and opportunities for literacy development in areas where it is not feasible to build brick-and-mortar libraries. In developing nations, mobile libraries often serve communities with high poverty rates and low literacy rates. Schools in these developing nations often either do not have libraries, or have libraries with untrained staff, insufficient funding, and/or irrelevant, outdated collections. Rarely, however, are mobile libraries targeted towards specifically supporting school library programs. Emerging technologies are changing the face of information provision and access, offering opportunities for the transformation of physical mobile libraries into digital mobile libraries that can empower students and communities by fostering the development of traditional and information literacies.

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Distilling the Information: Teach Explicit Note Taking to Help Students Learn

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ABSTRACT

This research-based session explores the need for explicit note taking instruction for students in upper-elementary grades through high school. The benefits of taking notes by hand versus using a keyboard are also examined. Participants will learn specific note taking strategies to teach students that will benefit all types of learners.

Keywords: Notetaking; Notetaking Strategies; Metacognition; Learning Strategies; Information Literacy; Instructional Effectiveness; Elementary School Students; Elementary Education; Middle School Students; Secondary Education; Teaching Methods

INTRODUCTION

Students are expected to take notes throughout their academic career, yet they are rarely taught explicit note taking strategies that include using abbreviations, symbols, and writing like Cavemen speak (“pilgrims land Plymouth – 1620”). This crucial component of information literacy should not be neglected in the digital age. School librarians can increase their relevance to the school community by filling this void and delivering note taking instruction to students of all ages. Taking good notes helps students make meaning from information, enhances student performance in content area subjects and guards against plagiarism. This presentation begins with an overview of current research, noting that most studies about note taking instruction involve undergraduate students.

A connection between note taking by hand and brain function (the study of “haptics”) is also explored, as well as the idea that taking notes on a laptop or mobile device is not as conducive to resonant learning as using pencil or pen. The current discussion of whether or not to teach cursive (handwriting) is briefly discussed.

CONCLUSION

Teachers who deliver note taking instruction should understand the importance of metacognition (student understanding of their own individual learning) in the development of note taking proficiency. Results of an online survey of 6th grade students and their awareness of note taking strategies they use in content areas such as social studies and science are reviewed. Discussions with students should include the wide application of taking notes, from academia to every day life. Teaching students the personal nature of note taking should also be stressed. Learning to take notes is a process, similar to writing, and can take upwards of 15 years to perfect (Piolet & Boch, 2004).

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School Library Researchers in the Digital Age: Understanding Teaching, Research and Service in the Academy

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ABSTRACT

This study presents the realities of teaching, research and service for 20 school library faculty members working on six continents. Teaching, research and service expectations vary between institutions, with 19/20 of the faculty members teaching four or more classes per academic year with the numbers of students taught varying from 10 to 300. The faculty members in this study are productive, with 9/20 publishing two or more peer-reviewed media per year. Another six are publishing one peer-reviewed media per year. Service is expected and participants in this study are all involved in faculty governance as well as service to the discipline and the profession. This research provides information to potential and current school library faculty that is helpful for making career decisions, e.g., entry to the profession, career progression, research productivity, and mentorship.

Keywords: Teaching, Research, Service, Faculty, Academies, Careers

INTRODUCTION

It has been said that life in the academy can be compared to traditional automotive garages where you could get gas, a cold can of coca-cola, your tires changed, your car fixed and, perhaps, even rent a motel room. While we rarely see these garages any more in the time of self-service gas stations, tire shops, JiffyLube, and specialized repair shops, in the academy there are still “full-service” academics. These faculty members engage in research, teaching, and service and are expected to excel in all areas to be awarded tenure and promotion.

Faculty members who work in the area of school libraries are a very small subset of those working in universities around the world. They are interesting because they work in faculties, colleges, and schools of education and/or library and information studies, tend to have professional work experience, and are predominantly female. Examining a small group of researchers from around the world who work in the same area can provide a starting point for looking at workload issues in the academy.

RESEARCH QUESTIONS

What are the experiences of the school library faculty members in the 21st century? How do they experience teaching, research and service? How many hours a week do they teach, what conferences do they attend, where do they publish, and how do they pay for it all? What supports are in place in their units, faculties and at the university level to help these faculty members be full-service academics? This research seeks to understand the experiences of school library faculty members working in university settings in terms of teaching, research, and service.

REVIEW OF THE LITERATURE

According to Bentley and Kyvik (2011), “the modern research university - with its teaching, research and service missions - stands as the pivotal institution because it produces knowledge (research), and transmits knowledge to students (teaching) and to societal stakeholders (service)” (p. 529). In the modern research university there is still the “‘complete scholar’ engaged in coherent, integrated, and self-directed work across the full range of teaching, research, service, and governance” (Plater, 2008, p. 36). It

makes sense, then, that we try to understand the experiences of faculty members in the modern research university. There is no research examining the specific experiences of school library faculty members in the global context. However, we can learn from the research of others about teaching, research and service in higher education more generally.

Gottlieb and Keith (1997) present the idea of research-oriented and teaching-oriented faculty members. While this article is old, the conceptions are interesting. Those that are research oriented are more likely to be male, more likely full professors, work at large institutions (more than 10 000 students), and are more likely required to do research (95%) (Gottlieb & Keith, 1997, p. 404). Those that are teaching oriented are more likely to be female, work at smaller institutions (less than 2 500 students), and only 75% are required to do research (Gottlieb & Keith, 1997, p. 406). Those who lean toward research are “likely to spend one-third to two-thirds more time on research than those oriented toward teaching,” teach fewer undergraduate courses, and publish more articles than those who lean toward teaching (Gottlieb & Keith, 1997, p. 409). Webber (2011) also found that “faculty who spend more time on teaching are less productive with their research” and full professors produce more refereed journal articles than associate and assistant professors (p. 35). Interestingly, Webber found that race, marital status, and gender had no significant effect on “the production of articles, books, textbooks or presentations” (p. 35). However, financial support for research and the institution type did have an effect on productivity; “respondents from doctoral-extensive institutions report 62 percent more refereed articles than those from master’s and bachelor’s institutions, and respondents from research-intensive institutions report 63 percent more refereed articles than those from non-doctoral institutions (Webber, 2011, pp. 38-39).

Workload of faculty members can be examined using contract or collective agreement information such as, for example, 40% teaching, 40% research and 20% service in some research-intensive universities. However, these figures may or may not represent the actual amount of time full-time faculty spend on the different aspects of academic work. Bentley and Kyvik (2011) report on a survey of over 7000 full-time faculty in 14 countries (Argentina, Australia, Brazil, Canada, China, Finland, Germany, Hong Kong, Italy, Malaysia, Norway, UK, and USA) to report the number of hours they spend engaging in academic work including teaching, research, and service as well as administration and other academic activities during the teaching terms (roughly $\frac{2}{3}$ of the year) and during the non-teaching term. The following table is a summary of their findings.

Activity	Number of hours of work in teaching terms	Number of hours of work in non-teaching term
Teaching	19.6	7.6
Research	15.7	23.9
Administration	7	6.6
Service	3.2	3.4
Other	2.9	3.2
TOTAL	48.4	44.7

Table 1: Mean weekly hours on academic activities from Bentley and Kyvik (2011) pp. 535-536

A study by Link, Swann, and Bozeman (2008), using data from the US National Science Foundation, found that scientists and engineers working in Doctoral/Research Universities in the US work an average of 54 hours with the teaching, research, grant writing and service hours being 16.74, 19.42, 4.58, and 13.22, respectively. Another study, by Crespo and Bertrand (2013) found that faculty members in one research-intensive university in Canada self-reported they worked an average of 57 hours per week and spent their time in the following ways: 44.1% teaching, 35.2% research, 5.8% administration, and 14.8% service (p. 8). Bland, Center, Finstad, Risbey, and Staples (2006) found

similar numbers in their study with faculty reporting they spent 45.4% teaching, 26.7% research, 14.8% administration, 6.9% service, and 3.0% consulting.

Jonker and Hicks (2014) examined faculty workload at ten different universities in Ontario, Canada and reported that the average number of courses taught over two terms was 3.0 with a range from 4.5 to 2.4 with assistant professors teaching more courses than full professors (p. 21-22). The researchers also found that 19% of the sampled faculty members in chemistry had “no obvious recent contribution of scholarly and research output” (p. 45). In terms of research productivity, a study by Bland et. al (2006) of 5226 full-time faculty members reported research output in the previous two years.

Research Output	Recent Solo (last 2 years)	Recent Joint (last two years)
Juried Media	2.94	4.38
Non-juried Media	2.21	1.21
Published Reviews of Books	1.62	.58
Textbooks	0.79	0.72
Presentations	10.98	4.99

Table 2: Research Productivity for Full-time Faculty from Bland et. al (2006) p. 110

More specifically in the area of Library and Information Science/Studies (LIS), a study by Shaw and Vaughan (2008) examined the lifetime publication and citation patterns of 90 LIS faculty in the US (thirty at each rank - Assistant, Associate and Full Professor) who:

Produced 2,086 papers, chapters, articles and books. The number of publications ranged from 0 (for three assistant professors and two associate professors) to 114 (for one professor). The median number of publications rose from 7 (for assistant professors) to 17.5 (associate professors) to 37 (professors). The standard deviations were fairly large, indicating considerable variability among faculty members. It is worth noting that the standard deviation rose with rank; this means that performance gaps (variabilities) increased over the years. Productive people tended to be more productive over time, and non-productive people lagged further behind. Assistant professors published their first contribution a median of 10 years before the data were collected, which hints that active contribution to scholarship often begins before completion of the PhD. (p. 53)

Overall, the annual publication rate was 0.7 for assistant professors, 0.9 for associate professors, and 1.3 for full professors (Shaw & Vaughan, 2008, p. 54). A study by Wilson, Boell, Kennan and Willard (2012) examined the 2,235 journal articles published between 1967 and 2008 and compared the list to 382 LIS faculty in Australia. They found that 31% of academics had not published any journal articles and another 35% published between one and five journal articles between 1967 and 2008 (p. 63). The remaining 34% of faculty contributed the bulk of the journal articles (Wilson et. al, 2012, p. 63). Fourteen LIS academics accounted for over one-quarter (634) of the total number of journal articles, with school library faculty members L. Anne Clyde and Ross Todd publishing 141 articles together (Wilson et. al, 2012, p. 64). Another interesting finding from Wilson et. al was that journal articles were published mostly in national journals and a large share of the articles were published in school library journals.

Faculty service “has emerged, paradoxically, as necessary for the institutional welfare *and* as unacknowledged in faculty work lives” (Neumann & Terosky, 2007, p. 284). Neumann and Terosky (2007) suggest that we need to look at service from both a content perspective (the types of activities that professors carry out in their service roles) and from a context perspective (how professors make sense of their service activities as they carry these out) (pp. 284-284). In their study of recently tenured professors, Neumann and Terosky found that service increased after tenure. This service included “work for the

discipline or profession (e.g., recruiting and mentoring into the field, editorial and peer-review, leadership of professional and disciplinary associations, tenure/promotion reviews for other universities), or outreach and public service (e.g., community service, advisory services to national or community agencies) (p. 290). Lawrence, Ott and Bell (2012) noted that “faculty who reported they and their institutions valued institutional service highly spent more time on these activities” (p. 345). They also highlight that the reality of faculty life is that “time given to research and teaching diminished time to service” (Lawrence, Ott, & Bell, 2012, p. 345).

This literature review examines research about faculty workload (teaching, research, and service) research productivity as well as orientation toward research or teaching. Research about faculty service is also highlighted. This research explores the experiences of the school library faculty members in the 21st century in terms teaching, research and service expectations.

METHODOLOGY

This research used a snowball sampling technique to find school library faculty members working in universities around the world who read and write in English. Twenty participants agreed to either be interviewed or, if an interview was impossible to schedule, to provide written responses to the interview questions. The participants also provided a copy of a current curriculum vitae so that the researcher could gather educational information, work experiences, publications, and presentations.

Participants work in universities in Canada, the United States, South America, Europe, Africa, Asia and Australia. There is representation from all ranks - Lecturer, Senior Lecturer, Assistant Professor, Associate Professor, Full Professor and Emerita faculty members.

These 20 faculty members were asked about:

- teaching responsibilities
- areas of teaching expertise
- service commitments
- research interests
- publications
- conference attendance
- supports for research
- grant opportunities
- grant support
- experiences of tenure and promotion
- experiences of being a doctoral student and a school library faculty member

The responses were analyzed by looking for common themes and trends that emerge across questions and throughout the comments (Bogdan & Biklen, 1992; Miles & Huberman, 1998).

FINDINGS

The findings will be reported by interview question and will be divided into parts of the interview. The first part of the interview focused on basic background information of the faculty member. The second part explored teaching expectations and experiences and the third part asked about research expectations and experiences. The fourth part focused on service expectations. Numbers, where appropriate, as well as themes and direct quotes from the participants will be used to provide description.

Basic Background Information about the Participants

The participants came from eight countries and six continents (North America, South America, Europe, Africa, Asia and Australia). Eighteen of the participants were women and two were men. There is no actual data to indicate gender representation in school library faculty but experience tells me that the majority of school library faculty members are women. Sixteen of the twenty faculty members have completed a PhD or EdD and three are currently in a PhD or EdD program. Nine of the participants have a PhD in the area of library and/or information science/studies and fifteen have a Master of Library and/of

Information Science/Studies (MLIS) degree. The five participants without an MLIS degree have master's degrees in education (three participants), computer science (one), and internet studies (one).

The participants in this study work in a variety of units, departments, schools, colleges and faculties. Nine faculty members work in Schools, Colleges or Faculties of Education, three work in Colleges of Communication and Information, three work in Schools of Library and/or Information Science/Studies, one works in a School of Arts, one in a Faculty of Science, one in a Faculty of Arts and Education, one in a Faculty of Humanities and Social Sciences, and one in a Faculty of Computer Science.

Workload

During the interview, participants were asked if there was a percentage expectation for research, teaching and service. Some participants said yes and indicated this, others estimated their workload, and others indicated their personal impressions. Some did not include a percentage breakdown of their work but did highlight which areas were most important at their university. In terms of research expectations, participants indicated that research was important at all of their institutions, and the percentage of time expected to be spent on research varied from 25-60% with the average being 40%. Teaching was central to the work of all participants with percentage of time expected for teaching being as high as 80% and as low as 30%. The average expectation for teaching was 44%. Service expectations varied as well from a low of 5% to a high of 33% with the average being about 20%.

Faculty members in this study took on a variety of leadership roles. Participants reported being Chair of Department (two), Department Head (three), Program Coordinator (six), Course/Program/Certificate Director/Lead (five), and Associate Dean (one). When asked how long they worked at their current university, the answers ranged from one year to 40 years with an average of 12.5 years. Ten participants also reported working at other universities before their current position. One participant worked for 20 years at another university, but the average number of years worked at a previous university for the ten participants was 7.4 years. These previous positions included tenure-track and tenured, post-doctoral, lecturer, adjunct positions.

Teaching Experiences and Expectations

Participants were asked questions about their teaching experiences including number of courses taught per year, summer teaching expectations, online and face-to-face teaching with graduate and undergraduate students. The faculty members were also asked about class sizes, number of students taught per year and doctoral student and master's student supervision.

The teaching load of school library faculty varies greatly. Some faculty members teach two classes per term for a total of four classes per calendar year while some teach up to nine classes per calendar year. Not surprisingly, universities with higher research expectations have lower teaching expectations.

Number of three hour per week classes (3 credit hours) taught in two terms/sessions	Number of Faculty members with this teaching load
Up to 4	1
4	6
5	2
6	5
More than 6	5
By student rather than by class	1
Total	20

Table 3: Teaching Expectations for two terms/sessions

In terms of teaching in a summer term/session, all faculty members indicated that there was no expectation to teach although for many (13) there were opportunities to teach. Seven faculty members said they didn't teach in summer session. Five indicated that they regularly taught in summer session extra to their assigned teaching responsibilities.

The majority of faculty members are teaching at least some of their classes online (16) with 11 teaching only online. All faculty members are teaching graduate students and nine of the twenty teach undergraduate students as well. Class size varies from 5-150+ and faculty member reported teaching from ten to 300 students during two sessions.

Numbers of students taught per year	Number of faculty members
0-50	4
51-100	5
101-150	3
151-200	3
201-250	3
251-300	2
Total	20

Table 4: Number of students taught per year

Faculty members also had teaching responsibilities for student supervision of doctoral dissertations and master's theses. Fourteen faculty members are currently supervising or on supervisory committees for doctoral students. Eight are currently supervising master's thesis students. Additional responsibilities are for final projects such as capstone papers, portfolios, and research papers for non-thesis master's students. This can be a huge additional burden with some faculty members reporting being responsible for more than 100 final projects.

Supervision of practicum (practice teaching, field experience, etc.) is also considered part of teaching load for faculty members. For some, they have negotiated this supervision to be a part of their teaching load (the practicum is a class), others organize placements for students, and still others do this supervision extra to assigned teaching. Some hire adjunct instructors to visit practicum sites while others have unsupervised practicum experiences.

Teaching evaluations are very important for tenure and promotion. Faculty members agreed that tenure and promotion committees look very carefully at teaching evaluations and that they are "heavily weighted." One faculty member said that the committee needs to see "improvement" over time and that one needs to "be a good teacher" to get tenure and/or promotion. Another faculty member recounted advice given; "No one has ever NOT got tenure because of bad teaching evaluations - but don't get bad evaluations." Another felt that "teaching evaluations were more important than at other places and you can't get by with bad evaluations." One faculty member wondered if teaching evaluations were more a "popularity contest" with "awards for the highest marks." Another noted that faculty members were starting to push back a bit on teaching evaluations based on new research emerging about validity and gender bias in teaching evaluations done by students.

Curriculum Design, Review, and Accreditation Expectations

Almost all faculty members reported being involved in curriculum design and review on an ongoing basis (new courses, American Association of School Librarianship reviews, accreditation, etc.). One faculty member spoke about creating online learning modules for new curriculum. There are six or seven modules for a subject and each module can take 20 hours to complete. Several of the faculty

members are the only ones in the area of school librarianship so they are solely responsible for curriculum review and supporting adjunct instructors who teach in the program.

Faculty members also indicated that the expectations of accreditation reviews (for example, American Library Association Committee on Accreditation (COA) and Council for the Accreditation of Educator Preparation (CAEP), Malaysian Qualification Agency, Australian Library and Information Association) are also demanding on their time. COA and CAEP happen every seven years and programs will spend two years gathering and preparing documentation.

Research Experiences and Expectations

Research is an essential part of the work that faculty members do in the academy. To better understand research experiences and expectations, faculty members were asked to discuss the research expectations of their unit and of the larger university. The interviewer also asked questions about research grants, publications, conference attendance, and research with graduate students. Participants were also asked to share their current research areas and their opinions about the premier conferences in the area of school libraries.

Thirteen of the twenty faculty members work in institutions that are research-intensive. Almost all of the school library faculty members indicated that research was an expectation of their position. One participant told the interviewer that there is an “expectation to contribute to knowledge by publishing in journals within the country and outside the country in the chosen field of specialization”. Another participant indicated that the key considerations for research are “sustained productivity, impact, permanence, peer-reviewed publications, and citations”. Research expectations vary; some faculty members report that expectations are very clear while others describe them as “mushy”. For example, one participant noted that the rule of thumb is “ten for tenure”. That is, ten peer-reviewed articles before you go up for tenure. Several participants indicate that there is an expectation of two peer-reviewed publications per year at their university. Others reported that there are no specific numbers but that research leading to peer-reviewed publications is the expectation.

Many of the participants reported that applying for grants was encouraged by the university. However, many also stated that grants are difficult to secure and credit may be given for applying. Two of the faculty members indicated that grants are required for tenure and promotion. National grants are the most prestigious.

Almost all of the participants (18) reported that conference attendance is an expectation. School library faculty are encouraged to present peer-reviewed papers at national and international conferences. Several participants (four) indicated that presenting at conferences is an expectation for tenure. Some participants also mentioned that presenting at local conferences is important for connecting with the school library community. Some (ten) receive funding every year to attend conferences, some must compete for funding (two), and some receive funding support only if they are presenting a peer-reviewed paper (four). Funding support varied from about \$1000 a year to \$2500 US dollars per year. One participant indicated that attending and presenting at international conferences was so important that she took a bank loan to pay for the travel expenses.

When asked about the premier conferences to attend, participants listed a variety of national and international conferences.

Conference Name	Number of times mentioned
International Association for School Librarianship	9
American Association for School Librarianship	6
Association for Library and Information Science Educators	4
International Federation of Library Associations and Institutions	3

American Library Association	3
International Society for Technology in Education	2
Australian Library and Information Association	2
Nigerian School Library Conference	2

Table 5: Premier Conferences for School Library Faculty

Participants also shared conferences hosted by the *Young Adult Library Services Association*, the *Association for Supervision and Curriculum Development*, and the *American Educational Research Association*, as well as the *European Conference on Information Literacy* and *Information Seeking in Context*.

Participants were also asked to share their current research interests. Information literacy and information behaviour were both mentioned three times. School libraries research was mentioned six times, school library history and school library trends were both mentioned twice, and school librarians, school library leadership, school librarian/principal relationship, school librarians, co-teaching in school libraries, and school library leadership were each mentioned once. Other research topics included: digital scholarship, online learning/education (three times), digital literacy, digital curation, children's media, technology adoption, and social media in libraries. School library faculty are also doing research in the areas of library services for people with autism, action research, professional development, instructional leadership, literacy (two times), diversity, collection development, knowledge organization/management, public libraries and social capital.

Examination of the participants' current curriculum vita demonstrated that 17 of the 20 have peer-reviewed articles in journals in the last five years. Journals published in English included:

The Australian Library Journal

Behaviour & Information Technology

British Journal of Education, Society & Behavioural Science

Catholic Library World

Communications in Information Literacy

Education for Information

Evidence-based Library and Information Practice

Information Development (3)

Information Research

The Information Technologist

International Journal of Adult Vocational Education and Technology

International Journal of Cyber Ethics in Education

International Journal of Education and Information Technologies

International Journal of the Book

Internet Research

Journal of the Association for Library Service to Children

Journal of Childhood Studies

Journal of Documentation

Journal of Education for Library and Information Science

Journal of Information and Knowledge Management

Journal of Librarianship and Information Science (2)

Journal of Research on Libraries and Young Adults

Journal of Visual Literacy

Knowledge Quest (5)

Library and Information Science Research (3)

Library Quarterly (2)

Library Review
Library Philosophy and Practice
LIBRI (2)
Malaysian Journal of Library and Information Science (3)
Mousaion: South Africa Journal of Information Studies
New Library World
Nigerian Libraries
Nigerian School Library Journal (2)
Nordic Journal of Information Literacy in Higher Education
Ohio Media Spectrum (6)
Reading and Literacy in Nigeria
The Reading Teacher (2)
Reference Librarian
Researcher
Sankofa: Journal of African Children's and Young Adult Literature (2)
School Libraries Worldwide (12)
School Library Research (9)
Scientometrics
Synergy (2)
Teacher Librarian (2+)
Topics of QQML (Qualitative and Quantitative Methods in Libraries)
Young Adult Library Services (2)

School library faculty also had research published in conference proceedings, presented papers at international, national and local conferences, and wrote book chapters and articles for professional journals. Scholarly output was impressive with a total of 108 peer reviewed articles published in the past five years. Keep in mind that two of the participants are retired, and three are in the early years of their career.

Type of Scholarly Product	Number
Peer-Reviewed Journal Article	108
Peer-Reviewed Conference Paper	53
Book	18
Edited Book	3
Book Chapter	55
Professional Article	29
Conference Presentation	81

Table 6: Scholarly Output

The interviewer also asked participants if they conduct research with graduate students. Nine participants indicated that they are currently doing research with graduate students or have done research with graduate students in the past. One participant stated that one reason for doing research with graduate students is because “it is very hard to learn about research in the abstract”. Through mentoring and providing opportunities for observation of research, graduate students can “soak up” understandings about research. Several participants have co-authored papers with their graduate students. One faculty member noted that it is difficult to do research with graduate students “when they are also working full-time”.

When asked about the research expectations for tenure and promotion, participants shared their perceptions. About half of the school library faculty felt that two peer-reviewed publications per year was the expectation at their university (journal article, conference proceedings or book chapter). Four participants suggested that one peer-reviewed publication was the expectation. One shared that they use a point system for tenure and promotion with 50 points required for Associate Professor and 75 points required for Full Professor (five points for a book or peer-reviewed article). Several commented that they were unsure about research expectations, that it wasn't in their contract, or that expectations were "mushy" while two others said that probation is part of the process and that tenure committees look for "significant progress towards goals". Several commented that the bar had been raised in recent years making tenure and promotion more difficult.

Service

All faculty members discussed aspects of their service commitments as part of their academic responsibilities. Expectations ranged from 5% to 33% of workload. Some participants felt that service was very important while others noted that service was merely "lip service". Five participants indicated that the faculty/college really values service and good citizenship is essential for the academy. All participants indicated that they provide service at the unit level and 13 indicated that they provide service at the university level. Community service included serving on local, provincial and/or state school library organizations. Participants also served on national level associations such as the American Association of School Librarians, Young Adult Library Services Association, and the American Library Association. Many faculty members also indicated that they are involved in state and national conferences as presenters and organizers.

At the international level, participants are involved in the International Federation of Library Associations and Institutions (IFLA), the International Association for School Librarianship (IASL), and the International Board on Books for Young People (IBBY). Faculty members also reported that they serve on editorial boards for several different journals. For tenure and promotion, some faculty members say that only teaching and research is important while others say that it is teaching and then service.

DISCUSSION

This research explored the experiences of 20 faculty members (eighteen women and two men) working in universities on six continents. The participants in this study work in a variety of units, departments, schools, colleges and faculties with most being in the areas of education and library and information science/studies.

Workload

In terms of research and/or scholarship expectations, participants indicated that research was important at all of their institutions and the percentage of time expected to be spent on research varied from 25-60% with the average being 40%. Teaching was central to the work of all participants with percentage of time expected for teaching being as high as 80% with a low of 30%. The average expectation for teaching was 44%. Service expectations varied as well from a low of 5% to a high of 33% with the average being about 20%. This was similar to other research (Bentley & Kyvik, 2012; Jonker & Hicks, 2014; Link, Swann, & Bozeman, 2008).

Teaching

The teaching load of school library faculty varied greatly ranging from 2 courses per academic year up to nine classes. This was similar to other findings that suggest that teaching load varies (Bentley & Kyvik, 2012; Jonker & Hicks, 2014; Link, Swann, & Bozeman, 2008), however, teaching load was much higher than in the Jonker and Hicks (2014) study done in Ontario. The high teaching load suggests that research expectations may not be as high as for some faculty members and some participants did indicate that the institution was teaching oriented (Gottlieb & Keith, 1997). No other research explored extra session teaching as part of workload but five participants indicated they regularly taught in summer session.

The majority of faculty members are teaching online, all teach graduate students and nine also teach at the undergraduate level with class size varying from 5-150+. The number of students taught in a year varied from ten to 300. Teaching included supervision of graduate students dissertations, theses, and final projects, and supervision of practicum (practice teaching, field experience, etc.). Almost all faculty members reported being involved in curriculum design and review on an ongoing basis (new courses, American Association of School Librarianship reviews, accreditation, etc.), and accreditation reviews also added to the workload of almost all school library faculty members. The research done by Bentley and Kyvik (2011), Link, Swann, and Bozeman (2008) and Bland et. al (2006) with faculty members self-reporting time spent on these tasks is very interesting. Further follow-up research with these participants will include asking them to record the number of hours spent per week on teaching (including supervision of students and curriculum design and review), research (including grant writing), service, and administration (including program management and adjunct instructor supervision). It is clear that teaching is a very demanding part of the life of the school library faculty.

Research

Almost all of the school library faculty members indicated that research was an expectation of their position although other types of scholarship were valued as well. Research expectations vary; some faculty members report that expectations are very clear while others describe them as “mushy”. Most institutions would like faculty members to have national grants although these are difficult to secure and credit may be given for applying. Almost all of the participants (18) reported that conference attendance is an expectation and they are encouraged to present peer-reviewed papers at national and international conferences. Some (ten) receive funding every year to attend conferences, some must compete for funding (two), and some receive funding support only if they are presenting a peer-reviewed paper (four). Funding support varied from about \$1000 a year to \$2500 US dollars per year. Premier conferences included those hosted by the International Association for School Librarianship, the American Association for School Librarians, the Association for Library and Information Science Educators and IFLA.

Examination of the participants’ current curriculum vita demonstrated that 17 of the 20 have contributed 108 peer-reviewed articles in journals in the last five years. The school library faculty in this study had research published in conference proceedings (53 times), presented papers at international, national and local conferences (81 times), wrote or edited 18 books, wrote 55 book chapters, and wrote 29 articles for professional journals. Two of the participants are retired, and three are in the early years of their career. Six faculty members in this study were very productive (with more than 3 peer reviewed media and/or books per year), three faculty members had two peer-reviewed media per year, six had an average of one per year, five others had limited or no research productivity. This compares with other research done about faculty productivity such as Bland et. al (2006) and Shaw and Vaughan (2008). Those with limited or no research productivity worked in institutions where teaching was a priority.

Service

Faculty members reported that expectations for service in their institutions ranged from 5% to 33% of workload. All participants were involved in institutional governance committees at the unit, faculty, college and/or university level. Five participants indicated that the faculty/college really values service and good citizenship is essential for the academy (Lawrence, Ott & Bell, 2012). Like Neumann and Terosky reported (2007), participants in this study were involved in service for the discipline or profession including serving on local, provincial and/or state, national and international school library organizations, and presenting at and/or organizing conferences for these associations. Faculty members also reported that they serve on editorial boards for several different journals.

IMPLICATIONS AND CONCLUSIONS

This study contributes to research about the experiences of faculty members in the academy. It presents the realities of teaching, research and service for 20 school library faculty members working on six continents. Teaching, research and service expectations vary between institutions, and faculty

members report teaching loads that are very different from each other. The teaching load of 19/20 of the faculty members is four or more classes per academic year and class sizes and the numbers of students taught over two sessions varies from 10 to 300. The faculty members in this study are productive with 9/20 publishing two or more peer-reviewed media per year. Another six are publishing one peer-reviewed media per year. Service is expected and participants in this study are all involved in faculty governance as well as service to the discipline and the profession.

Further research is needed in this area. A follow-up on research productivity in a few years would be useful to see if there are changes over time and as faculty members proceed through the ranks. Gathering self-reported time data for workload would be interesting to compare to previous research in other areas. It would also be interesting to find out more about how faculty members feel about their research productivity as compared to others in their unit. It would also be useful to interview another twenty faculty members to gather more data in all areas.

This study provides information for those interested in a faculty position in the area of school libraries. Participants worked in either research-oriented (13) or teaching oriented (7) positions and research and service expectations varied based on teaching workload. Those in research-intensive institutions had higher research expectations and those faculty members had higher research productivity than those in teaching-intensive institutions. For doctoral students in the area of school libraries interested in faculty positions, there are a variety of academic positions with different teaching and research expectations. When thinking about applying for faculty positions, it is important to find out more about an institution's teaching and research expectations and to find the right fit for your career.

This research provides information to potential and current school library faculty that is helpful for making career decisions, e.g., entry to the profession, career progression, research productivity, and mentorship.

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The Open Source School Library Research Database: Learning without Borders

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ABSTRACT

This paper introduces the Open Source School Library Research Database (OSSLRD) and highlights the 940 items in the database. Clyde's checklist (2001) was used to identify articles, conference papers, dissertations and theses that are included in the OSSLRD. Each identified piece of research was examined and key information was gathered including author(s), date of publication, journal, participants, method(s), location of the study (if available), research methods, themes, and findings. Similar trends from previous research were confirmed: research in school librarianship is published in two major journals: *School Library (Media) Research* and *School Libraries Worldwide*. There are a small core group of researchers working in the area of school librarianship. More than half of all research is by a single author.

Keywords: Open Source, Databases, Research

INTRODUCTION

Review and analysis of research in school librarianship was close to the heart of the late L. Anne Clyde, who played a pioneering role in providing regular updates on this topic. After her untimely passing in 2005 her database of school library research was lost. To honour Dr. Clyde, a team at the University of Alberta has been working to recreate her database and make it available to all. This presentation continues the work of Asselin (2011), Clyde (2006, 2004, 2003, 2002, 2001, 1996a, 1996b) and Mardis (2011).

According to Haycock (1995), "research in school librarianship provides the foundation and direction for effective school library practice, and there is ample evidence of the impact of school library media specialists and school library media centers on students' learning, given certain conditions and criteria" (para. 1).

RESEARCH QUESTION

This research is guided by one overarching research question: *What do we know about school library research?* This paper will tell readers more about the development of the Open Source School Library Research Database (OSSLRD) and will present an analysis of the current contents of the database including:

- Types and quantity of research types
- Methods of data gathering
- Geographical locations
- Authorship patterns
- Key Researchers
- Themes

Clyde's checklist (2001) was used to identify articles, conference papers, dissertations and theses that are included in the OSSLRD. Each identified piece of research was examined and key information was gathered including author(s), date of publication, journal, participants, method(s), location of the study (if available), research methods, themes, and findings.

THE DATABASE

The Open Source School Library Research Database currently has 940 entries and work is ongoing to add more. It will be freely available to anyone and researchers are able to add new items to the database.

OSSLRD
Open Source School Library Research Database

Introduction
 For students
 For researchers
 Contact us

Hi! As a researcher, you can not only browse and search the data in the database, but also make your own contribution.

Click here to add records into the database.

OSSLRD						
ID	Title	Format	Year	Author1	Role1	
		All				
1	The Search for Information and the Net Generation	C	2007	Combes, Barbara	Lecturer	E
2	Researcher's Perspective: Is Teacher Librarianship in Crisis in Digital Environments? An Aust	J	2014	O'Connell, Judy		C
3	Wikis in School Libraries	C	2007	Dukic, Dana	Librarian	K
4	Usage of Distance and Blended Learning in Educating School Librarians	C	2007	Zorica, Mihaela Banek	Research/Teaching Assistant	U
5	Challenging School Libraries in Portugal: Compromise, consideration, communication and col	C	2006	Bastos, Gloria	Professor	U
6	Touching the ground: the human dimension of teacher librarianship	J	2008	Smith, Andrew	teacher librarian	K
7	Further thoughts on teacher-librarians and school libraries: The need for system leadership	J	2011	Bahnisch, Brian	assistant director	di
8	Thoughts on teacher librarians and school libraries	J	2011	Bahnisch, Brian		Q
9	ASLA presentation to the public hearing of the House Standing Committee on Education and	J	2010	Bonanno, Karen		
10	Collaboration: Critical Success Factors for Student Learning	J	2007	Haycock, Ken		S
11	Editorial: Connecting is at the Core of Teacher Librarianship.	J	2012	Mardis, Marcia A.		FI
12	Tls as leaders: Are you a Highly Accomplished teacher librarian?	J	2014	Uther, Jenny	teacher librarian	M
13	Certifying Celebrity in the School Library: Self-Regulated Learning in Practice.	J	2016	Spruce, Robin		U
14	Information Literacy at the Grassroots in New Zealand.	J	1998	Gawith, Gwen	teacher librarian	
15	A Research Agenda for Enhancing Teacher Librarians' Roles and Practice in Hong Kong's 21:	J	2015	Lo, Patrick		U
16	No Child Left Behind: Implications for School Library Media Centers and Teacher-Librarians.	J	2004	Riggi, Wendy		
17	Teaching Information Skills in the Information Age: An Examination of Trends in the Middle Gr	J	2005	Asselin, Marlene		U
18	Science-Related Topics in School Library Media Periodicals: An Analysis of Electronic Citator	J	2006	Mardis, Marcia A.		W
19	Title: Collaboration: Critical Success Factors for Student Learning.	J	2007	Haycock, Ken		S
20	From One-to-One to One-to-Many: A Study of the Practicum in the Transition from Teacher to	C	2007	Mardis, Marcia A.	Associate Professor	FI
21	Title: Measuring Up: Achievement of "Beyond Proficiency" Standards in School Library Media	J	2007	Houston, Cynthia R.	Assistant Professor	W
22	Two Heads Are Better than One: Influencing Preservice Classroom Understanding and Practi	J	2008	Moreillon, Judi	Assistant Professor	Tr
23	Getting to Proficiency and Beyond: Kentucky Library Media Centers' Progress on State Stand	J	2008	Houston, Cynthia	Ph.D.	W
24	Information Literacy for Teaching and Learning: A Course for Teacher Practitioners.	J	2008	Bushong, Sara		
25	The School Library Policy: The Foundation for a Professional School Library Service	J	2006	Turner, Richard	Doctoral student	LI
26	Information Policy for Hong Kong Schools: The Case of the Missino Chonsticks	J	2006	Henri, James	Assistant Professor	U

You can search by author, title, year, location, type of research item (article, conference paper, dissertation or thesis). You can also search by research method. Where possible, we have included the abstract and a link to open source articles.

REVIEW OF THE LITERATURE

As a profession interested in information and research, it is not surprising that there has been a long tradition of examining research in the field of library and information studies (LIS). Early work in this area included a study by Stroud (1982) who examined higher degree theses in LIS, Järvelin and Vakkari (1993) who examined articles in LIS research journals and Snelson and Talar (1991) who examined papers presented at LIS research-oriented conferences (Clyde, 2001, p. 70).

Studies have also been carried out to examine what makes a quality journal article, what journals produce the highest percentage of research articles, what is the content of articles based on key-word content analysis, what methods are used in current LIS research, and the percentage of research articles found in all LIS-related publications. Researchers interested in quality research journal articles tend to look to the quality of the journal itself. Clyde (2004) lists the following strategies for assessing the quality of the journal:

- citation analysis
- journal impact factor

- number and percentage of collaborative articles
- peer-review status
- manuscript acceptance rate
- indexing of the journal
- number of external links to the journal website. (p. 1120)

Manzari (2013) examined LIS journal prestige by surveying full-time faculty in American Library Association (ALA)- accredited programs. Clyde's (2006, 2004, 2003, 2002, 2001, 1996a, 1996b) previous work clearly demonstrates that most of the research in school librarianship has been published in two major publications (1) *School Libraries Worldwide* and (2) *School Library Research* (formerly *School Library Media Research*). Clyde and Oberg (2004) in their study of research in *School Libraries Worldwide* between 1995-2003 found that about 30% of research articles were from the USA. Canada, Australia and the UK made up another 18%. There were 12 other countries represented as well as 10 articles that were international in scope. Clyde (2005) stated that "the field of school librarianship internationally has only a small core group of active researchers" (p. 6). Clyde (2005) found that there were a total 297 articles published between 1999-2003 and 43 authors published 3 or more articles. Mardis (2011), in her examination of Research Forum Papers at International Association of School Librarianship (see Table 3) conferences between 1998-2009, found that information skills and literacy, information technology, reading and reading promotion, and education in LIS made up over 50% of the research topics.

Asselin (2011) examined the extent and nature of internationalism in IASL publications from 2002-2008 that were published in *School Libraries Worldwide* and in the Research Forum of IASL Conference Proceedings. She found that the United States contributed about 33% of the research and the research methods included interviews, questionnaires, surveys, case studies and observations. Examining the 307 research articles, Turcios et al. found that the most frequent research methods were survey (21%), other (20%), case study (13%), content analysis (13%), interviews (9%), experimental research (8%), and bibliometrics (5%) (p. 477). Other methods included action research, classroom research, observation, focus groups, and usability (Turcios et al., 2014, p. 477).

METHODOLOGY

Along with research articles published in *School Libraries Worldwide* and *School Library Research*, the authors completed a detailed search of all databases that index school library research. They also searched for conference proceedings, dissertations and theses (indexed in Proquest Dissertations and Theses Global) reported since 1995. The Open Source School Library Research Database contains 931 items and Clyde's checklist (2001) was used to identify items that are included in this database. Items were published in English, were more than two pages long and included of some kind of statement that the work is based on research with the problem or phenomenon to be investigated well defined. Moreover, these articles, conference papers, and dissertations have a clear statement of purpose, hypotheses to be tested or a well-defined focus of inquiry, with research methods thoroughly described. A literature review or a background to the research, as well as a reference list or bibliography accompanied the publications. Finally, we examined results and conclusions that are drawn from these items.

Each identified item was entered into the database and with author(s), date of publication, journal, participants, method(s), location of the study (if available), themes, and an abstract included, when possible. Links to freely available articles are also included in the database. A breakdown of the number of articles from each publication was carried out, as well as a search to identify active researchers. We also examined patterns of authorship, and research methods used.

FINDINGS

This research seeks to understand the current state-of-the-art of research in school librarianship by examining the 940 items in the Open Source School Library Research Database from 1995 to 2016. The findings are organized by specific questions investigated in this study.

How many research journal articles in school librarianship were published between 1995-2016?

In all, 340 articles that had a clear literature review, a research methodology, clear research questions as well as findings and a discussion section were examined from the two major journals and a number of other publications. A total of 180 articles were identified in *School Libraries Worldwide*, 111 were found in *School Library (Media) Research* and 49 articles were obtained from other journals published over the same time period. These other journals included *Access*, *Current Studies in Librarianship*, *International Journal of Library and Information Services*, *Mousaion*, *Journal of Education for Library and Information Science*, and *Library Philosophy and Practice*.

How many dissertations and theses from 1995-2016?

There are currently 398 dissertation and theses in the database. The initial search focused on school libraries, school librarianship and teacher-librarianship. The next search will also include information literacy, collection development, reading promotion in school libraries and other relevant research.

How many conference papers in proceedings from 1995-2016?

The database includes 202 conference papers. The majority of these come from the Research Forum of the International Association for School Librarianship annual conferences.

What are the most frequent methods of data gathering used for research?

The most popular choice for data gathering in the research articles was the questionnaire/survey method. A number of researchers used survey monkey and other online methods while many created their own instruments. Interviews and content analysis were very popular choices as well, followed by participant observation and focus groups. The following table provides a breakdown of the diverse methods used for doing research. It should be noted that in many cases researchers adopted more than one method to gather data, thus combining several methods to triangulate their data.

Type of Data Gathering Method	Frequency
Survey	322
Interviews	282
Questionnaire	210
Qualitative	107
Observation	94
Case Study	88
Content Analysis	81
Mixed Methods	61
Focus Group	50
Quantitative	40

Table 1: Most frequent methods of data gathering for research

Who are the key researchers in the area of school librarianship?

One hundred researchers have two or more pieces of research in the database. The most prolific researchers have five or more pieces of research between 1995-2016.

Researcher	Research Items in the Database
Dianne Oberg	12
James Herring	11
Marlene Asselin	11
James Henri	11
Marcia Mardis	11
Jennifer Branch-Mueller	8
Anne Clyde	7
Ross Todd	6
Nancy Everhart	6
Genevieve Hart	6
Ken Haycock	6
Carol Gordon	5
Audrey Church	5
Violet Harada	5

Table 2: Key Researchers

Five researchers have more than ten items in the database and nine researchers have five or more items in the database. There were another 25 researchers with three to four items in the database.

What were the authorship patterns in the items in the database?

A single author writes the vast majority of research items in the database. Removing dissertations and theses (398 items), we are left with 542 articles and conference papers. We notice then, that more than half of research items are published by a single author.

Number of authors per research item	Frequency	Percentage
Articles/papers with one author	317	58.5
Articles/papers with two authors	142	26.2
Articles/papers with three or more authors	83	15.3
Total	542	100

Table 3: Authorship patterns (with dissertations and theses removed)

What were the main themes in the research papers/articles?

A more careful examination of all the items is needed before a complete classification of each item can be done. However, using information provided by the author(s), the indexer, or in the basic abstract, we can learn much about the research topics/themes.

General Research Area	Number of items in database
Information Literacy	113
Information Seeking and Needs	59
Information Systems/Information Technology	58
Higher Education	37
Elementary, Middle and Secondary Education	83
Teacher Education/LIS Education	39
School Libraries	65
School Administration	208
Literacy, Reading and Reading Promotion	69
Teacher-Librarians/School Librarians	80
Professional Issues	19
Principal Support	16
Management/Leadership Issues	32
Instruction, Curriculum, Teaching and Learning	37

Table 4: Research Topics

DISCUSSION

This research examined the current state-of-the-art of research in school librarianship by examining research published in journals and conference proceedings as well as unpublished dissertations and theses in school librarianship published in English and within the time frame of 1995-2016. In all, 940 items were entered into the Open Source School Library Research Database. Published journal articles make up 340 of the items with 180 being published in *School Libraries Worldwide*, 111 published in *School Library (Media) Research* and 49 articles were obtained from other journals.

The most popular choice for data gathering in the research articles was the questionnaire/survey method. Interviews and observation were very popular choices as well, followed by case study, content analysis and mixed methods approaches. After excluding dissertations and theses, almost 60% of the research items had a single author while about 25% had two authors. It would be interesting to examine this over time (perhaps in 5 year chunks) to see if the single author publishing is increasing, decreasing or remaining stable. Tenure and promotion decisions may mean that more researchers are publishing alone. Research by Donaldson and Emes (2000) examined the challenges for women academics and found that “women academics collaborate more frequently than men do” (Discussion, para. 2). Since we know that the majority of researchers in school librarianship are women, perhaps authorship patterns differ from other disciplines (Cruse & Rosato, 1992)

The most prolific researchers as revealed by this review were Dianne Oberg, James Herring, Marlene Asselin, James Henri and Marcia Mardis. This review identified 39 authors who had 3 or more research items -- a far cry from the 57 documented for the 1995-1999 review (Clyde, 2001, p. 71) and 43 authors for the 1999-2003 (Clyde, 2005, p. 6) - especially given that this was a 20-year span. The trend

may indicate that researchers are publishing fewer research papers in the area of school librarianship or perhaps publishing in a variety of librarianship and education areas. This may also be an indication that there are fewer school library researchers working now as compared to 20 years ago. It was impressive, however, that there were 100 researchers who had two or more items in the database.

Mardis (2011) found that information skills and literacy, information technology, reading and reading promotion, and education in LIS made up over 50% of the research topics between 1998-2009. Reviewing the items in the database in the present review, these topics are also very popular. Each item will be reviewed in the next phase of this research study and so classification using Mardis (2011), Aharony (2011), Koufogiannakis, Slater and Crumley (2004), and Branch-Mueller and Beesoon (2015).

IMPLICATIONS AND CONCLUSIONS

This research examined the 940 items in the Open Source School Library Research Database. Similar trends from previous research were confirmed: research in school librarianship is published in two major journals -- School Library (Media) Research and School Libraries Worldwide. There are a small core group of researchers working in the area of school librarianship. More than half of all research is by a single author.

It is with great pleasure that we at the University of Alberta begin to rebuild the database of research and researchers of L. Anne Clyde. The project is ongoing and more analysis of the items is needed. However, 940 items is a great start and will allow those interested in school library research to have a starting point for locating research items. Researchers will be able to add to the database starting in the Fall of 2017 and research items will be classified using the Branch-Mueller and Beesoon Research in LIS Classification scheme. More detailed information including geographic location of the research will also be added to the database going forward.

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Teacher-Librarians and ePortfolios: A Perfect Match

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ABSTRACT

This paper introduces the concept of portfolios and ePortfolios and then presents an argument for teacher-librarians to implement ePortfolios in their schools. Literature about the different types of ePortfolios (process/learning, assessment, showcase/presentation) is summarized and research about integrating ePortfolios in elementary classrooms is shared. A summary of the reasons why teacher-librarians are uniquely qualified and situated for this work is also included.

Keywords: Portfolios, Elementary Schools, Teacher-Librarians

INTRODUCTION

The teacher-librarian occupies a critical position in the K-12 school system. Building on the notion that the school library is the “hub of the learning community”, the teacher-librarian’s role becomes central to the successful delivery of the curriculum. The teacher-librarian’s cutting edge knowledge and skills in pedagogy, curriculum, and technology are essential in supporting students’ learning and fostering lifelong learning. Thus it has become a challenging yet unique responsibility to support learning across content areas and grades.

As traditional pedagogical approaches “come under increased criticism” (Bures, Barclay, Abrami & Meyer, 2013, p.1), and as the “demands placed on schools today, ... intensified by globalization, declining resources, greater calls for accountability, and the impact of information technology” (Brown & Bruce, 1997, p.201), it is not by coincidence that the approaches to teaching and learning are constantly changing. Educators, including teacher-librarians, are challenged to modify their teaching and learning strategies, and the school library must incorporate new programs to reflect and meet the changing needs of the society and the school community. e-Portfolios, one of the latest innovative educational strategies and tools, are gradually gaining grounds in K-12 classrooms. It is important for students to know the content of each subject and be able to apply knowledge and skills solve real world problems. e-Portfolios, as a process and product, can used to enhance learning and assessment at all levels and across all subjects. Thereby ideally complementing the role of the teacher librarian as an educator and information specialist.

PORTFOLIOS

“The word *portfolio* is derived from the Latin words *portare* meaning to carry; and *foglio*, meaning sheet of paper” (Vermilion, 2008, p. 67). In the early beginnings, a portfolio was used mainly to represent a container or “portable case” (Bryant & Chittum, 2013) of samples of work from professionals in fields such as fine arts, music writing and architecture who are seeking employment. The works in the portfolio showcase the talents and capabilities of the applicants and the prospective employers are able to formulate an accurate persona of the owner of the portfolio.

The purposes and principles underlying the integration of portfolios in classrooms are no different. According to Eby, Herrell and Jordan (2006), at the K-12 level, students select diverse samples of their work based on goals agreed on between the teacher and the student, and these works are showcased and presented for assessment in folders. The folders with the individual student's name written are usually stored in well labelled, sometimes colored boxes until they are needed. A single folder not only hosts the finished products but drafts and revisions of assignment and projects are included. Eby, Herrell and Jordan (2006) further noted that through various programmes such as portfolio days, students

celebrate their work. Eby, Herrell and Jordan (2006) also explained that each sample provides statements that explain why the work was included in the portfolio. By reflecting on the process and the end product an accurate evaluation of the student's growth and development over the period may be made. Additionally, the student's develop their "metacognitive abilities that can be applied to future self-assessment in academic or real-life settings" (Eby, Herrell & Jordan, 2006, p. 279).

ePORTFOLIOS

The shift from binders to the online environment creates portfolios that are more flexible, scalable and dynamic (Bryant, & Chittum, 2013). The owners add, share, and alter their work more easily. Whereas the Texas Education Agency (2013) described an ePortfolio as a curated collection of digital artifacts representing hard work, creativity and collaboration; Barrett (2007) elaborated:

An electronic portfolio uses electronic technologies as the container, allowing students/teachers to collect and organize portfolio artifacts in many media types (audio, video, graphics, text); and using hypertext links to organize the material, connecting evidence to appropriate outcomes, goals or standards It is a collection of work that a learner has selected, organized, reflected upon, and presented to show understanding and growth overtime. (p. 436)

The educational ePortfolio has its roots in universities and colleges, but it is "gradually working its way in the lower grades" (Vermilion, 2008, p. 67), cutting across all disciplines and grades. In practice, eportfolios are used by teachers and teacher-librarians to demonstrate learning, showcase the students capabilities, and enhance the assessment process. "As a technological innovation rather than conceptual", the major uses are to: a) plan educational programs, b) find a job, c) evaluate a course, d) monitor and evaluate performance e) document knowledge, skills, abilities, and learning; f) track development within a program (Aygün & Aydin, 2016, p. 208). A key difference between the traditional portfolio and the digital version is that the traditional portfolio mantra of collecting, selecting, reflecting, projecting, and celebrating is now leveraged by technology to include archiving, linking/thinking, storytelling, collaborating and publishing (Barrett, 2005). Importantly, it tracks learning by providing authentic evidence.

An ePortfolio is about authentic learning and assessment. Thus its integration in teaching and learning is based on sound theoretical foundations ideal for 21st century classrooms. According to Barrett (2007), although K-12 learning places greater emphasis on ePortfolios that are for showcase purposes (highlighting competencies of students), there are also examples of their use for assessment and learning. It must be noted that the uses are more often interconnected and overlapped. The assessment ePortfolio model is more aligned to the positivist paradigm where the "student's attainment is documented based on predetermined, external standards and meaning is constant across users, contexts, and purposes" (Nicolaidou, 2013, p. 405). The learning ePortfolio model is associated with the constructivist paradigm and is context determined and "assumes that meaning varies across individuals, over time, and with a purpose" (Nicolaidou, 2013, p. 405). Barrett (2007) noted that the artifacts of the learning ePortfolio tell stories about the student's learning process and development and, therefore, the same artifact may have different meanings to different students.

The learning eportfolio emphasizes a student-centered approach instead of a teacher-centered one. When students are actively involved in their learning, the locus of control is shifted from the teacher to the students, thereby giving the students greater autonomy. Since it is argued that students learn by doing (Lombardi, 2007), by actively involving in their learning, and gaining experiences solving real-life problems (Har, 2013) creating an ePortfolio is an effective educational strategy that fosters deep engagement on the part of the student. However, Barrett (2016) advised that students in lower grades will need greater attention and more scaffolding since it can be difficult for students below 3rd grade to take responsibility for their learning. In spaces where the curation of artifacts is done mainly by the teacher, the learning process becomes more teacher-centered. This may be unavoidable at the lower levels but the teacher then should find the balance.

Additionally, there are theoretical arguments that ePortfolios improve reflection (a higher order skill) and learning outcomes as well as increased integration of knowledge, and self-regulated learning (Bures, Barclay, Abrami, & Meyer, 2013; Nicolaidou, 2013). “When students incorporate artifacts from multiple disciplines and are asked to synthesize and reflect on them”, an ePortfolio become a means of constructing knowledge and developing core skills (Bryant & Chittum, 2013, p. 190) such as reflection and metacognition. Finally, at the elementary level, ePortfolio creation enables students to demonstrate both more traditional literacy skills as well as new literacy skills as they incorporate and blend diverse artifacts from text to visual, auditory and multimedia (Bures, Barclay, Abrami, & Meyer, 2013).

ePortfolios in K-12

While literature on ePortfolios as a learning tool is growing and is finding a place in K-12 classrooms, published empirical studies are still limited (Barrett, 2005; Bryant & Chittum, 2013). And yet those available are generally based on practice at the postsecondary level (Bryant & Chittum, 2013), and less emphasis is placed on its application in the K-12 education. The assumption is that students at the elementary level lack the requisite literacy skills including computer skills (Lin, Yang, Hung & Wang, 2006; Saarinen, Seitamaa, & Hakkarainen, 2016; Texas Education Agency, 2013). Interestingly, these students who are born in the digital age and may have technology at their ‘finger-tips’ often face challenges when the technology is to be used in educational settings. However, new ePortfolio programs and web-based tools can make ePortfolio creation easier than ever.

In a comprehensive review of literature done by Saarinen, Seitamaa-Hakkarainen, and Hakkarainen (2016) covering the period 1996 to 2012, only 49% of the total articles located presented original data on the use of ePortfolios. Then, of the 49% of empirical studies identified, 69% were affective describing participants feelings and opinions about ePortfolios, and 31% were about students outcomes. Additionally, 42% were more descriptive or practice oriented. Another 10% were technological, addressing issues of models, platforms and usability. Although, there was no data indicating the educational levels, a gap exist regarding empirical research on the use of ePortfolio at the K-12 level was evident.

The Myportfolio initiative in New Zealand under the auspices of the Ministry of Education is an exemplar of an outstanding ePortfolio project at the elementary level. Munroe (2011) explained that at no cost to the individual schools, elementary students and teachers from across New Zealand have the opportunity to benefit from the scalability and flexibility of ePortfolios in learning. Using the ‘MyPortfolio’ platform, students and teachers create electronic portfolios for various uses, receive feedback on them, engage in discussions, build group ePortfolios and share files. Social media functionalities allow the users to connect with each other, form communities, and publish the content they have created. Importantly, evidence of students learning is gathered easily and effectively, validated by the teachers, and showcased when necessary. Parents can also view their children’s learning trajectory.

In order to determine the teachers’ perceptions of the project, Munroe (2011) interviewed eleven teachers from different schools in New Zealand that implemented ePortfolios. The results indicated that all 11 teachers valued the use of ePortfolios and inferred that it was beneficial to the students. In addition, all but one confirmed a willingness to use ePortfolios as a learning tool if they were to move to another school.

Process or Learning ePortfolios

Zubizarreta argued that the primary motive of a learning ePortfolio is “to improve student’s learning by providing a structure for students to reflect systematically over time on the learning process, and to develop the aptitudes, skills and habits that come from critical reflection” (as cited in Barrett, 2007, p. 438). Critical actions within a learning ePortfolio include observation of students’ progress, setting of goals, receiving feedback and making changes based on the feedback, reflection on the process, and self- and peer-evaluation. These actions generate deep learning and create new knowledge.

Nicolaidou (2013) engaged in a study with 4th graders at the Cyprus Primary School to determine if a process ePortfolio can positively affect students’ writing performance. The students created an ePortfolio in a Language Arts class to demonstrate their ability to write a structured and well-organized

essay that, among other things, is cohesive, grammatically correct, and free from spelling and punctuation errors. Through a mixed method case study, the 20 students who participated in the study were evaluated at the end of a one year period. The results indicated that the students valued feedback from their peers (formative assessment). Another important finding indicated that an ePortfolio can support the development of primary students' writing performance and peer feedback skills in essay writing. An ePortfolio "supports a more authentic process of writing as students go through a process of revising draft versions, reflecting on them, and finally publishing or finalizing work" (Bures, Barclay, Abrami, & Meyer, 2013, p. 3).

Although responses from the teachers in the same study were also positive, the findings indicated that low-ability students did not benefit as much as average and high-ability students. According to Nicolaidou (2013), low-ability students lacked the necessary skills to make the suggested changes based on comments from peers and teachers. And they also lacked the ability to make valuable comments on their peers' ePortfolios. In light of the fact that there are inherent features and functionalities for individualized learning, teachers should provide these students with more support and guidance.

Saarinen, Seitamaa-Hakkarainen, and Hakkarainen (2016) examined students' experiences using ePortfolios in craft education over a three year period in a Finnish school context. As a support for learning and assessment tool, ePortfolios were used not only to demonstrate samples of the working processes and advancement of the students' understanding but also their strengths and weaknesses. Included in the students' ePortfolios were artifacts in the form of photos, and text that explained and described the artifacts, and the students' progress and feelings while creating the ePortfolio. The ePortfolios were evaluated, and contributed to the students final assessment at the end of the year.

The findings from the study indicated a 100% satisfaction with the educational value of ePortfolios especially in relation to support for memory and retention. Students were satisfied "with the method of collection of authentic evidence of their own learning process and were confident in their own abilities to work with ICT" (Saarinen, Seitamaa-Hakkarainen, & Hakkarainen, 2016, p. 36). By incorporating feedback, young students may be motivated to be better writers but teachers will have to be prepared for the long haul since the process of creating eportfolio is time consuming (Aygün & Aydin, 2016; Bures, Barclay, Abrami, & Meyer, 2013).

Assessment ePortfolios

Most standardized tests especially when using multiple choice questions, have proven inadequate in educational assessment. "Thus ePortfolio assessment is a viable alternative assessment that follows the constructivist theory to support meaningful learning" (Lin, Yang, Hung, & Wang, 2006) by allowing for more contextualized learning and differentiation (Bures, Barclay, Abrami, & Meyer, 2013), and replication of real world challenges (Mueller, 2005).

Barrett (2005; 2007) differentiated between two types of assessment - assessment *for* learning, and assessment *of* learning. ePortfolios that focus on assessment *for* learning tasks are closely linked to formative assessment that tracks students' development over a period of time. On the other hand, ePortfolios used as assessment *of* learning are evaluative or summative ePortfolios (Barrett (2005; 2007)). Assessment *for* learning or formative assessment is the "process of seeking and interpreting evidence for use by learners and their teachers to decide where learners are in their learning, where they need to go, and how best to get there" (Barrett, 2005, p. 16). Both self- and peer-assessment have become a central component to formative assessment. Authentic assessment can be a short assignment or task. What is important is the fact that the task captures the meaning and application of the knowledge in real a setting. In addition to knowing the content, the student should be able to use the knowledge in authentic tasks to construct meaning.

Lin, Yang, Hung, and Wang (2006) examined the application of ePortfolio in visual-art education as a part of the reform process of compulsory education in the Grades 1-9 curriculum in Taiwan. The appreciation of ePortfolio and its use as an assessment tool among 5th grade visual arts students at the Tai-Jiao primary school in Taipei, Taiwan was investigated. Peers were required to make comments on paintings that were skillfully and creatively created by other students, digitized using either a scanner or digital camera, and stored in an online portfolio. The responses from a questionnaire regarding their

understanding and views on peer assessment, indicated that although the students did not like peer-assessment, they concurred that the strategy improved learning and that it was more effective than the traditional forms of assessment such as multiple-choice examinations. “The students think that peer assessment influences their learning attitude” (Lin, Yang, Hung & Wang, 2006, p. 9). They were motivated to pay attention in class because they knew their peers would be critiquing the artifacts in their ePortfolio. Another component of formative assessment is self-assessment. Black & Williams (1998) emphasized that self-assessment is an essential component when anyone is trying to learn, feedback about the effort has three components: recognition of the desired goal, evidence about present position, and some understanding of a way to close the gap between the two” (p. 6). Achievement standards are raised when teachers and students undertake formative assessment on what has been learned in order to make “high stake decisions” (Barrett, 2005, p. 18).

Showcase or Presentation ePortfolios

A showcase ePortfolio focuses on final accomplishments or products (Nicolaidou, 2013). Students show examples of their work and achievement rather than telling about them. ePortfolios empower students to create and own their identities, showcase their accomplishments, and make excellent first impression. Students may determine their future by “putting their best digital footprint forward” (Husid & Wallace, 2015, p. 40). According to Cooper (2016), “not only should students be learning how to do their work, they should be learning and experiencing how to share and market their creations”, and the online environment provides an excellent space to have this done creatively (“Teaching Entrepreneurialism” para. 1). This view is supported by the Texas Education Agency (2013) who purport that by showcasing students’ exemplary works, the ePortfolio in K-12 “can follow the student whether the move is between courses, grades levels, campuses, districts, higher learning institutions, or career” (p. 8). A learning ePortfolio more often serves as a tool for assessment and a showcase of best works.

TEACHER-LIBRARIANS AND ePORTFOLIOS

When students were asked by the Association for Supervision and Curriculum Development (ASCD, 2008) what they wanted from their teachers, They stated that their teacher should:

- Take me seriously
- Challenge me to think
- Nurture my self-respect
- Show me I can make a difference
- Let me do it my way
- Point me toward my goals
- Make me feel important
- Build on my interests
- Tap my creativity
- Bring out my best self (ASCD, 2008, p. 1)

If the above expectations stand true, then the teacher-librarian in the 21st century school library also has a transformational and multifaceted role. The American Library Association (n.d.) states that:

School library media specialists [teacher-librarians] are an integral part of the total educational team which prepares students to become responsible citizens in a changing global society. In today's information age, an individual’s success, even existence, depends largely on the ability to access, evaluate and utilize information. Library media specialists are leaders in carrying out the school's instructional program through their separate but overlapping roles of information specialist, teacher and instructional consultant. (para.1)

Brown and Bruce (1997) used the concept ‘mirror-image plus’ to further expound on the role of the teacher-librarian. “Reacher-librarians must be mirror images of other teacher leaders, while also bringing added value as leaders in teacher-librarianship” (Brown & Bruce, 1997, p. 200). As a qualified teacher with professional training in librarianship, an effective teacher-librarian is able to draw on his/her expertise as a teacher and a specialist in library and information science to solve educational problem.

According to the Alberta Teachers' Association (1993), opportunities for learning will increase and students learning outcomes strengthened if a teacher-librarian is involved in the instructional program of the school.

Long-term Connections with Students

With knowledge and skills in pedagogy, the teacher librarian interacts with the students every year. The teacher-librarian through the dual role as a teacher and information specialist takes on a more active role as teacher and instructor engaged in curriculum development (Asselin, 2001) as well as collaborative teaching and information literacy instruction (Branch, & Oberg, 2001; Brown, & Bruce, 1997; Church, 2008; Scheirer, 2000). Instruction should be flexible and responsive to the needs and interests of each child and at the same time improve student learning.

In a study done by Church (2008) that sought to ascertain principals perception of the role of teacher librarians, 94.6% either agreed or strongly agreed that teacher-librarians should teach information literacy skills to all students, and 91.8% sanctioned a collaborative approach. The teacher-librarian, with knowledge of effective 21st century learning strategies, incorporates the appropriate and relevant strategies, including using Information and Communication Technologies (ICTs) to optimize student learning. Information literacy skills should be integrated in lessons across grades and subjects based on the mandates of the curriculum. This makes the teacher-librarian the only member of the instructional team who has the opportunity to interact with all the students in formal teaching and learning sessions throughout any given academic year. This role situates the teacher-librarian in a central position to support the implementation of ePortfolios in a school.

Leadership in Authentic Assessment

Assessment is the twin of instruction. Teaching is usually followed by assessment to determine if learning has taken place and to what extent. However, the inability of current assessment procedures to assess the full range of essential student learning outcomes, and for teachers to be able to use the information gained for instructional planning, have influenced the consideration for an alternative means of assessment that is more authentic (Callison, 1998). "Research shows that if pupils are given only marks and grades they will not benefit from feedback" (Black & Williams, 1998, p. 8). In a time when accountability to government and other stakeholders has high stakes, alternative methods that reflect how effectively students can apply knowledge in real world context is an imperative. Mueller (2005) suggested that one can only infer from multiple choice questions that a student has acquired the knowledge and skills required based on standards; however the only way to know if the student is able to apply these in a real world situation is to provide authentic assessment.

According to Callison (1998) authentic assessment is an evaluation process that involves multiple forms of performance measurement reflecting the student's learning, achievement, motivation, and attitudes, on instructionally-relevant activities. Mueller (2005) made the case for this form of assessment in the teaching of information literacy since the traditional forms limits the type and quality of information produced. Authentic representations of classroom daily activities, social interactions, use of multiple resources or real life situations are not captured in multiple choice tests (Callison, 1998). The teacher-librarian has a role to play in creating an assessment culture that relies on new understandings of learning and evidence (Thomas, Chow, & Franklyn, 2011). Having knowledge and skills in various types of assessment, the teacher-librarian is in a position to help teachers shift from textbook and multiple-choice exams to alternative techniques such as "performance assessment, portfolios and self-assessment" (Callison, 1998, para. 1).

Leadership in Technology Integration and Support

With the proliferation of technology, there has been an increase in the integration of technology into the curriculum. And the teacher-librarian should be at the helm of "weaving such skills throughout the school community, so that all members of the school community are effective users of ideas and information" (AASL as cited in Johnston, 2015, p. 17) for the purpose of learning. While there are some schools with staff directly responsible for technology, other schools are not as fortunate. In schools with an information technology (IT) person, the teacher-librarian is often required to provide technology

support by working as a partner. In the case where there is no IT staff, the teacher-librarian fills the gap as the key person, or the go-to person for any issue regarding technology. Johnston (2015) noted that the American Library Association task the teacher-librarian as the person with overall responsibility for the management of technology and the infusion of technology in the curriculum. It is expected that the teacher-librarian works collaboratively with the teachers, students, and the technology specialist to this end. “The teacher-librarian serve as an enabler when there is collaborative relationship and as a barrier when the relationship is competitive” (Johnston, 2015, p. 18). As an information specialist, the teacher-librarian should have an understanding of how technology can and should be used appropriately in the classrooms.

Leadership in Research and Inquiry Projects

In many schools the teaching of the complex skills of the inquiry process and research strategies rest with the teacher-librarian. Alberta Learning (2003) stated that:

Inquiry-based learning is a process where students are involved in their learning, formulate questions, investigate widely and then build new understandings, meanings and knowledge. That knowledge is new to the students and may be used to answer a question, to develop a solution or to support a position or point of view. The knowledge is usually presented to others and may result in some sort of action. (p. 1)

The teacher-librarian is uniquely positioned to support inquiry and we know that these skills are of paramount importance in the information age when students face information overload especially as they use the Internet. Understanding how to conduct a research or inquiry project leverages opportunities for students to become not only information literate but critical thinkers, and independent, lifelong learners.

Mancall, Aaron, & Walker (1986) expressed that a critical thinker has the ability to assess the authenticity and accuracy of information and that these are demonstrated when an individual is able to:

- distinguish between verifiable facts and value claims
- determine the reliability of a source;
- determine the factual accuracy of a statement
- distinguish relevant from irrelevant information, claims or reasons
- detect bias
- identify unstated assumptions;
- identify ambiguous or equivocal claims or arguments;
- recognize logical inconsistencies or fallacies in a line of reasoning;
- distinguish between warranted or unwarranted claims; and
- determine the strength of an argument. (“Critical Thinking” para. 2)

The models used to achieve these discrete skills among K-12 students and that keep recurring in literature include Kuhlthau's Information Search Process (1985; 1989); Eisenberg and Berkowitz's the Big6 (1988); Stripling and Pitts's research process model (1988); McKenzie's research cycle (2000); and the Alberta Inquiry model (Alberta Learning, 2003). Despite the varied models, their sole purpose is to ensure that students become information literate. That is, students need to be able to identify when there is a problem to be solved, be able to locate and select the appropriate information to solve the problem, and then use that information effectively to solve the problem and/or make decisions. Through a systematic approach to the development of these skills, the teacher-librarian makes sure that students understand that the skills that are being taught are transferable to other learning situations (Branch, 2003, p. 6).

Meta-cognition Skills

Metacognition or ‘thinking about thinking’ is a fundamental underpinning of the teaching of information literacy skills and lifelong learning. However, Spruce and Garrison (n.d) suggest academic achievement requires more than having students thinking about their thoughts; the ability to plan, monitor, and reflect upon a learning event is metacognition and/or self-regulated learning. They asserted that one important factor of academic success is a student’s ability to monitor his or her own learning

(Spruce & Garrison, n.d.). It is an imperative that teacher-librarians define and articulate their role in the teaching of metacognitive skills (Mancall, Aaron, & Walker, 1986). Students metacognitive skills may be improved by engaging students in authentic activities, and by deliberately and consciously infusing tasks that require self-assessment, making choices, reflecting, evaluating, and monitoring learning (Lombardi, 2007). Reflection, according to Milam (2008) is a “powerful strategy for constructing knowledge and improving retention of information (p. 285). When students reflect on their learning, Milam (2008) noted, they carefully and seriously consider what they have gained from the activity.

The teacher-librarian's role is critical in helping students recognize their strengths and weaknesses and determining useful strategies to help overcome these weaknesses and build on strengths (Spruce, & Garrison, n.d.). The fluidity of the present job market and the infusion of technology in the work processes are just a few of the reasons why we need to help build these skills in students from a very early age. The development and fostering of these skills in students should not be left to chance; students should be taught by infusing them into the curriculum. And using learning ePortfolios as a way to build these skills over time seems like a natural fit for the teacher-librarian.

CONCLUSION

The role of teacher-librarians includes leadership in instruction, research and inquiry, and technology integration. Importantly, students expect that teachers challenge them to think and bring out the best in them. In performing these roles efficiently, the teacher-librarian works with students across grades and subjects throughout the year, draw on their cutting-edge pedagogical and technological skills and knowledge. Since ePortfolios have the ability to document students' learning over time and across grades and subjects, it is a perfect tool and strategy that complements the role of the teacher-librarian. Husid & Wallace (2015) confirmed the pivotal role of the teacher librarian in its creation and implementation in schools. By virtue of teacher-librarian's inherent emphasis “on information literacy: knowing why information is important, when to research it, how to preserve it and when to use it”, the teaching of ePortfolio creation should be a collaborative effort (Husid & Wallace, 2015, p. 40). In so doing, students benefit from the collaboration between a teacher-librarian, classroom teachers, and information technology staff (if present in school) to infuse ePortfolios into the curriculum. By increasing student engagement, embracing active learning, and fostering authentic learning and assessment, ePortfolios take a student-centered approach where students learn by doing, and new knowledge is created. In an era where the role of the teacher-librarian and their impact on teaching and learning often comes under scrutiny, taking the lead on ePortfolio development and support may be just the thing to help administration, teacher, and parents understand the vital role of teacher-librarians in schools.

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Tradition in School Library

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ABSTRACT

This research paper investigates the role of school library in managing and integrating tradition into the curriculum. The research was done through observation and semi-structured interviews with school librarians. One of the roles of the school library as an information and communication center is to nurture and promote heritage and tradition. There are different activities and projects initiated by the school librarians whose intention is to communicate tradition. The questions answered by this research are the ones of how school librarians define and perceive tradition.

Keywords: Tradition, School Library, Curriculum, Invented Tradition, School Tradition

INTRODUCTION

From the research review, most works are oriented towards learning and understanding different cultures for a more tolerant and respectful environment. Our research comes from another angle. We have moved one step backward and tried to understand how tradition can be used as an educational platform. First and foremost, for building information literacy capacity of students and secondary, teachers.

This research consists of two phases. The first phase was to investigate what is tradition and how it is implemented in school library programs so we can further investigate the integration of cultural heritage into the curriculum. This first phase of this research was done under the research for the purpose of the M.A. thesis and the second phase is still an ongoing process. The goal of the research was to investigate how school librarians are using tradition in their work, by using methods of development and presentation of tradition. Furthermore, how they perceive tradition and in what ways are they collaborating with other teachers were investigated.

WHAT IS TRADITION?

From the work of Glassie tradition is “a temporal concept, inherently tangled with the past, the future, with history“ (Glassie 1995:399). He also admits that there are many variations of this term's definition and states that it is „a continuous process situated in the nothingness of the present, linking the vanished with the unknown, tradition is stopped, parceled, and codified by thinkers who fix upon this aspect or that, in accord with their needs or preoccupations, and leave us with a scatter of apparently contradictory, yet cogent, definitions“ (Glassie, 1995: 395). Still, he sees nothing wrong in having many definitions as it just brings to the wealth of semantical interpretation which enables us to better understand the complexity of the term.

In English language, tradition has its origin in French language and has been accepted during 14th century. The dictionary defines it as „The transmission of customs or beliefs from generation to generation, or the fact of being passed on in this way“ (Oxford English Dictionary). According to the Merriam-Webster dictionary it is “a: an inherited, established, or customary pattern of thought, action, or behavior (such as a religious practice or a social custom), b: a belief or story or a body of beliefs or stories relating to the past that are commonly accepted as historical though not verifiable.

Folklorists, see tradition as a complex term, for instance, Seeger (according to Ben-Amos 1984:99) distinguishes “three separate meanings in the use of tradition: 1. An inherited accumulation of material; 2. the process of inheritance, cultivation, and transmission thereof; 3. the technical means employed. On the other side Holbek (according to Ben-Amos 1984:99) sees it as the “process of handing down, the material that has been handed down, and the quality – positive or negative, depending on the speaker's perspectives – that people attribute to the subjects that connote either the process or material.

What is a constant is that tradition is definitely related to history and our written or orally transferred memory. So tradition is often put in context with the terms like culture, customs, conventions, and routines. We understand that tradition and culture are interrelated and as Glassie states “Culture resist time, tradition is a temporal concept“. (Glassie 1995:399). Further, he explains that they „share a vulnerability to superorganic conceptualization. Both are, at times, assigned deterministic roles in human affairs...are created by individuals out of experience” (Glassie 1995:398).

On the other hand, there is a difference between convention and routines. As Hobsbawm points out that they are not tradition since “... their functions, and therefore their justifications, are technical rather than ideological. They are designed to facilitate readily definable practical operations and are readily modified and abandoned to meet changing practical needs“ (Hobsbawm 1983:5). What seems the most appropriate look about tradition is one that Noyes (2010:237) suggests tradition as communication which in her text is how scholarship focuses on tradition.

When discussing tradition there are also different types of tradition or different classifications. For instance Noyes (2010) divides it into three groups: tradition as communicative transaction; tradition as temporal ideology and tradition as communal property. Williams (2006) discusses tradition in the discourse of culture defining three levels: lived culture, recorded culture and selective tradition. On the other hand, Hobsbawm (1983) identifies specificity of tradition by exploring “invented tradition” which has its reference in the historic past but the continuity is largely factious. We have decided to take into account all these aspects of tradition and identify which ones are used by the school librarians.

TYPES OF TRADITION APPLIED IN SCHOOL LIBRARY

Tradition can be utilized in different ways. In Croatian school libraries tradition is mainly integrated into the curriculum through different activities such as projects, workshops, public discussions etc. It is usually presented through folk dance, exhibitions, readings, festivals or visits to information and heritage institution in the city, county or wider national territory. In some schools it is heavily promoted through school cooperative where even items created can be sold at the fairs and the income is again used for activities related to tradition. Pupils find history interesting and it engages them to further thinking and research about different topics. Also I enables them to connect same topic or historical period in different subjects.

School librarians’ work in Croatia is divided into three segments – teaching, professional library work and cultural activities. Although tradition is integrated into educational segment it overlaps with the cultural and public activities. In this type of activities, there is an openness to organize cultural work through lectures, public discussions, competitions, fairs or to collaborate with other cultural institution (museums, archives, theaters). This category of activities is crucial in the context of expanding tradition.

So which types of tradition are used in the school environment? We could define 3 most commonly used:

- **Tradition through performance** – enables seeing and developing different customs and values. As Dressman states „Social identity is not a static "given" for individuals based on biology or history, nor can it be considered the summative product of all the social categories an individual can identify for herself or himself and so every performative act is no doubt a "doing" of multiple categories of identity involving complex patterns of interaction and exchange among them“ (Dressman 1997:322—323).

For example, Croatian folklore customs in school presents a typical project where for instance all the performances are related to the certain dialect, for instance northwest Croatian dialect under the performance called „Kajkavijana“. During this performance period, different songs and dances are reproduced in traditional folk costume, plays performed on the dialect and literary works read. Through such performance, tradition is kept and history is not only retold but relived. Although, we focus on the ways pupils tradition is brought to pupils and how will they perform it this becomes a part of their everyday life performance.

- **Selective tradition** – based on Williams (2006) three levels of culture which he divides as following. The first level is the 'ideal' culture when it is a state or process of human perfection, in

terms of certain absolute or universal values. The second level is the 'documentary' culture or when it becomes the result of intellectual and imaginative work in which human thought and experience are variously recorded. And the third one is the 'social' definition where culture is a description of a particular way of life, which expresses certain meanings and values not only in art and learning but also in institutions and ordinary behavior. This means that the culture can be either lived in a particular time and place and is accessible only to the ones that have lived in it or if it is recorded then it becomes available to everybody. Still, what we then experience is a *selective tradition* as there is only a part of the culture taken to represent the whole period.

Williams (2006) elaborates "the selection begins within the period itself; from the whole body of activities, certain things are selected for value and emphasis. In general, this selection will reflect the organization of the period as a whole, though this does not mean that the values and emphases will later be confirmed...The selective tradition thus creates, at one level, a general human culture, at another level, the historical record of a particular society; at a third level a rejection of considerable areas of what was once a living culture."

In the school library, selective tradition is when we choose parts of tradition which we want to use in order to accomplish our goals. Librarians can choose parts of tradition to bring it closer to the pupils and transfer to them only partial or selected customs and tradition. Selective tradition is very interesting because even if we choose a small part of some tradition or custom we do not change its original form but its context as it is usually adapted for the intended purpose

- **Invented tradition** - is taken to mean a set of practices, normally governed by overtly or tacitly accepted rules and of a ritual or symbolic nature, which seek to inculcate certain values and norms of behavior by repetition, which automatically implies continuity with the past. In fact, where possible, they normally attempt to establish continuity with a suitable historic past. (Hobsbawm, 1983:5)

School librarians choose which customs and tradition they will select to work with pupils. For example, wedding motive by whom they will show tradition. They are not taking all the customs from certain culture but selectively choosing wedding customs. In this way, they bring history to pupils. They choose elements from the history that they will bring to the present, present them and teach students about them. School librarians are actually inventing tradition because they choose something from history and then adapt it to their and their pupils' interests. The tradition that they are creating becomes a project. As this is lasting for several years it becomes a "school tradition".

PERCEPTION OF TRADITION

The research was conducted in three primary schools during a three weeks period in June 2015. It was done as a fieldwork where the researcher was not only interviewing school librarians but also observing them during their work with students. The observation did not influence the teaching process. They were asked to explain how they use tradition and to explain their behavior and actions. The rest of the school community was surveyed through the questionnaire to see their perception of tradition and how they define it.

Interviewed librarians have started from the task to transfer knowledge to students and have come to a conclusion that transferring knowledge to and building knowledge in pupils is best done by utilizing tradition. This proved to interest students the most. Librarians are using tradition, which is not fictive but is adapted for their own contexts, it is constructed and easily established but only in one environment i.e. school. Classes and schedules are fixed and time spends in the library enables correlation between curricula. This enables tradition to grow. One example of how they combine tradition with present activities is when teaching about reference work. They introduce reference work by explaining encyclopedia and putting it into the cultural context by explaining that the word in its today sense was first used by a Croatian philosopher Skalić, Pavao (lat. Paulus Scalichius) in 1559 in his work published in Basel - *Encyclopaediae see orbis disciplinarum tam sacrarum quam profanorum epistemon*.

So analysis of interviews showed that school librarians perceive tradition as:

- a) **Tradition as heritage and foundation of social development** – Tradition as a heritage can be material or intangible. Tradition is majorly seen as a heritage that was left by our ancestors who have thought that it is worth saving. Some of the explanation of tradition are: *„Tradition is valuable heritage, both material and spiritual which we have received from our ancestors“*; *„It is cultural wealth of our ancestors“*; *„Tradition as a foundation for personal and social growth“*; and *„Behavioral habits (and things that go along with it) which are characteristic for certain group give a framework and thus are transferred from generation to generation“*.
- b) **Tradition as a custom** – For them tradition is customs, oral communication, and intangible heritage. Most of the participant emphasize that tradition is mainly intangible heritage *„Tradition, for me, is set of customs, values, habits, and ways of engagement and transfer of values which enrich life“*. This confirmed their viewpoint that tradition is customs, habits, events, values, and items which delineate us and by which we define ourselves and our identity through history or by creating our own values. *„Tradition is part of our everyday life. It is present in every pupil and school worker. Tradition and etiquette which I do with pupils together with practical handwork“*. For one of the participants, tradition is an even bigger concept as it represents her country and history, the best of both worlds. *„Tradition is paintings...the best that people have made. It is our cultural heritage, our architecture, our literature, art“*
- c) **Tradition through time and space** – Tradition is definitely timely defined. As one of the participants states *„It is something that exists from antiques“*. Although sometimes we cannot prove how long certain tradition exists, it is a tradition if it is applied through several generations, and if it has entered social and cultural context as tradition. There are old traditions which are not rooted in folk and very little people know about them while on the other side there are relatively young traditions, existing only couple of years and the majority already knows about them. So the question is: Is this old tradition then less worth? All participants emphasized that tradition is keeping the things that were before us. Preservation and evaluation of our roots, culture, customs, and language through oral communication of the knowledge and customs which should be more actively promoted in culture and people. Because if we stop thinking about the past what does it say about our future? One participant summarizes *„it is set of customs that defines us today which should be kept, nurtured and never forget“*. Although majority have oriented themselves towards time dimension, some of them give more importance to the space dimension stating that *„Cultural heritage of our region are clothes, music etc.“* They emphasize that this is their tradition which belongs to them as the inhabitants and the heiresses of the ones that have lived in a certain area not belonging to everyone.
- d) **Tradition and traditional customs** – has been identified as two different concepts. One participant states that there is a huge difference between tradition and traditional customs, giving examples of traditional turkey for Christmas while traditional customs are the ones that live in the people such as the ones connected to the significant dates in the national calendar.

When asked about the importance of tradition and how they feel about the tradition in school. The majority of participants stated that tradition is valuable in a life of individual because it enriches people, family, and society in general. *„Apart from being the most important thing from the past“, „it is a pledge of preserving identity and future“*. Another participant states that it teaches us the difference between right and wrong. While the other states that tradition *„enriches our everyday life, connect people and families and brings us closer to fundamental values“*.

Regarding tradition in school the majority thinks that tradition can be incorporated in any subject if the teacher is willing to do so. Still, tradition is currently best taught in a subject such as Croatian language and art. As tradition is incorporated in every aspect of our lives in schools it is best realized through different thematic activities.

TRADITION AS PERFORMANCE IN SCHOOL LIBRARY

Folklorist state that every creation of your own life is a performance so the question is are school librarians performing their „school librarians’ role“. According to Kovačević et al. (2004:149) they

„appear in a role of the person who will prepare a stage where learning will happen“. Therefore, the librarian is the person which brings pupils different kinds of knowledge. During their education, school librarians have learned what it means to be librarians and learn ways of how to be librarians so in a way they are acting their role in school and in front of pupils. As we all are entering different situations during our life, we are learning from examples, experience and upon it shape our behavior. We could say that even school librarians have their professional tradition which differs from teachers and other librarians.

In our interaction with others (pupils, teachers and parents) librarians present themselves in the best of light and they wish to be seen by others in this way, the way that they have presented themselves. This becomes more than just a role in the school library as this presentation becomes part of our daily life. As one of the participants states “even in my private life I am school librarian...when I enter bookshop and see a child choosing books, I instinctively approach the child and help him choose the best book for them...this happens even in a space that is not my original stage”. According to Goffman this becomes a facade and not a mask as it is a general picture based upon facts gathered upon us. And when we become somebody, like school librarians, we accept prearranged facade thus this becomes our role. In words of Rihtman-Augušin, “culture is the way of thinking and behaving, action. Cultures are differing not only by how people work and live but what they think of themselves and how the act...what happens in the gap between their thinking and behaving” (Rihtman-Auguštin 1984:13). So the question is do we have our school library culture and how it differs in traditions and cultures around the world.

Each year by choosing a tradition such as wedding customs, they create a yearly event with singing and dancing and art products. In this way, school librarians take “old tradition” and create “new tradition” valuable to their school, pupils and the whole community. Projects of yearly performance involve teacher, pupils, and parents as they want to be part of this activity in the future. Furthermore, artifacts that pupils have made in “tradition workshops” are sold at fairs where students share their experience of handwork with the community.

CONCLUSION

Tradition in library becomes of growing importance as time passes by. With tradition, we transfer traditional customs to our pupils. Tradition is a great part of school librarians’ work. Still, school librarians are not only becoming keepers of tradition but also inventors of the “new traditions”.

Although their perception of tradition is overlapping, the activities and the ways how the communicate tradition differ. What makes integration of tradition into curriculum is the involvement of the school community.

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Challenges and Issues That Are Faced by the Sri Lankan School Library Staff (2000-2016 period)

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ABSTRACT

This study focuses on challenges and issues faced by the Sri Lankan School Library staff recruited under the General Education Project 2 (GEP 2). The study was conducted in order to identify the pros and cons of the GEP 2 Library staff training project. 4000 teacher librarians were recruited to the school libraries under the GEP 2 Project. The National Institute of Library and Information Science (NILIS), University of Colombo, was established under this project. In 2003 NILIS introduced Masters, Post-graduate Diplomas, Diploma and Certificate courses in Library Sciences, in order to train the newly recruited teacher librarians and support staff. This study proposes to reveal the main factors which contributed towards the inadequate number of students for the NILIS courses, which were mainly due to the policies of the government regarding staff training, and the school libraries in Sri Lanka. This study was carried out with the available written documents, communications, and face to face interviews, with the relevant parties. NILIS is struggling to improve the training of school library staff throughout the island in numerous ways, in spite of the red notice by the authorities to close down the Institute. Subsequently due to the best practice of NILIS it was possible to convince the officials of the Ministry of Education regarding the importance of School libraries, and staff training, which resulted in the increase of the number of students from 26 in 2013, to 250 in 2016.

Key words: Teacher Librarians, School library, General Education, Teacher Librarians, Sri Lanka

INTRODUCTION

According to the Sri Lankan school census (2016) there are 10162 government schools in the island. The number of students who study in these schools from grade one to thirteen are 4,143,330. All these schools have school libraries in different capacities. Before 2000 the school libraries in Sri Lanka were isolated units and were not adequately equipped with the necessary information resources or staff. The school teaching and learning took place without the usage of information resources. The General education reforms implemented in Sri Lanka since 1995 onwards with the world bank assistance, aimed to develop student centered education, instead of teacher centered education. The development of the Sri Lankan general education system consisted of 8 components. One of the eight components of the General Education Project 2 (GEP2) was to develop School Libraries and Resource Centers (SLRCs). The GEP2 project totaled US\$ 83.4 million, according to the 2006 WB project completion report, with US\$ 5.9 million initially allocated for the library component (Wijetunge, 2003). This Library component aimed to provide books, equipment, furniture, and training for staff in library management; IFLA/UNESCO (2006) outlines in its *School Library Manifesto* the mission, goals, funding, staffing and operations and management of school libraries. The manifesto states the school library is to 'provide information and ideas that are fundamental to functioning successfully in today's information and knowledge-based society. The school library equips students with life-long learning skills and develops the imagination, enabling them to live as responsible citizens' (p.1). Therefore, the school libraries play a very important role in the general education system of Sri Lanka.

According to the World Bank plan, establishing 4,000 School Library Resource Centers and recruiting 4,000 teacher Librarians were given priority under the library component. The National

Institute of Library and Information Sciences (NILIS) was established within the University of Colombo, with the primary objective of training, awarding certificates, Diplomas and post-graduate degrees for the school library staff. 4000 graduates were selected to be trained as Teacher Librarians (TL) under the GEP2 project, in order to assist with the government general education reforms. These TLs were expected to assist with the implementation of resource-based teaching and learning at school level. At the same time the School Library Development Unit (SLDU) was established within the Ministry of Education to supervise the SLRCs and to carry out the library development successfully. A model School Library Resource Centre was built in each province, in addition to the 4000 SLRCs. This model library, normally a two-storied building, comprised of books and printed materials on one floor and audio-visual material and computers/internet facilities in two sections on the other floor. The model SLRC's role is to be an example to the other SLRCs of the province. Today, out of the nine model libraries, only one is operating fully. That is the Rangiri Dambulla National School's SLRC in the Central Province of Sri Lanka. The other model SLRC's are not functioning satisfactorily. Some are not well equipped and not managed by teacher librarians. They are namely, 1. Jaffna Central College 2. Debarawewa National School 3. Galgamuwa National School 4. Princes of Wales College, Moratuwa 5. Medirigiriya National School 6. Aligar National School, Eravur 7. Embilipitiya National School 8. Wellassa National School, Bibile.

NILIS CONTRIBUTION TOWARDS SCHOOL LIBRARY STAFF DEVELOPMENT IN SRI LANKA

NILIS commenced its educational programmes in 2002, by conducting lectures for the newly recruited teacher librarians. Accordingly, 5-day lecture programs were conducted island wide, to raise awareness among the teacher librarians regarding the new concepts introduced to the school library sector. Since the 5-day training programme was inadequate to obtain a thorough knowledge about the new concept and to practice the new reforms, in 2003, NILIS introduced postgraduate courses for the teacher librarians. Accordingly, Masters and postgraduate diploma courses in school librarianship were commenced. The expertise of local and international professionals in the field of education as well as library and information sciences was obtained in the preparation of the curriculum for the above courses. Later on, NILIS commenced courses for the other staff in the school library sector, such as diploma (DSL) and certificate courses in librarianship (CSL).

Initially, the school library in Sri Lanka functioned as a unit which did not make a direct contribution towards the school curriculum, or the teaching-learning process. But the new courses had been designed based on the concepts of Resource based, competency based and information literacy learning. When applying the above concepts to the enhancement of the quality of the teaching-learning process the school library becomes an essential center in the school. Thus, the school library is being gradually transformed into a learning resource center. The NILIS courses have introduced four functions which should be carried out by the school library/learning resource center, which will comprise the library, audio visual unit, and the computer center.

- i. Teaching information literacy skills
- ii. Collaborative teaching (subject teacher, teacher librarian, computer science teacher and teacher in charge of audio-visual unit)
- iii. Direct contribution to the Extended learning process (assignments, exercise, projects)
- iv. Appreciation of culture and literature
- v. School library management

In order to achieve the above, a new information literacy model known as “empowering 8” which has been designed using the expertise of local and international professionals was introduced by NILIS to the school library sector in 2004. The model consists of 8 steps which contain a number of information literacy skills. The responsibility of the teacher librarian is to guide the students to attain the information literacy skills contained in the model. Subject teaching by the teachers, and completing of assignments and projects by the students could be achieved fruitfully by using this model. The teachers

who have obtained postgraduate qualifications from the NILIS are engaged in the invaluable task of implementing this new concept within the school curriculum a reality.

However, the mere knowledge of the teacher librarians is inadequate to effectively introduce and implement such concepts within the school library sector. To enable this endeavor to be a success all individuals in the education sector should be made aware of the concepts. Taking these factors into consideration, NILIS, during the past decade has conducted awareness raising programs regarding the concepts, at national, zonal, district, and area levels, for principals, education officers, subject directors, instructors and subject teachers. Accordingly, it can be observed that the school library is being gradually integrated into the teaching-learning process within the school curriculum.

The following table briefly gives information on such programs conducted in 2015.

Subject	Number of Participants
NILIS Symposium 2015(13.11.2015)	144
International Workshop on Instructional Pedagogy for Librarians"	31
Three day workshop on Information Literacy for Library Staff University of Jaffna	48
Three day training programme for the NILIS visiting Lectures	11
Training Programme for Principals and Teacher Librarians in Denuwara Educational Zone	40
Training Programme for Principals and Teacher Librarians in Matale Educational Zone	40
Training Programme for Principals and Teacher Librarians in Kandy Educational Zone	40
Training Programme for Principals and Teacher Librarians in Katugastota Educational Zone	40
Training Programme for Principals and Teacher Librarians in N'Eliya Educational Zone	40
Training Programme for Principals and Teacher Librarians in N'Eliya Educational Zone	40
Training Programme for Principals and Teacher Librarians in Hatton Educational Zone	40
Training Programme for Principals and Teacher Librarians in Kothmale Educational Zone	40
Training Programme for Principals and Teacher Librarians in Gampola Educational Zone	40
Training Programme for Principals and Teacher Librarians in Walapane Educational Zone	40
Training Programme for Principals and Teacher Librarians in Walapane Educational Zone	40
Training Programme for Principals and Teacher Librarians in Naula Educational Zone	40
Training Programme for Principals and Teacher Librarians in Wilgamuwa Educational Zone	40
Training Programme for Principals and Teacher Librarians in Galewela Educational Zone	40
Training Programme for Principals and Teacher Librarians in Hanguranketha Educational Zone)	40
Training Programme for Principals and Teacher Librarians in Theldeniya Educational Zone	40
Training Programme for Principals and Teacher Librarians in Gampola/Kothmale Educational Zone	40

During the past decades, the concept of reading has undergone tremendous transformation, which extends from reading traditional printed matter to surfing the internet. NILIS has conducted a number of workshops to address this issue. Of these, the programs conducted in the Uva province for Science teachers, on reading printed matter and surfing the internet is exceptional.

It is a well-known fact that there are vast inequalities in the results of the G.C.E. (A.L.) examination in the different provinces. The Siyambalanduwa education zone in the Uva province is one with a very low achievement level at the GCE (A.L.) examination. According to a decision taken by NILIS, a 3-day workshop was held as an initial program in 2015, to improve the achievement of these students. The use of the "empowering 8" information literacy model in the teaching-learning process which centred around the library and learning resource center was demonstrated at the workshop . The principals of the schools in the Siyambalanduwa education zone (which had A/L classes), teachers teaching in the science, commerce and arts streams, and teacher librarians participated in this program, for which the resource personnel were the academic staff of NILIS. Following the workshop a special

training program on information literacy skills will be held for the new students entering the A/L classes in June 2015. It is hoped to assess the progress of the students after conducting the program for two months. Developing the Handbook for TL and trainers guide, conducting a five-day training programme for the 2800 TLs, Conducting over 15 short term and long term programmes were the key functions of NILIS.

PROBLEM STATEMENT

The Teacher Librarians or library staff in the school libraries need to be well trained to carry out the following tasks in the schools.

- Teaching information literacy skills
- Collaborative teaching (subject teacher, teacher librarian, computer science teacher and teacher in charge of audio-visual unit)
- Direct contribution to the Extended learning process (assignments, exercise, projects)
- Appreciation of culture and literature.
- School library management

But the teacher librarians who have been recruited since 2003 (around 4000) have relinquished their positions due to the lack of promotional schemes and recognition by the authorities. In 2016 the Director, School Library Development Unit, Ministry of Education informed verbally that there are only a few teacher librarians, less than 150, in the schools, and that the majority of libraries are looked after by the other staff or the teachers. While the NILIS was training teacher-librarians, the Ministry of Education failed to include a new cadre for teacher-librarians in the Teachers' Service minute, which governs teacher qualifications, promotions, service requirements, eligibility for leave etc, for all teachers in the country. Cabinet approval was received on 10.08.2009 to include the NILIS professional qualifications of the teacher librarians in the Teachers' Service minute. But so far the NILIS qualifications have not been incorporated into the Teachers' Service Minute, resulting in severe drawbacks in the newly introduced concept of teacher librarian. Consequently, the recruited teacher librarians changed their role to teachers, and unqualified library staff or part time teachers are looking after the libraries, which has resulted in the school libraries not playing a role in the teaching learning process within the school curriculum. NILIS was doing its level best with a lot of communication, meetings and advocacy programmes to rectify the scenario but still no solution has been reached.

DATA ANALYSIS

This study reveals the main factors which contributed towards the inadequate number of students who registered for the courses, which were the weak policies of the government regarding staff training and the school libraries in Sri Lanka. This study was carried out with the available written documents, communications, and face to face interviews, with the relevant parties of the Ministry of Education-School Library Development Unit (SLDU), NILIS academic staff members, and teacher librarians who received NILIS qualifications. The main reasons attributed by teacher librarians who passed out from NILIS, to giving up their positions were; less recognition in the school, unable to get promotions, no opportunities for the exam duties and paper marking, being responsible for any losses in the library, unlike teachers they have to wait longer hours in the school, no teaching periods are given to them, they are not given opportunities to practice what they learn at NILIS, and etc. The Ministry of Education too is not interested in the concept of teacher librarian, and they wish to run the library with the other clerical staff or teachers on a part time basis.

CONCLUSION

The main areas that were focused on in this study was why this valuable school library staff training project was unsuccessful, and how NILIS is struggling to improve the training of school library staff throughout the island in numerous ways, in spite of the red notice by the authorities to close down the Institute. Subsequently due to the best practice of NILIS it was possible to convince the officials of

the Ministry of Education regarding the importance of School libraries, and staff training, which resulted in the increase of the number of students from 26 in 2013, to 250 in 2016. In addition to that NILIS conducted a large number of short term training programmes for the school principals, teachers, and library staff, regarding the usage of the school libraries for the teaching learning process.

However, the mere knowledge of the teacher librarians is inadequate to effectively introduce and implement such concepts within the school library sector. To enable this endeavour to be a success all individuals in the education sector should be made aware of the concepts. Taking these factors into consideration, NILIS during the past decade, has conducted awareness raising programs regarding the concepts, at national, zonal, district, and area levels for principals, education officers, subject directors, instructors and subject teachers. Accordingly, it can be observed that the school library is being gradually integrated into the teaching-learning process within the school curriculum.

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School Library Research in the Real World—What Does it Really Take?

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ABSTRACT

School libraries are perceived to have a significant effect on student achievement. The reality is that evidence supporting the effects of school libraries on student achievement remains unconvincing to many serious researchers. In this paper, we provide a systematic review of 25 years of school library research examining student achievement. Results indicate that of over 260 studies, fewer than 27 approach the minimum requirements of research design. The unembellished truth is that most school library studies suffer from limitations of design, measurement, and analysis. To address such limitations, we built multiple statistical models based on six years of school-level data reflecting all public schools in New York State. We highlight key challenges of quantitative research: design, indicators, measurement and analysis approaches as they apply to ours and other school library research and share initial results from our study examining the causal relationships among school librarians, resources, activities and student achievement.

Keywords: School Libraries, Student Academic Achievement, Causality, Causal Studies, Research Design

INTRODUCTION

Since the late 1990s researchers have written that school libraries, if properly staffed and adequately resourced, have a positive impact on student achievement. By 2001 (Lance) researchers persuasively proclaimed that “the evidence” was “mounting!”. Lance reported that there were “about 75 studies on the impact of school library media programs on academic achievement” and that early studies had demonstrated “the value of the mere presence of a professionally trained and credentialed library media specialist” (Lance, 2001, p. 1). Although earlier Lance (2001) had cautioned that such correlations “beg the question of what the school librarians are doing that makes a difference” he explained that more recent studies had focused on school librarians as “creators and collaborators” and revealed that: “students perform better academically where the library media specialist:

- Is part of a planning and teaching team with the classroom.
- Teaches information literacy.
- Provides one-to-one tutoring for students in need” (p. 2).

Since then, more studies, based largely on correlation, assert that school libraries improve academic outcomes for children (Lance, Rodney, & Hamilton-Pennell, 2003), that “Powerful Libraries Make Powerful Learners” (Lance, Rodney, & Hamilton-Pennell, 2005), that students, teachers and administrators benefit from school libraries (Lance, Rodney, & Russell, 2007), and that investments in school libraries “pays off” in terms of student achievement (Lance & Schwarz, 2012).

When such studies have been criticized for attempting to establish a cause-and-effect relationship between characteristics of library media programs and achievement (Lance, 1994), Lance (2001) explains that “a stronger claim that correlations reflect cause-and-effect” had been established in the Alaska, Pennsylvania, and Colorado studies by including data on schools “i.e., per pupil spending, teacher-pupil ratio, various teacher characteristics” and their communities “i.e., poverty levels, racial/ethnic demography, adult educational attainment” and that the additional variables addressed “most, if not all, of the stronger arguments that could otherwise be made to discount the consistent

findings of this line of research” (p. 5). However, as anyone who has ever taken a course in statistics will confirm, correlation does not equal causation. There is no additive value whereby multiple correlations equal causation.

To date there have been 21 state-level studies that “confirm that school libraries support student achievement” (see infographic at http://www.ala.org/aasl/sites/ala.org.aasl/files/content/aaslissues/advocacy/AASL_infographic.pdf). The unquestioning acceptance of these “state studies” – none of which has been peer reviewed (although summaries of the findings have been reported in peer reviewed journals)—has shaped the way the school library profession perceives school libraries as well as the methodological design of subsequent school library research. It is argued that these studies provide, in the aggregate, strong, congruent evidence of the efficacy of school libraries in effecting student learning. However, as we reveal in this paper, this body of work, frequently referenced to argue that school librarians and school libraries are critical to student learning, is not as persuasive as its advocates believe. The field seems to be in a perpetual state of confirmation bias, with practitioners continuing to interpret all prior work as evidence that libraries unquestionably impact student achievement. As these authors have detailed in earlier work (Stefl-Mabry, Radlick, Armbruster, & Keller, 2016) the majority of school library studies over the past few decades have not even been based on data.

If school library research is to advance an agenda of rigorous empirical scrutiny, then an honest evaluation of the quality of school library research that has been conducted so far is necessary. Unlike other areas of research where multiple studies have been successfully replicated results across many circumstances, the research focused on the linkage between school libraries and student achievement suffers from multiple problems and inconsistencies that result in weak evidence, at best, supporting school library effects on achievement. The purpose of this paper is to:

1. Provide a topological and methodological review of school libraries and student achievement research from 1990-2017.
2. Review key challenges of quantitative research: research design, indicators and measurement, and analysis approaches.
3. Recommend alternatives to address weaknesses in school library research design and analysis and specify a better understanding of the necessary conditions for causal inference in a quantitative study.
4. Highlight initial results from our three year 2015-18 study (IMLS Grant RE-04-15-0081-15) which examines the causal relationships between school librarians, school library resources, school library activities and student achievement in public school libraries throughout New York State.

SCHOOL LIBRARY AND STUDENT ACHIEVEMENT RESEARCH 1990 THROUGH 2017

In 2016 we began a retrospective search to locate published reports of research in the field of school libraries and student achievement spanning a twenty-five-year period (1990-2015) for an American Educational Research Association conference paper: *Breaking down Information silos: Sharing decades of school library research with educational researchers* (Steffl-Mabry et al., 2016). The results of that study made us aware of the methodological weaknesses endemic to the field of school library research. As both authors participated in the two Causality: School Libraries and Student Success summits, we were also aware that the American Association of School Librarians (AASL) was seeking to articulate "...a national research agenda to investigate causal phenomena in school library instruction, resources, and services" (2014, p. 4).

Comparable to our 2016 findings, Morris & Cahill (2017) recently reported that research methods utilized in school library research "use less higher-level statistical analysis than methods used in other fields of study in education" (p.17). Although Morris & Cahill focused their analysis on articles written in two research journals, both of which deal exclusively with school libraries: *School Library Research* and *School Libraries Worldwide*, they found no evidence of "experimental or quasi-experimental designs" in their analysis of articles published from 2007 –July 2015 in either publication. Although Morris & Cahill's findings confirm ours, we remained puzzled by the multitude of voices from within the school library research community that proclaimed that "school libraries work" (Scholastic Research & Results, 2008), that "increasing numbers of investigations and improved methodology" bring "new credence and immediacy to this positive relationship" (Barrett, 2010, p. p. 136). and that "a wealth of research, or "big data" substantiates school libraries' impact on students' reading and writing" (Subramaniam, 2015, p. 17). These two conflicting and distinct narratives provided the impetus for us to conduct an intensive topical and methodological analysis of school library research and student achievement. Unlike Morris & Cahill (2017), who limited their search to two journals or Clyde (2004) who limited her review to library and information science publications, we extended our inquiry to include all fields and disciplines related to education and learning. Our goal was to provide an analysis of school library research to identify the:

- number of articles that have been published in peer reviewed scholarly journals focused on school library and student achievement.
- types of publications in which research involving school library and student achievement research are reported.
- range of topics that are targeted in school library and student achievement research.
- types of interventions that are examined in school library and student achievement research.
- methodological approaches that are used in school library and student achievement research studies.

METHODOLOGY

The literature review protocol for this study was based on the *What Works Clearinghouse Procedures and Standards Handbook*, Version 3.0 (What Works Clearinghouse, n.d.). Only research studies containing a "primary analysis of the effect of an intervention" were included in the first phase of the literature review rather than research theses or unpublished reports (p.7). Like Clyde (2004) we followed the belief that the main indexing and abstracting services in library and information science and education provide better coverage of published articles and papers, and that "the publication of findings is an important part of any research project" (p. 182).

Data Sources

The search was conducted in April 24, 2017 using the University at Albany's EBSCO interface. Scholarly research papers and conference papers published in English, were identified through a number of strategies. Online searches were undertaken of *Academic Search Complete*, *Education Source*,

Educational Administration Abstracts, ERIC and Library, Information Science & Technology Abstracts with Full Text. The search terms used for the database search are presented in Table 1 below:

Table 17: Search Terms Used for Database Search

“school libraries” OR “school librarians” OR “student achievement” OR “student academic achievement” OR “academic performance” OR “academic success” OR “scholastic achievement” OR “learning” OR “tests” OR “measures”	AND	“evidence” OR “empirical” OR “proof” OR “causal” OR “causality” OR “causation”	AND	Scholarly (Peer Reviewed Journals)
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Internet searches using public search engines also proved useful in phase two, to help us find research reports that had been cited in many of the peer-reviewed publications. There were instances, however, where the original report could not be located because the cited links were broken.

Search Results

Using the search terms listed in Table 1, a total of 230 scholarly research articles (published in English) were found. A breakdown of articles by journal discipline revealed that 85% (195) were published in library and information science journals and 14% (32) were published in educational journals. Only 1% (3) were published in journals other than library and information science or education, see Table 2 below.

Table 18: Publication by Discipline

Peer Review Journals	Number	Percent
LIS Publications	195	85%
Education Publications	32	14%
Other	3	1%
Total	230	100%

Topical Analysis of School Library and Student Achievement Research

To determine the focus area that had been investigated in each research article a topical analysis of the 230-peer reviewed publications was conducted. An adapted version of consensual qualitative research methodology (CQR) was used to examine the major topics represented (Anderson, Leahy, DelValle, Sherman, & Tansey, 2014; Hill, 2012; Hill et al., 2005). Codes were used to assign meaning to the descriptive and/or inferential information compiled by reading through each article multiple times (Miles & Huberman, 1994). Content analysis was performed to identify core concepts and consider the frequency with which they occurred. Codes were defined in terms of the focus of research of each publication.

Fifteen themes were identified as being central to the articles. Table 3 presents the topical areas of each of the 230 scholarly articles. Some articles covered multiple themes, thus total number of codes exceed the number of articles reviewed. See Table 3 below.

Table 19: Topic Areas Identified in School Library/Librarian Research and Student Achievement (230 publications)

Code	Code Count	Percentage
Advocacy	30	8%
Assessment/Evaluation	19	5%
Attitudes/Disposition	19	5%
Collaboration	40	10%
Curriculum/Instruction	58	15%

District Administration/Leadership	23	6%
Evidence Based Practice	13	3%
Library Programming	40	10%
Professional Development	6	2%
Professional Practice	29	7%
Research on Student Academic Achievement	33	8%
Research Summaries	34	9%
Resource Recommendations	18	5%
STEM/Science/Engineering/Math	7	2%
Technology	24	6%
Total Number of Code Counts*	393	100%

As Table 3 illustrates, 15% of the publications focus on curriculum and instruction and collaboration and professional development were the focus of 10% of the articles. Summaries of prior research were represented in 9% of the articles. Advocacy was the focus of 8% of the articles, and district administration/leadership and technology were the focus of 6% of the publications. Assessment, evaluation, attitudes and dispositions were the focus of 5% of the publications. Evidence based practice was the focus of 3% of the articles and STEM (Science, Technology and Engineering and Math) was the focus of 2% of the peer reviewed publications. Only 5% of the articles focused on school libraries and actual research measures of student achievement.

Final Selection of School Libraries and Student Achievement Research Publications

A structured matrix template was created by the authors to identify the major dimensions of each study to identify those studies which met the criteria for final selection. Only scholarly articles focused on PreK-12 education, containing a primary analysis of school library and student achievement data were included in the final selection. Matrix categories also included: purpose (study focus), population, methodology, data collection, research design, statistical analysis and results. The authors read through each paper and posted relevant information about the publication to a shared Excel file, consulting with each other if there were questions or issues concerning categorization. The matrix was refined as the publications were reviewed to ensure that information captured was relevant and accurate. The final categories used to review the publications are presented in Table 4. (A link to the final matrix can be provided by contacting the authors.)

Table 20: Matrix Categories

Matrix Categories
Year Published
Source
Author(s)
Level (National, State, Region, District)
Title of Study/Report
Years of Data Used
Purpose

Target and Unit of Analysis (District, School, Grade, Class or Student)
Population or Sample (Sampling Approach)
Group Characteristics (How Representative the Respondent(s)? Sample? Response Rate?)
Number of Cases
Contextual Factors Considered (Poverty, Demographics, etc.)
Data Collection Methodologies (Survey, Perceptual, Observation Data Systems)
Measures/Indicators Used
Design (Descriptive, Correlational, Causal, Experimental, Longitudinal, Meta-analysis)
Statistical Analysis Methodologies
Multiple Regression
ANCOVA
Effect Size
Causal Modeling
SEM (Structural Equation Modeling)
Path (Analysis/Coefficient)
Effects Found
APA Citation
Library & Information Science Publication
Education Publication
Peer Reviewed
Report
Dissertation

Rationale for Including Non-Scholarly Publications

As we discovered in our 2016 study although summaries of findings from state impact studies had been published in scholarly journals, the actual collection methods and explanation of how the data had been analyzed could only be found in the original unpublished reports (Stefl-Mabry et al., 2016). Thus, once again, we decided to include unpublished school library and achievement research reports, one widely cited dissertation and one book in the final collection totaling 266 publications, see Table 5 below.

Types of Publications

As Table 5 reveals, the vast majority of articles (73%) were published in library and information science journals. Only 12% of the articles were published in educational journals. Non-published reports made up 13% of the publications.

Table 21: Type and Total Number of Publications

Journal Type	Number	Percentage
Library & Information Science	195	73%

Educational Journals	32	12%
Other Journals	3	1%
Reports	34	13%
Book	1	0%
Dissertation	1	0%
Total	266	100%

Number of Publications in Library and Information Science Journals

A more detailed look at the number of articles published within library and information science journals reveals that 56% of the publications were published in practitioner-based journals. As Table 6 illustrates, 31% of publications were published in *Knowledge Quest* and 25% were published in *Teacher Librarian*. Both journals are designed primarily for school library practitioners. *School Library Research* (ISSN: 2165-1019), the scholarly refereed research journal of the American Association of School Librarians (AASL) and the successor to *School Library Media Research* (ISSN: 1523-4320) have published only 10% of school library and student achievement research papers. *School Libraries Worldwide*, the official professional peer-reviewed (refereed) research journal of the International Association of School Librarianship (IASL), contains only 9% of school library and student achievement research articles. Combined, these three “research” journals contain 19% of papers focused on school libraries and student achievement research.

Table 22: Library and Information Science Journals

Library & Information Science Journals	Number	Percentage
ACCESS [library source]	4	2%
Advances in Librarianship	1	1%
Annual Review of Information Science and Technology (ARIST)	1	1%
CILIP [Chartered Institute of Library & Information Professionals]	1	1%
Current Studies in Librarianship	1	1%
Emergency Librarian	3	2%
Evidence Based Library & Information Practice	4	2%
IFLA Journal	1	1%
Information Research	2	1%
Information Studies	1	1%
Investigación Bibliotecológica	1	1%
Journal of Academic Librarianship	1	1%
Journal of Access Services	1	1%
Journal of Education for Library & Information Science	2	1%
Journal of Librarianship & Information Science	1	1%
Journal of Librarianship & Information Services in Distance Education	1	1%
Journal of Library Administration	1	1%
Journal of the American Society for Information Science & Technology	1	1%
Knowledge Quest	60	31%
Library & Information Science Research	4	2%
Library & Information Update	2	1%

Library Issues	1	1%
Library Management	1	1%
Library Philosophy & Practice	2	1%
Library Quarterly	2	1%
Medium [Washington Library Media Association]	2	1%
New Library World	4	2%
Reference Librarian	1	1%
School Libraries in Canada	1	1%
School Libraries Worldwide	18	9%
School Library Media Research	15	8%
School Library Research	3	2%
Science & Technology Libraries	1	1%
Teacher Librarian	49	25%
Young Adult Library Services	1	1%
Total	195	100%

Number of Publications in Educational Journals

Published work related to school libraries and student achievement research is sparsely disseminated in educational research journals as is evident in Table 8 below.

Table 23: Education Journals

Education Journals	Number
AERA Conference Proceedings [American Educational Research Association]	3
AERA Open	1
Assessment in Education: Principles, Policy and Practice	1
Australian Journal of Education	2
California English	2
CATESOL Journal	1
Clearing House	1
De La Salle Lipa Integrated School Research Journal	1
Economics of Education Review	1
Education	1
Educational and Psychology Measurement	1
Educational Research Quarterly	1
Interactive Learning Environments	1
International Journal of Learning	1
International Schools Journal	1
Journal of Education and Practice	1
Journal of Information Technology Education	1
Language and Literacy Spectrum	1

Multicultural Review	1
New England Reading Association Journal	1
Radical Pedagogy	1
Reading Improvement	1
Research for Educational Reform	1
Research on Educational Technology	1
Review of Educational Research	1
Teaching Exceptional Children	1
TechTrends: Linking Research & Practice to Improve Learning	1
Zeitschrift für Pädagogik;	1
Total	32

Publications in Other Journals

A very small number of articles related to school libraries and student achievement were published in journals representing disciplines other than library and information science and education, see Table 8 below.

Table 24: Journals other than Library and Information Science and Education

Other Publications	Number
IFE PsychologIA	1
Journal of Economic Behavior & Organization	1
Social Science Research	1
Total	3

METHODOLOGICAL ANALYSIS OF SCHOOL LIBRARY AND STUDENT ACHIEVEMENT RESEARCH

Rationale for Inclusion in Methodological Analysis

Studies met the inclusion criteria for methodological analysis if they were focused on PreK-12, peer reviewed or report, focused on school libraries/librarians, and examined achievement. The study also had to have actual data reflecting school library and student achievement variables that were measured or observed, and the study had to be the primary analysis of the data (not a compilation of studies, a summary or meta-analysis).

While many of the 266 publications included student achievement and/or student academic performance as key terms in its descriptor, studies were excluded from the review if the research:

- was contextualized in public or academic libraries or a higher education setting
- was a review or summation of prior research
- described examples of best practice (e.g., collaboration, programming, leadership, curriculum and/or instruction) with no empirical data
- described professional development initiatives
- was written in a language other than English.

Analysis of the 266 publications revealed that 30% (80) of the publications focused on school libraries (PreK-12) and its effect on student achievement while 70% (186) did not. Of the final list of 80 papers (44 scholarly peer reviewed publications 34 reports, one dissertation and one book), 55% were published in peer reviewed publications and 44% were not (see Table 9 below). Thirty-two (40%) of the papers were published in library and information science journals, 9 (11%) were published in educational

journals, and 3 were published in journals in disciplines other than library and information science and education, see Table 9.

Table 25: Papers Selected for Methodological Review

Publication Type	Number	Percentage
Library and Information Science Journal	32	40%
Educational Journal	9	11%
Report	34	43%
Dissertation	1	1%
Other Journals	3	4%
Book	1	1%
Total	80	100%

Methodological Analysis

Of the 80 studies, only 24 studies reflected a quasi-experimental research design and 3 used an experimental design with random assignment (RCT) in which attempts were made to assure comparability between experimental and control groups. These 24 studies used designs supported by techniques such as ANCOVA (n=3) or some form of regression (n=21). In addition, two of the studies that used regression also used structural equation modeling (path modeling). It is important to note that two of the RCT studies suffer from significant potential challenges to external validity due to subject assignment process and the small numbers of cases (in one study a total of 28 experimental and 26 control students) and in the other intact class groups from 14 experimental schools (n=272) and 10 control schools (n=411). Both studies did use individual student data, as did the third RCT study (Borkum, He, & Linden, 2012) that had a much larger sample with 191 treatment schools and 195 control schools, with a total study size of over 20,000 students. In contrast with the three RCT studies, among the quasi-experimental design studies, all three ANCOVA studies were at the state level, and 20 of the regression studies reflected large, state-level, or national populations, with attempts to control for student economic disadvantage and in some cases other variables. All of the quasi-experimental design studies were focused at the school, rather than the individual-student level.

Weaknesses of Prior Research

Examining the body of research focused on school libraries and student achievement as reflected in the 80 studies/reports, we identified the following specific weaknesses.

Lack of an Underlying Theory of Action

First, we could find no clearly articulated underlying theory of action focusing on school library effects on student achievement within a school. Researchers assume that there is a connection underlying any school library effect. However, the critical question left unanswered in the multitude of school library impact studies is “what is the theory of action for actual intervention of the school library and school librarian that is influencing student achievement?” Is it what the school library has (e.g. library resources such as the size of the collection, or type of resources such as books, eBooks, Chrome books, or other computers)? Is it what the school librarian does or does not do (e.g. teaching critical thinking skills, inquiry-based learning or information literacy)? Is it how the library program is organized or scheduled (fixed, flexed or mixed scheduling)? Or, is it how the school librarian works (e.g. providing leadership or collaborating across disciplines and grade levels with other teachers)?

Theoretical Ambiguity

Another unanswered question is how do these many different variables work together to effect student achievement? What is the underlying theory? Many studies assume that a school library that is well-resourced will help students to learn more, and this will result in students’ higher performance on tests. But what types of resources equate to “well-resourced”? Is just having a school librarian enough?

Will a teacher, placed in the position as a school librarian (a common occurrence in many schools) do just as well as a certified school librarian? We know that school librarians deal with reading and that reading has some relationship to learning. But does having twice as many books (or other resources) lead to twice as much learning? Do higher skilled school librarians have more of an effect on student achievement (as in Nationally Board Certified school librarians, and/or school librarians with multiple degrees beyond their certification area)? Do school librarians who remain working in the same school for a longer period of time result in students with higher achievement, and if so, why? Because of this theoretical ambiguity, many school library studies tend to concentrate on inventorying all possible library related resources and activity factors and then try to relate each of those factors to student achievement without any clear theoretical basis for their priority, inclusion or interplay.

The questions listed above, that arise within the context of practice, indicate the current knowledge deficit within the field of school library research and should serve as the basis for future investigations. Haynes suggests that it is important to identify “where the boundary between current knowledge and ignorance lies” (2006, p. 882). Farrugia et al. (2010) suggest the challenge is to develop appropriate research questions to determine “which uncertainties could or should be studied and also rationalizing the need for their investigation” (p. 278). This gap between research and practice has been noted as problematic in other educational disciplines as well, e.g., special education (Cook et al., 2015).

A Field Drowning in Descriptive Data

Second, many of the school library impact studies were exclusively surveys or inventories, and were, therefore, just the assemblage of purely descriptive data of what libraries have or correlational lists of library variables and student achievement. As noted earlier there was a small subset of 27 studies that reflected either a quasi-experimental or an experimental research design. That is, there was no attempt to examine the results of a treatment group relative to a similar control or comparison group in the majority of this research or to try to control for alternative explanations of effects. As noted above, there were only three randomized control trials (RCTs) across all the research studies, and only 24 that used quasi-experimental designs with the use of covariates to account for alternative factors that could influence the outcome. Discounting the three RCT studies using experimental data, of all the 77 other studies with data (of which 44 were in a peer-reviewed publication) reflected the use of observational data. In addition, all of the studies save for a recent study by the authors (Radlick & Stefl-Mabry, 2015) examined a single point in time, rather than using longitudinal data. That means that none of the studies except for one exception, actually examined change in student achievement. All of the studies were a single snapshot at one point in time without controlling for prior achievement. Research designs also reflected a struggle with the size and nature of the samples used in analysis of treatment and control conditions, with many of the studies other than the quasi-experimental design studies, using either small numbers of schools, and/or potentially very unrepresentative samples due to selection bias due to differential responses from subjects. Finally, none of the studies used research designs that addressed the hierarchical, multilevel nature of schools, with classrooms within school which are in turn, within districts and regions.

Unit of Analysis: The Multifaceted Role of a School Librarian

A persistent issue that was almost never discussed was explaining the nature of the school librarian’s work relative to students, classrooms, and schools and how a school librarian’s effect operated across an entire school building. This unit-of-analysis challenge (focusing on school buildings) compounds this problem because the school librarian operates at the school level, so by examining the effect of a single librarian across a single class or a group of classes provides little explanatory power while at the same time requiring a large number of schools to conduct any reasonable analysis. Most of the state-level designs examined the effects of a single school librarian on the school itself, since that is the level at which school librarians typically are allocated and operate. A few studies looked at much smaller groups of students (classroom or grade level) within the school who might be affected by a single school librarian’s interventions. However, designs that examined smaller groups of students within the school building concentrated on very specific programmatic activities or strategies of the school librarian, while building-level designs used a much wider range of school library/librarian resource and activity

variables. The problem of small sample sizes in some studies, providing low statistical power to identify program effects, is a major issue in many of the studies.

General Measurement Challenges

Third, the majority of school library studies suffer from general measurement challenges. Many of the variables, including both school library-related and in a few studies, even student outcomes, reflected solely perceptual measures gathered via questionnaires. Some studies did use formal quantitative survey results of school library resources and activities. As noted above, designs were predominantly non-experimental, so data were at best observational. Even when more formal outcome measures (tests) were used for measuring student achievement, the problem associated with measuring student achievement, including reliability and validity of these various standardized tests, was not discussed. Given a typical school-level analysis, it is critical that assessments are common across large numbers of schools such as in statewide assessments or national standardized assessments in order to assure large enough samples for analysis. With statewide assessments, we have a common proxy measurement of each school's effectiveness that has been generally accepted, albeit with increasing reservations, in the educational community. By using standardized assessments educators are faced with a significant challenge in matching the results of general, once-a-year, high-stakes tests with specific interventions such as school library resources. What is the linkage between a school's curriculum, specific curricular-focused interventions by the school librarian, and a standardized reading assessment? Finally, in some states such as New York, there are high numbers of students opting out of the statewide assessments, and their opting out potentially may reflect disproportional numbers of certain types of students (i.e. high performers or low performers), and thereby make the assessment results less representative of the entire population. In addition, given the unit of analysis problem raised above, we have to address how we are going to represent the assessment results of an entire school building in a single score, especially if the assessment measure is not vertically scaled across grades. Conversely there is the problem of what we use if standardized tests are discounted. How can we argue for a reliable and valid measure of achievement across schools if the measure is some sort of locally developed instrument without any clear psychometric data supporting its reliability or validity?

Problematic Statistical Analysis

Fourth, most of the school library studies suffer from significant statistical analysis problems. In large measure driven by the research designs, most studies used simple descriptive statistics to simply highlight what was taking place in libraries, or used univariate correlational analysis to provide evidence of how the long list of school library variables were related to (positively correlated with) student achievement. Differences in the mean values of variables were generally compared using either multiple t-tests or ANOVA. Only 24 of the total studies used some methodology such as multiple regression to control for covariates that could also explain effects on student achievement. Most of these focused on student economic disadvantage as the primary covariate. As noted above, only the authors' work (Radlick & Stefl-Mabry, 2015) controlled for prior year achievement, along with a number of other variables. The use of hierarchical linear modeling, propensity score matching and other techniques have not been used in the school library research literature, although, as will be discussed below, the authors have modeled student achievement using these techniques. In addition, as Gelman (2016) has written about extensively, too much research suffers from a focus on null hypothesis statistical testing (NHST) that falls into what he calls the garden of forking paths or p-hacking problem—essentially “fishing expeditions” focusing solely on finding statistical significance (p.1). This generally suffers from the problem of interpreting a p value as the size of an effect, rather than focusing on more appropriate effect size measures of program impact within the context of general “noise or uncertainty.” In addition, if we examine many of the school library reports and studies of the effects of school libraries on student achievement, we will see hundreds of statistical tests of statistical significance in each individual study, without any adjustments for multiple comparisons. This fundamental statistical error invalidates many, if not most of the positive results published in the school library literature. This is true because the lack of statistical adjustment for the number of tests increases the significance level required, thereby decreasing the number of significant results that would be found to be statistically significant if adjusted. As Gelman explains, most studies

also suffer from high researcher degrees of freedom, allowing the researcher wide discretion in the selection of different measures and calculations that can easily influence results toward what would be considered a positive outcome by the researcher. By running hundreds of statistical tests until a significant effect is found, and by coupling those tests with a highly selective use of the specific measures that can reflect positively relative to the outcome desired, positive results can be generated, albeit at the expense of a more balanced and realistic view of the effects of school library. Additionally, there were only a few of the regression studies that reported actual effect sizes or variance attributed to school library factors in their models making it difficult to discern the full nature of the analyses, or the specific contribution of the school library variables.

Lack of Replication Studies

Fifth, none of the studies except for the authors' (discussed below) fully replicate studies across multiple outcome measures, multiple populations, or multiple years. Each study is a one-off event. However replication is the essence of good research science, and the commonly cited replication crisis in science reflects the reproducibility problem that exists with so much research, not only in school libraries but across disciplines of education (Makel et al., 2016), psychology (Gilbert, King, Pettigrew, & Wilson, 2016; Solomon, 2016) and even biological sciences (Lewis, Breeze, Charlesworth, Maclaren, & Cooper, 2016; Open Science, 2015; Peng, 2015). However, replication helps to ensure that positive findings from an individual study are reproducible are not merely the result of error, bias, or chance (Cook et al., 2015; Makel et al., 2016).

Hidden Issue of Researcher Bias

Sixth, the issue of research advocacy in support of school librarians has been a hidden issue for decades. It is worth noting, that despite hundreds of studies examining the effect of school libraries on student achievement over the past twenty-five years, not one study has ever challenged or neutralized the notion that school libraries positively impact student achievement. Almost all research related to the effects of school libraries and librarians on student achievement has been conducted by individuals who were intent on justifying claims of school library effects and who publish these results in school library specific publications. In most cases, they were not researchers but school library or library practitioners. In many cases the need to establish an evidentiary basis to support and preserve school librarian funding has been goal of researchers when they initiated the research. As discussed above, there are multiple analytic methodologies, with many inherent weaknesses, that were used to accomplish school library advocacy, however unintended. This is not to say that this research was necessary all bad, but that its often-unarticulated intent was to identify weak results that were positive, and therefore could be used to advocate for school library positions, more staffing and more resources. In fact, the majority of research, as we have shown here and in prior research (Stefl-Mabry, et al, 2016), has been published in journals and other publications associated with the school library field. This means that results that were either not significant, or counter to the predominate positive message of the school library effect on student achievement probably were never published since advocacy publications typically focus exclusively on positive results to support the effective role of the school librarian. This publication bias means that counter instances of researchers reflecting either no impact or negative impact never reach the light of publication. Of course, this leaves practitioners with the misperception that there is strong evidence supporting the role of the school librarian when, in fact, it has been selectively focused on only positive results. "Low-power research designs combined with publication bias favoring positive results together produce a literature with upwardly biased effect sizes" (Open Science Collaboration, 2015, p. 5).

The Difficulty of Conducting Causal Research

Seventh, despite a newfound interest in identifying causal linkages between school libraries and student achievement, as reflected in the Causality: School Libraries and Student Success II (American Association of School Librarians, 2014) initiative by the American Association of School Libraries, proving causal relationships is extremely difficult (American Association of School Librarians, 2014). Over the past decades, there has been extensive debate both within and across disciplines, all struggling to show causality using a wide range of different methodologies. Some researchers argue that observational

data can never show causal relations, and suggest that researchers use experimental data from randomized control trials (RCTs) to assure that both an experimental and a control group are comparable. Others argue that quasi-experimental design studies can demonstrate equivalence between the intervention group and the control. More complex analytic techniques such as structural equation modeling (SEM) provide a way to model and test complex relationships and causal theories going beyond more regression techniques. In addition, quasi-experimental design statistical techniques such as regression discontinuity, propensity score matching, instrumental variables or two staged least squares regression can also provide alternative techniques to demonstrate causal explanations outside of a RCT. Well-designed and well implemented RCTs do allow researchers to better address some of the key challenges such as the hidden or omitted variable problem (which underlies the adage that correlation does not mean causation) which is a serious problem in a non-RCT study. A control group established via random assignment offers a strong counterfactual to show what would take place with the treatment group if there had been no treatment. However, RCTs can often suffer from external validity challenges as noted above due to small sizes required to do practical research. Also, RCTs, without a strong base of theory, do not necessarily address the timing problem (what happens before something and what happens after something, the representative sample size problem (that is assuring a large, representative sample for a study to assure statistical power), the problem of missing data, and finally the problem of measurement error. Pogrow (2017) has detailed the weaknesses inherent in using an RCT-focus such as that by the What Works Clearinghouse. As he illustrates, emphasizing effect size still does not necessarily provide a clear identification of an effective practice. Key to any successful causal or predictive model is how successfully it can be replicated in subsequent populations and datasets with the same results. No single study can provide the certainty that allows us to say that one variable causes another because the possibilities for problems and errors are manifold.

OUR RESEARCH

We embarked on our three-year IMLS research grant (2015-18) with great excitement that we could push the boundaries of school library research on the effects of school librarians on student achievement. Educational researchers are focused on designing studies and measuring changes in students, as well as changes in education practices at the individual student, classroom and school levels. As seasoned educational researchers, we came to this project with our broad experience in research, program assessment and program evaluation. We set out a multi-layered approach, starting with a comprehensive review of all the research literature linking school libraries with student achievement, as well as an analysis and statistical modeling approach using a large-scale, state-level data set reflecting all schools in New York State. We were not prepared for what we found. As discussed in the prior sections of this paper, the state-of-the art relative to school library impact studies leaves much to be desired, with only 24 studies out of nearly 300 actually attempting to address demographic or other factors that would result in non-comparable schools with libraries and those without school libraries. In addition, the body of research suffers, as noted from many significant weaknesses in design and analysis.

Although we would have liked to have undertaken an experimental design with randomization as a part of our IMLS research, we struggled with how to implement a RCT within the context of New York State Schools that would allow us to answer the question of whether school libraries/librarians increase student achievement. The challenges of an RCT design included the question of whether we should focus on a very small number of school libraries and try to examine the results of some library intervention relative to the performance of a group of students in the school, as compared with students in the school who did not get the intervention. To do this we would need agreement from the principal, teachers, librarian, parents and students to randomly select students for the intervention, assuming that the intervention could be implemented within the normal flow of students into and out of the library. Key to this experimentation would be the inequitable distribution of interventions that would be inherent in random assignment. In addition, we would need to obtain achievement and other data for individual students in order to complete the analyses. The number of students and number of schools involved in this kind of design would limit the statistical power that would allow us to discern effects, as well as raise

questions of external validity/generalizability. Alternatively, we could think about implementing the intervention in a group of randomly selected schools and compare the results with schools that did not receive the intervention. This approach would essentially require randomization at the school level rather than the student level, requiring more schools to reach an acceptable number of cases, and making comparability across different school characteristics more difficult because of the heterogeneity of schools relative to demographics, prior achievement and other characteristics. These are significant challenges without easy answers. We also struggled with identifying a specific intervention that would exemplify what we were studying. As noted earlier, there is a paucity of theory underlying school librarian/library activities.

We opted for a two-pronged strategy that did not include an RCT design. The first prong was the analysis of the extensive data trove that the New York State Education Department formally requires each year from every school (including demographic data, school library and student achievement data). Because one of us was formerly the Director of Planning, Evaluation and Technology for the Education Department, and had responsibility for the data systems (Radlick), we felt that we could make maximum use of this rich data set. At the present time, we have analyzed five years of data for the entire state, all public schools, and are working on the sixth and most current year (2016-17). Few researchers have this tremendous array of data, and no school library researchers that we are aware of has a similar multi-year range and assortment of data on schools and school libraries. We also had the ability and experience to apply the full range of statistical modeling techniques to this data, starting with an econometric, production-function modeling perspective. Our second prong strategy was to conduct statewide web surveys followed up with targeted analyses, as well as in-depth interviewing. This survey data, in conjunction with the larger set of school data that could be matched to the individual respondents, allowed much more extensive probing of results.

We are in the second year of our research grant and have much more to do. However, our strategy has allowed us to do some things, to date, that we believe no other school library researchers have done. These firsts include:

- Examining five years of data and statistically modeling the influence of school libraries and librarians along with a wide range of other student demographics, school climate, student behavior and other variables in complex structural equation models (SEM).
- Applying a type of value added modeling by controlling for prior year achievement in models in addition to other variables as note in the prior point.
- By using the five years of data (data for the sixth school year, 2016-17, is not yet complete so full models cannot be run for these data) across two different sets of achievement outcome measures (English language arts and math) for two different grade level groups (elementary/middle school students and high school), across two different populations of schools (one all New York City schools and the other all the rest of schools across the state), provides 40 different large-scale replications to test models.
- With the data we have, we can create a variable reflecting the number of years that a particular school has a school librarian across the five years of data we presently have from 2011-12 to 2015-16. This variable has been used in modeling effects to address the question of whether the more years there is a school librarian capability in a building the more positive the effect is on student achievement.
- We have used both traditional hierarchical linear modeling, and multi-level SEM to address district level effects that have not been modeled in prior research.
- We have also use the data to examine achievement between schools with school librarians and schools without school librarians using propensity score matching.
- We have included district-level opt-out percentages into our HLM models along with other district-level economic data, to try to adjust for the differential effects of students in some buildings opting out of the state assessments.

Results of the first year from the structural equation models, which controlled for many other variables, revealed that school librarians were shown to have a statistically significant impact on student achievement in English Language Arts (both the 2012-2013 ELA Performance Index and the Change in ELA Performance Index from 2011-2012 to 2012-2013). While the school librarian effect on school ELA academic performance was statistically significant, the effect size was relatively small and, not unexpectedly, explained a relatively small part of the variance in total academic achievement (1% of variance explained) as compared with some of the other variables in the models. The path coefficients from the SEM models showed that there were other factors that have a much greater impact on the outcome measures in both ELA and math, such as prior academic performance and poverty, which had the highest effects in the model.

However, despite replicating similar SEM models for years 2013-2014 and 2014-2015 those first results have not been duplicated. In fact, at this point in time we have found little evidence for a school library or school librarian effect. As noted, we have the possibility for multiple replications across grade level groups, subject areas and populations. We would expect that any effect would be consistent, otherwise, there is a high likelihood that a positive result is just a random event. A single positive result does not mean that there is a story there to be told.

Possible Next Steps

We continue our probing both across the large data sets, as well as across the survey data in conjunction with the large data set which can be matched based on school identifiers. Based on our initial research we know that each of the five-school year set of school library data (which is comprised of 45 variables reflecting staffing, operation, print and electronic resources, collaboration and professional development) can account for a maximum of 16% of the variance in student achievement in the building. This means in models with all 45 school library variables, but that have no other covariates, the adjusted R^2 (explained variance) is 16%. But as we know this variance is shared with a number of other things and when those other variables are entered into the model (variables like prior year achievement in that subject area/grade level, demographics, economic disadvantage etc.) the percentage of variance accounted for by school library variables decreases typically to less than 2% and in some cases, it moves to essentially zero. In most cases, this school library contribution is also not statistically significant. We will continue to run different models to attempt to identify significant effects, including exploring subsets of data that reflect only the respondents from the web survey. It is interesting that the handful of the 27 quasi-experimental design studies that did actually report the percentage of variance in their models explained by school librarian/libraries after controlling for admittedly a differing and much smaller set of socioeconomic variables ranged from 21% in a 1994 study (Colorado, 1994), to 2.5% in the Iowa state study (2002) with New Mexico (2002) at 7.9% and Missouri at 11%. One of the more rigorous studies, Wisconsin by Smith (2006) showed a range of 3.2% to 3.4% of the variance explained by school library variables after controlling for other covariates. How do we interpret this? Is the influence of school libraries/librarians lessening over the years? Some evidence for this is reflected in our own results where we have seen a few positive school library effects in the models for the early years (2012-13) (as described above) but not in later years. Are our models allowing us to more appropriately control for variables that influence student achievement? Since we are applying the same models (same variables) in each year, it would not seem to be that this is the case. But we are still looking.

We are also starting to build models with latent variables reflecting key school and library characteristics so that we can use these latent variables in our structural equation models to try to better identify causal effects. The web survey results, while reflecting only a subset of the larger statewide data set, may allow us a representative subset of schools to build models that can help to identify not only resources but actual activities in the library that may be having an effect on student achievement.

Also, because we have been focusing on modeling the mean achievement level using the statistical analysis techniques to date (e.g. multiple regression and maximum likelihood estimators), we may be missing differential effects of school libraries for higher and lower performing schools. Therefore, we will also be using quantile regression models to model the lower quantile results (5th, 10th and 25th percentile) and the higher quantile results (75th, 90th and 95th percentile). The possibility of using a more

longitudinal panel design is also being explored. In short, we are trying to fit the best analytic techniques with the data and questions we have to answer. We would like to be able to identify specific library/librarian effects as a part of our research. But we know how hard this is going to be, given the design and analysis challenges we have experienced already, and outlined here. Another area to explore is the issue of interaction effects between variables. We have had some discussion that this should be pursued further in our research, and it is something we will be looking at in the process of data model considering. Of course, with so many variables, even the number of potential first order interaction effects is huge.

CONCLUSION

As the results of this study indicate, the field of school librarianship research needs to identify effective practices on the basis of multiple, high quality studies that employ experimental research designs in order to demonstrate robust effects on student learning. Research is difficult to conduct in real world educational settings. We suggest that anyone who is engaged in school library research should look long and hard at their measures, the data they collect, their design and their analyses. We recommend alternatives to address weaknesses in research design and analysis and specify a better understanding of the necessary conditions for causal inference in a quantitative study. Such conditions include:

- correlation between the causal agent and the outcome,
- necessity of the cause temporally preceding the outcome
- eliminating possible alternative explanations for any relationship between causes and outcomes (Shadish, Cook, & Campbell, 2002).

The third point is the most challenging, since we can never be certain in our quasi-experimental designs that we are controlling for all the critical alternative variables that could influence the outcome. In addition, the specific questions to be answered by the research need to be posed upfront before the research starts. It is critical that studies should be replicated at least once, and ideally multiple times, to assure the same results before it is accepted for publication. “Replication is the cornerstone of scientific research” and reliable findings from independent investigators is the primary way in which scientific evidence accrues for or against a hypothesis (Peng, 2015, p. 31). This is why multiple replications are critical to confirm causal relationships and prevent us from focusing on random positive effects. We recommend an interdisciplinary approach, with researchers in other disciplines, to encourage knowledge sharing amongst researchers from diverse fields. After all, school librarians collaborate with teachers in educational settings, school library researchers should do the same and engage with non-library researchers to answer questions about how students learn. We suggest working in conjunction with school library practitioners to identify and establish a stronger theoretical base for school library research. We also encourage school library publications to be more critical in their selection of research published and also consider publishing pre-registered studies, along with results, regardless of whether they are positive or not. Only by undertaking a more critical and rigorous approach to school library research will the quality and value of this research be advanced.

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Towards a Common Terminology in School Librarianship

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ABSTRACT

School libraries exist in most countries where they play an important role in education. However, the diversity of educational philosophies, policies, resources, infrastructure and technology have led to wide variations in what constitutes a 'school library', and its associated terminology. This diversity affects communication, collaboration, synthesis of evidence, and translation of research findings. If we are to promote school librarianship internationally, it is important to have a common terminology. This paper presents the preliminary findings of an international survey on the terminology and characteristics of school libraries. Based on responses from school library stakeholders from 19 countries, it was found that the more common term used to describe the facility was 'school library', while term used for the person managing it was 'school librarian' or 'teacher librarian'. While few countries had a formal definition of a school library, the respondents were able to provide the desired characteristics of a school library and of a teacher-librarian. These findings can be used to develop consistent and internationally-applicable terminology and definitions for school librarianship.

Keywords: *School Library, Teacher Librarian, Terminology, Common Language, Comparable Data*

INTRODUCTION

School libraries play an important role in education. The UNESCO/IFLA School Library Manifesto (1999) states that school libraries

provide information and ideas that are fundamental to functioning successfully in today's information and knowledge-based society. The school library equips students with life-long learning skills and develops the imagination, enabling them to live as responsible citizens.

The more recent International Federation of Library Associations (IFLA) School Library Guidelines (2015) state that

the goal of all school libraries is to develop information literate students who are responsible and ethical participants in society.

Many studies, both from the library and pedagogical perspectives, have shown that school libraries contribute towards better educational outcomes. School libraries promote a love for reading, provide a conducive place for work, support students in their studies, help them keep abreast with current developments, broaden their outlook, serve as an access point for information, and support students, teachers and administrators in many other ways.

The importance of school libraries has been acknowledged internationally. The existence of organizations such as the International Association of School Librarianship (IASL) and the International Federation of Library Associations and Institutions (IFLA) Section on School Libraries is recognition of the existence of school libraries in many countries. The various international and regional conferences are also testimony to the recognition of school libraries internationally.

It is thus generally accepted internationally that school libraries are important in the educational process.

However, variations in national and local policies, availability of resources, differences in curricula, changing technology, and other factors lead to school libraries taking on different shapes and forms. School libraries also evolve with time. Rapidly changing technologies, for example, leads to variations in what is considered to be a school library. While in some ways, this diversity is healthy and

necessary for progress, it is also important to have some commonality in discussing school libraries. In particular, there is a need for commonality in terminology and understanding what a school library is.

The Issue

There is much diversity in terminology in the field of school librarianship. The literature uses many different terms to describe a school library, including ‘school media centre’, ‘school resource centre’, ‘centre for documentation and information’, ‘library resource centre’, ‘learning commons’, ‘knowledge centre’, and other terms. The recent IFLA School Library Guidelines (2015) acknowledge this diversity in terminology.

Similarly the designation for the person managing the school library also varies, with terms such as ‘teacher librarian’, ‘school librarian’, ‘library media teacher’, ‘resource centre manager’, ‘school library coordinator’ and others being used.

There also appears to be no common agreement on what constitutes a ‘school library’, and how it differs from a ‘media center’, a ‘resource center’ or a ‘learning commons’; similarly with the term ‘teacher-librarian’, and how he or she differs from a ‘school librarian’, or a ‘school library coordinator’ or a ‘resource center manager’.

The recent *IFLA School Library Guidelines* (2015) define a school library as *a school’s physical and digital learning space where reading, inquiry, research, thinking, imagination, and creativity are central to students’ information-to-knowledge journey and to their personal, social, and cultural growth.*

The National Center for Education Statistics (NCES), in its schools and staffing survey, defines a library media center as

an organized collection of printed and/or audio-visual and/or computer resources which is administered as a unit, is located in a designated place or places, and makes resources and services available to students, teachers, and administrators (NCES, 2013).

The [Colorado] Library Research Service, uses the following definition:

a dedicated facility located in and administered by the school that provides at least the following: an organized, circulating collection of printed and/or audio-visual and/or computer-based resources, or a combination thereof; paid staff; an established schedule during which services of the staff are available to students and faculty; instruction on using library materials to support classroom standards and improve student research and literacy skills (Library Research Service, 2014).

This diversity of terms hampers communication and collaboration, makes collection and comparison of statistics difficult, limits the synthesis of evidence, and the linking of research findings from diverse settings. Improving uniformity of terminology can help address some of these challenges. There is a need to adopt a simple universal terminology in school librarianship that can be applied across all countries. If we are truly to promote the development of school libraries internationally, it is important we have a common terminology to describe ourselves and what we do. A well-accepted terminology can ensure a common meanings, and support data collection, reuse and integration. A common terminology also can allow studies to build upon previous findings and to reuse data collection tools.

The need for a simple universal terminology for the respective fields has been expressed in areas as diverse as **software measurement** (Garcia, 2006), fish reproduction (Brown-Peterson *et al*, 2011), health practices (Colquhoun *et al*, 2014), **biobanking and human genetics** (Fransson, 2015), **climate change** (Fischelli, 2016), **play behaviour** (Miller, 2017), and other domains.

The field of school librarianship too needs a common terminology and clear definitions.

Objectives

The objectives of this study were to:

1. Examine how different countries use key terms related to school librarianship, how they define them, and
2. Provide recommendations for moving towards a common terminology in the field of school librarianship.

METHODOLOGY

The study involved a survey of selected respondents from countries across the world. They were asked about the terminology used in their respective countries or organizations, their definitions, and what they considered to be essential features of a school library and the person managing it.

A simple four-question open-ended questionnaire was designed and distributed electronically to 30 respondents chosen from among members of IASL, one from each country, in May 2017.

Findings

Nineteen usable responses were received and examined using content analysis. The countries that were represented in the responses are shown in Table 1 below.

Table 1. Responding Countries

Antigua & Barbuda	Fiji	Japan	Singapore
Australia	Hong Kong	Malta	Sri Lanka
Botswana	India	Nepal	Turkey
Colombia	Ireland	Netherlands	Zimbabwe
Croatia	Jamaica	Russian Federation	

Terminology

Respondents were first asked to indicate the term used in their respective countries to describe the facility and/or service that supports the students reading, inquiry and research.

The majority of the countries use the term ‘school library’. However other terms were also used, as shown in Table 2 below, in some countries.

Table 2. Terms used to Describe Facility / Service

School library	Media resource library
Resource center	Learning commons
School resource center	Learning hub
Learning resource center	iCenter
Library resource center	Leadership center
Knowledge center	

It was interesting to note that there were sometimes variations within a country itself, with different terms being used in elementary (primary) and high (secondary) schools, and in public and private schools. There were also variations reported depending on whether the facility had computers. In one country, several libraries within one school constituted an information center. Part of this diversity could have been, as one respondent indicated, the term library is associated as a book repository, and in an effort to reflect the difference between the traditional and the contemporary library.

Respondents were also asked the term used for the person managing the facility / service. The more commonly used terms were ‘School Librarian’ and ‘Teacher Librarian’, depending on whether the person had a pure library qualification or combined with a teaching qualification, and their roles.

Table 3. Terms used for Person Managing the Facility / Service

School Librarian	Library Officer
Teacher Librarian	Library Coordinator
Librarian	Resource Center Coordinator
Library Manager	Media Coordinator Teacher

Definitions

The next set of questions asked respondents for definitions of ‘school library’ and of ‘school librarian / teacher librarian’ (or associated terms) used in their country.

Few respondents were able to provide or point to clear definitions. Some respondents pointed to official documents that pointed to characteristics or services of a school library and how they could be measured, but did not define it.

In the absence of a definition, respondents were asked what characteristics they would include in describing a school library. The consolidated responses are summarized in Table 4 below.

Table 4. Characteristics of a School Library

Dedicated facility Managed by a trained person Has a collection of purposefully selected resources Collection is organized according to international norms / standards Provides services for learning, informational, recreational and cultural needs	Free access to users Dedicated funding provided – initial and on-going Consistent with, and support for, national / school mission, goals and policies
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There were also some variations based on local policies, needs, available resources and other variations.

A similar situation was with the definition of a school librarian or teacher librarian. Very few respondents were able to point to clear definitions. Some respondents pointed to documents that pointed to services to be provided, but did not define it.

In the absence of a definition, respondents were asked what qualities they would include in characterizing a school librarian or teacher librarian. The consolidated responses are summarized in Table 5 below.

Table 5. Qualities of a School Librarian / Teacher-Librarian

Has a teaching qualification Has a library qualification Is a full member of the school staff Has a management role to develop the school library Has a teaching role to further the aims of school library	Collaborates with other school staff Has adequate support staff Service oriented Has support for continuing education
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Significance of Findings

These findings, though preliminary, can be used towards developing a common terminology, which can lead to the better communication, development of norms and standards, facilitate the collection of comparable statistics, and enhance collaboration in the development of school libraries internationally. A common terminology and consistent definitions would also help to communicate with non-library persons, including administrators and policy makers.

RECOMMENDATIONS

The findings from this study are provisional due to the limited sample size. The study needs to be extended to cover a wider sample and gain more input. However, the preliminary findings in this study can be used a basis for further study. The draft terminology can be refined through feedback and consultation with the various stakeholders, and tested for usefulness through application and evaluation.

The eventual aim would be to reach consensus on the terminology and definitions of key terms used in school librarianship.

CONCLUSION

This study has explored the terminology of key terms used in the field of school librarianship. While no definitive conclusions can be drawn from the study due to exploratory nature and the small sample size, it nevertheless provides foundations for the development and use of a common terminology for the betterment of school libraries, their management and their services.

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An Analysis of the Jamaican Grades 1-6 Curriculum for the Development of a Media and Information Literacy and Intercultural Dialogue Cross-Curriculum

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ABSTRACT

The main objective of any curriculum is the relevancy of the content in meeting the curricular and co-curricular short and long term needs of the students so they can function well at their level in the society. The researcher used the content analysis methodology to analyse the content of the Grades 1-6 Ministry of Education Youth and Information (Jamaica) Curricular with the aim of developing a school library cross-curricular. Based on the analyses there was evidence that more information literacy topics were implicitly embedded in the school curriculum guides than media literacy and intercultural dialogue. The AASL Standards for the 21st Century Learner competencies was either sufficiently evident, limited or absent from these school curricular. The cooperative learning teaching strategy, the multiple intelligences theory and the Big6 information problem solving skills were also absent from these curricular. The researcher used the subject areas in addition to the MILID components to develop a cross curricular school library MILID curriculum which will facilitate the collaboration of teacher librarians and teachers in the planning and delivery of the lessons.

Key words: School Library Cross-Curricular, Media and Information Literacy Curriculum, Intercultural Dialogue Curriculum, School Library Curriculum

INTRODUCTION

The main objective of any curriculum is the relevancy of the content in meeting the curricular and co-curricular short and long term needs of the students so they can function well at their level in the society. The Information Age has brought about a proliferation of media and information providers that everyone, including primary school students, uses to access and disseminate information. As a result the school and the library curriculum should include content that will teach students how to be media and information literate. This becomes necessary because there are challenges when evaluating the relevancy and the reliability of the information. The emergence of media tools that allow students to communicate across borders makes it critical for the teaching of intercultural dialogue. UNESCO has therefore recognized the need for students to acquire Media and Information Literacy and Intercultural Dialogue (MILID) competencies to effectively engage with media and information providers. UNESCO also notes that a Media and Information Literacy (MIL) Curriculum should be incorporated into the formal education system because according to Wilson (2012), “the capability allow citizens to engage with media and other information providers effectively, and develop critical thinking and life-long learning skills for socializing and becoming active citizens” (para. 2).

The paper looks at Taba’s conceptual framework for developing a curriculum. Next, it emphasises curriculum development in general and examines the advantages of using a cross-curricular design. The paper then indicates the competencies that are to be embedded in any MILID curriculum and highlights two examples of cross-curricular teaching models. The research then details how the teacher librarian can use a school library cross-curriculum to collaborate with classroom teachers to deliver lessons to students in all grades. This is followed by a detailed description of the Ministry of Education, Youth and Information (MOEYI) Curriculum; the theories underlying the development of the new curriculum are outlined, as well as how the American Association for School Librarians (AASL) Standards for the 21st Century Learner can be used in the development of the MILID curriculum. The paper then describes the methodology used to determine the MILID competencies in the curriculum

developed by the MOEYI and the conceptual framework that the researcher used to develop the MILID curriculum. The findings and the analysis are detailed and the research ends with a graphic depiction of what the MILID cross-curriculum looks like, as well as a sample lesson plan.

The objectives of this paper are therefore to:

1. Find out the number of focus questions in the grades 1-6 curricular;
2. Identify the number of MILID topics in the MOEYI grades 1-6 curricular;
3. Use the topics in the MOEYI grades 1-6 curricular and the MILID components to develop a MILID cross-curriculum for school libraries;
4. Use the AASL Standards for the 21st Century Learner, cooperative learning, multiple intelligences theories, and the Big6 information literacy problem-solving skills in the creation of the lessons in the library curriculum.

Rationale and Significance

At present, there is no Media and Information Literacy and Intercultural Dialogue Curriculum for primary school children in Jamaica. In this Information Age, such curriculum is needed to ensure that the knowledge, attitude and skills required are taught in a systematic manner so that these students can function effectively and efficiently in the media rich environment. The school libraries need an MILID curriculum that will be easily incorporated into the school's existing curricular. This will make it easier for the Ministry of Education, Youth and Information to use it in the primary schools.

This research is significant because, as Alviar (2015, para. 5) states, "the development of a curriculum is not only about the school, the learners and the teachers. It is also about the development of a society in general." Additionally, this research is worthwhile as the curriculum that will evolve will provide a flexible structure for teachers to follow and will include learning outcomes for students to become life-long learners. The curriculum designed will use the cooperative learning and the multiple intelligences teaching strategies that will prove effective to help fulfil the curriculum objective of the Ministry of Education Youth and Information that *every child can learn every child must learn*. In addition, the impact of a MILID curriculum on students' learning will allow them to display appropriate MILID behaviour, which is a pre-requisite for participating effectively in the information society.

Conceptual Framework

Emans' (1966) description of Taba's conceptual framework was used to guide this research. Taba states that this framework is "a way of organizing thinking about all matters that are important to curriculum development , identifying the elements of the curriculum, stating what their relationships are to each other, and indicating the principles of organization and the requirements of that organization for the administrative conditions under which it is to operate" (237).

LITERATURE REVIEW

Curriculum Development

Bilbao, Lucido and Iringan define curriculum development as a "planned, purposeful, progressive, and systematic process to create positive improvements in the educational system" (in Alviar, 2014, para. 2). They note that school curricula are affected whenever there are changes or developments around the world. As a result, there is a need to constantly re-design curricular to meet the academic and personal needs of students and for them to cope with the needs of the society. One such change that propelled the researcher to conduct this research that will lead to the development of a curriculum is the emergence of the Media and Information Literacy and Intercultural Dialogue concept.

The HMLE Improvement Scottish Education (2007, p. 4) notes that the number of schools adopting cross-curricular approaches to learning and teaching in a range of subject areas was on the increase. The report points out that the subjects commonly included in this type of instruction are aspects of English language, religious and moral education, drama, social subjects and personal, social and health education. The researcher will also take the cross-curricular

approach to curriculum development as this can be implemented easily by teacher librarians collaborating with classroom teachers.

ConnectEd (2010) states that principals and teachers who have used the cross-curricular approach indicated that they have used it to move from a passive pedagogical approach to active teaching and learning where students were more engaged. There were also instances where students became the centre of learning by collaborating on real-life, career-focused projects and problems that were connected to their interests and future pursuits. The design also facilitated a teacher-directed rather than teacher-centred approach.

Competencies Within a Curriculum

Nikolov, Shoikova and Kovatcheva (2014, p. 4) state that researchers in the field of competence have proffered a number of definitions for the term competencies. These are: “permanent distinctive traits and characteristics which determine performance; distinctive characteristics which differentiate the successful performer from the rest; an ability to reach goals; inner personality traits that allow a person to cope better with a given task, role or situation; knowledge, skills, abilities and other characteristics demonstrated at work, etc.” This definition shows that curriculum competencies consist of components that will lead students to acquire the requisite knowledge, skills and attitude.

These competencies are evident in information literacy and will enable students to “recognize when information is needed and have the ability to locate, evaluate and use effectively the needed information” (Association of College and Research Libraries [ACRL], 2000). Additionally, ACRL points out that the Leddy Library emphasizes the importance of critical thinking skills to information literacy which also means that an information literate individual has the ability to reflect critically upon and evaluate their own research strategies, the tools used, the resources found and the context in which the resources were produced. Media literacy will “empower citizens to understand the functions of media and other information providers, to critically evaluate their content, and to make informed decisions as users and producer of information and media content” UNESCO, n.d.). Intercultural dialogue competencies are necessary to prevent conflict as people communicate across culture. UNESCO in support of this states that because of technology, the world is more interconnected and so for individuals and societies to live together in harmony and in a safe world adequate wisdom is needed to prevent conflict” (UNESCO, n.d.).

Designing a Cross-curricular Framework

When designing a curriculum there are some key questions the planner needs to ask. Some of these are cited by Webber (2016) as: Does the curriculum include skills which prepare students for college and for the 21st century workforce? Are teachers using the curriculum to guide decisions about instruction and assessment? What are the strengths of our curriculum? What are the weaknesses of our curriculum? These questions are pertinent because for teaching and learning to be successful there must be clarity about important learning outcomes and about the evidence that will show that learning has occurred (McTighe, 2010 in Webber, 2010).

ConnectEd (2010) highlights some important requirements for developing a cross-curricular. One requirement is that, there needs to be an agreement to implement a common curricular focus that will cut across disciplines. The research concurs with this requirement because it is ideal for teacher librarians. For example, teacher librarians need to work with all teachers of various subject disciplines to locate resources in the library and to collaborate in the teaching and learning process in order to make students’ learning more meaningful. This type of teaching arrangement fits the other requirement, which is a flexible schedule that allows integrated, multidisciplinary project work and involvement with the world beyond school. The flexible timetabling of students to use the library is extremely important. It means that students will always get to use the library at the point of need. The teacher librarian will at this point provide the resources for their projects as well as teach them the research skills necessary to complete their project.

For this to be accomplished, the teacher librarian has to be aware of what is been taught in the classrooms, which supports the other requirement stated by ConnectEd (2010), that of common planning time allotted for teachers, to formulate and coordinate the components of an integrated unit. During the

common planning time, the teacher librarian will meet with the teachers, find out what they are planning to teach and use this knowledge to prepare resources that will meet both teachers' and students' information needs. It will also show the work that students need to do outside of their classroom setting. Therefore, when designing a cross-curricular activity, the teaching methodology section should indicate the role of the teacher and the role of the librarians and any other persons that will be involved in the preparation or delivery of the lessons. This shows the shared responsibility involved in the delivery of a lesson within a cross-curriculum.

Cross-curricular Teaching Model

In describing the cross-curricular teaching model, Barnes (2104) opens chapter 14 of the book, *An Introduction to Cross-curricular Learning*, with this colourful statement:

The world beyond the classroom is cross-curricular. Through my window I see walls, trees, people walking by, cars, birds, clouds and the occasional aeroplane – I understand none of them fully from the perspective of just one curriculum subject. I describe and appreciate the cherry tree outside using a combination of geographical, artistic, poetic, philosophical and historical vocabularies. Others might perceive the same scene by linking thoughts from mathematics, science, design, music, movement or religious education. We each look on the world, its objects, patterns and experiences, with different eyes. (pp. 260-261).

This gives a vivid picture that a cross-curricular framework contains an overlapping of pedagogy and the connection of subject elements which offer the opportunity to integrate and structure these separate learning experiences that can make teaching and learning more meaningful. A MILID cross-curriculum will show the collaboration between the teacher librarian and classroom teachers engaging students in the delivery of MILID lessons that are derived from the various subject areas in the Grades 1-6 curricular. The following shows two samples of cross-curricular teaching and learning in which the subject borders are exceeded and other subjects are integrated.

Figure 1. Sample of Cross-curricular Teaching – Mathematics and Sports

Cross-curricular Teaching - Example

PP-Form: Parallel Planning Form

Subjects: Mathematics and Sports

Teaching Sequence:

Sports: Discussing Long jump	Mathematics and Sports: Discussing the optimal Conditions for a very long jump. Helpful: mathematising	Sports: Long jump, Measuring angles and height of the jump	Mathematics: Calculations and graphs
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Mathematics and Sports: Evaluating and answering the questions:
Best: 45° and high velocity etc.

Source: <http://www.sciencemath.ph-gmuend.de/Download/Odense09.pdf>

Figure 2. Sample of Cross-curricular Teaching – Mathematics and Biology

JP-Form: Joint Planning Form

Subjects: Mathematics and Biology

Teaching Sequence:

Task: Write down what you ate in one day (in grams).

Bread:....
Vegetables:....
Fruit:..
Milk:....
Meat:...

Nutrition Circle

Do my eating habits conform to this diet?

Transfer the information (*Task*) into a **pie chart!**

Compare with the diet

Draw a personal perfect Nutrition plan!

Source: <http://www.sciencemath.ph-gmuend.de/Download/Odense09.pdf>

The Teacher Librarian and the Cross-curricular

The teacher librarian is said to be one of the most important individuals in any school system and the library is the heart of the school. This notion stems from the fact that the teacher librarian is the link that connects students and faculty to the sources they need to meet their information needs. The pivotal

role that librarians perform in school involves collaborating with teachers of any subject area to teach MILID topics, thus achieving the cross-curricular approach to teaching and learning. For example, in cooperation with the teacher who is teaching how to interpret pictorial data in Mathematics, the librarian can teach a lesson on visual literacy. Likewise, a lesson on relating to others outside of Jamaica can be used by the librarian to teach about intercultural dialogue.

What Does the MOEYI Curriculum Look Like?

Background information

In 1999, the then Ministry of Education Youth and Culture re-designed the Grades 1-6 primary school curricular. The re-design was due to the response to the demand from teachers, teacher trainers, parents, educators and other stakeholders. They advised that the revised curricular should “be based on the needs of the child and the society not on the requirement of a particular subject, the focus should be on learning rather than teaching; give children the opportunity to work together and discuss their work; recognize that there are different ways of being intelligent and provide opportunities for the development of all the intelligences; and children need to be educated about many social cultural and health issues. The curriculum should cater to these needs” (MOE, viii). According to Bowie (1999, iii) this interest group made a strong suggestion that concepts such as healthy lifestyle, Garveyism, tourism environmental awareness and the role of aesthetics in personal development be included in the curriculum.

Curriculum Framework

Grades 1-3 – cross-curricular approach

The grades 1-3 curricular were re-designed using the cross-curricular approach. The cross-curricular approach is defined as an approach to a topic that includes contributions from several different disciplines and viewpoints (Free Dictionary). This means that links are established between subject areas to make learning more meaningful. Critical to the development of this type of curriculum is the MOEYI mantra that *every child can learn, every child must learn*. This can be achieved, as the Ministry of Education in British Columbia states that a cross-curricular should lead to the development of the whole child – intellectually, personally and socially.

Additionally, this ministry asserts that cross-curricular competencies are the set of intellectual, personal, and social skills that all students need to develop in order to engage in deeper learning—learning that encourages students to look at things from different perspectives, to see the relationships between what they are learning in different subjects, and to make connections to their previous learning and their own experiences as members of their families, communities and the larger society (3). The content of the MOEYI curricular are therefore integrated and organized around specific major themes to facilitate greater meaning to learning. This is supported by effective methodologies, learning experiences and assessments (Barrett, 1999). These curricular illustrate the integration of content around major themes, the overarching theme being “*All about Me and My Environment*.” This approach adds greater meaning to learning and is supported by effective methodologies, learning experiences and assessments. Special time slots referred to as ‘windows’ are used to focus on the development of literacy and numeracy skills, which represents the emphases placed on this curriculum. The units are preceded by an overview of the themes, sub-themes and topics. Figure 3 shows the scope and sequence of these curricular.

Figure 3: Scope and Sequence of the Grades 1-3 Curricular

SCOPE AND SEQUENCE GRADES 1-3

	GRADE 1	GRADE 2	GRADE 3	
THEME	ALL ABOUT ME AND MY ENVIRONMENT			TERM
SUB-THEME	M	Y	S E L F	
Unit 1 Unit 2	- Who Am I? - My Body (Part I)	- My Body (Part II) - Care and Safety of Self	- My Body (Part III) - Satisfying Other Needs	1
SUB-THEME	MY HOME	MY FAMILY	MY COMMUNITY, THE NATION AND THE WIDER WORLD	
Unit 1 Unit 2 Unit 3	- My Family - Things in the Home _____	- Living Together as a Family - Satisfying Our Needs _____	- Providers of Goods and Services - Relating to Others Outside of Jamaica - Aspects of the Jamaican Culture	2
SUB-THEME	MY SCHOOL	MY COMMUNITY	MY PHYSICAL ENVIRONMENT	
Unit 1 Unit 2 Unit 3	- Myself at School - Together at School _____	- This is My Community - Places of Interest in My Community - Plants and Animals in My Community	- Living and Non-living Things in My Environment - Caring for My Environment _____	3

Source: MOE Curriculum, 1999, p. xv

Research Findings in the Use of Cross-curricular

Price (2010) conducted research commissioned by the National Teacher Research Panel on the benefit for teaching and learning of cross-curricular work in 2010. A number of findings emerged. These were: there was an improvement in the quality of numerous areas of pupil learning, including: questioning, self and group reflection, sharing of ideas, consensus and awareness of task requirements. Some students (from across the attainment range) became increasingly aware of the ‘thinking skills’ they were using. A minority became confident at transferring their use into different contexts. There was a general rise in confidence amongst the students in tackling tasks, making suggestions and criticising assumptions. Teachers also noted that effective collaboration was more apparent when students had time dedicated to thinking skills (p.1).

Grades 4-6 Curricular

Conventional discrete subject organization approach

The conventional discrete subject organization approach of the grades 4-6 curricular were retained when the primary school curriculum was re-designed. Phyllis (1999) mentions that although this is a discrete curriculum there are opportunities for integration through research and projects based on interdisciplinary themes. Additionally, Barrett (1999) pointed out that there is a greater linking of the content within and between topics to ensure coherence. A good feature of these curricular is that they are flexible so that teachers can adapt them to facilitate the varying learning styles and academic abilities. The Grades 4-6 curricular represent the discrete disciplines – drama, language arts, mathematics, music, physical education, religious education, science, social studies and visual arts with thematic integration being encouraged across subjects by the use of projects and group work. Technology is infused in all the unit. Each of these curricular has three strands that stretch across the curricular for the three terms. These are: creating, expressing, appreciating and evaluating. An example of the strands and how they are distributed across grades, subjects and terms is shown in Figure 4.

Figure 4: An Example of the Three Strands and Topics in the Grades 4-6 Curriculum

INTRODUCTION TO THE DRAMA CURRICULUM

Drama plays an important role in the education of all pupils. It encourages creativity, fosters imagination, and allows for the exploration of values. The socially interactive nature of Drama helps to heighten pupils' awareness of themselves and their environment.

The three strands in the grades 4 – 6 curriculum are:

1. Creating
2. Expressing
3. Appreciating and evaluating

These strands are important not only individually, but collectively, as they give pupils a greater understanding of, as well as enriching, the dramatic experience.

The learning activities are not exclusive to Drama as a subject, since they can also provide the medium for learning in other subject areas.

The titles of the related units for each grade level are shown in the table below:

GRADES	TERM ONE	TERM TWO	TERM THREE
GRADE FOUR	Story Building	Creative Use of Movement	Exploring the Senses
GRADE FIVE	Inventive Role-Play	Creating Dramatic Narrative	Exploring Voice for Dramatic Performance
GRADE SIX	Creating the Play Through Process	Culture and Drama	Establishing Relationships Within the Drama

Some important terms used in the Drama Curriculum are:

Role-Play: An activity through which pupils explore issues and ideas. It is a way of helping pupils to understand themselves, their peers and to empathize with the experiences and feelings of others.

Role: Assuming a character other than one's own.

Mime: Use of movement to communicate meaning without words.

Tableau: Frozen image to communicate an idea.

Improvisation: Group activity which enables pupils to explore specific ideas or problems, dealing with interpersonal relations or problem solving.

Tension: A point in a dramatic activity when something unexpected happens to move the drama forward.

Conflict: The situations in the dramatic activity which cause persons to have opposing views.
The problem to be resolved.

The key terms and their descriptions used in these curricular are shown in Table 1.

Table 1 – Key Components and their Description in the MOE Curriculum

Components	Description
Attainment target	Describes what pupils of different abilities and maturity levels should all understand and show by their behaviour that they value at the end of each level.
The objective	Indicates in measurable terms what pupils should be able to do in relation to specific lessons or sets of lessons. They are derived from the attainment targets and reflect what is to be achieved.
The focus question	Serves to define the scope and sequence of the unit. It gives structure and focus to the unit by ensuring that the essential concepts within the topics are addressed.
Key vocabulary or concepts	Are those essential and pivotal terms introduced during the course of the unit? They will become (if they were not before) part of the pupils' active vocabulary.
The procedure/ activities	Present the actual experiences in which the pupils will engage in order to achieve the stated objectives.
The skills	Indicate what distinctly and specifically the pupils will be able to do during the course of the unit. They indicate the dexterities and abilities the pupils are in the process of acquiring and are expressed as verbs in the continuous tense.
Assessment	Is there evidence of learning, that is, process development, conceptual insight and knowledge? Assessment tasks result in a tangible product, an observable performance or a combination of both.
Evaluation	Provides the criteria to guide the teacher in determining the level of performance by the pupils, that is, for assessing the products or performance presented.

Source: MOE Curriculum, 1999, p. x

Theories should Guide the Development and Delivery of the School Library Curricular

Multiple intelligences

Reynolds (1999) points out that the Grades 1-6 curricular are designed on the premise that every child can learn, and this is why the curriculum is designed to identify and develop all the multiple intelligences as theorized by neuropsychology and development expert Howard Gardner. After Gardner reviewed the traditional intelligences he conjectured that any individual has a variety of intelligences and briefly describes them as:

- Verbal-linguistic intelligence – well-developed verbal skills
- Logical-mathematical intelligence – ability to think conceptually, abstractly and discern logical and numerical patterns
- Spatial-visual intelligence – capacity to think in images and pictures, to visualize accurately and abstractly
- Bodily-kinaesthetic intelligence – ability to control one's body movements and to handle objects skilfully
- Musical intelligences – ability to produce and appreciate rhythm, pitch and timber
- Interpersonal intelligence – capacity to detect and respond appropriately to the moods
- Intrapersonal – capacity to be self-aware and in tune with inner feelings, values, beliefs
- Naturalist intelligence – ability to recognize and categorize plants, animals and other objects in nature
- Existential intelligence – sensitivity and capacity to tackle deep questions about human existence

Source: Thirteen Ed. Online, 2004

Howard Gardner (1983, 1993, 1999a, 1999b, 1999c, 2004, 2008, 2011) and other researchers (Caine & Caine, 2001; Diamond & Hopson, 1999; Jensen, 2005; Sylwester, 2004; Zadina, 2014, in Lunenburg & Lunenburg, 2014, p. 1) in the area of brain research offer knowledge for application in the

classroom. They have produced a plethora of new information that has implications for how children learn and how teachers teach. The work of researchers includes evidence that educators can use students' strong intelligences to strengthen the weaker intelligences. Therefore, this theory is suitable for Jamaican students who have varying levels of academic abilities. Another implication is that using multiple intelligences as a teaching strategy provides students with multiple ways to demonstrate knowledge and skills, increases engagement and learning and provides teachers with more accurate understanding of students' knowledge and competencies (Darling-Hammond, 2010).

Cooperative Learning

Reynolds (1999) mentions the use of cooperative learning theory, which will offer students opportunities to be engaged in group and project work. It is the researcher's belief that this is an appropriate theory within which to design this curriculum as the cooperative teaching strategy can allow students of all academic levels to experience success. Extensive meta-analyses across hundreds of research on the effects of cooperative learning on students' academic achievement confirm that students who are taught using this method have higher levels of reason, more frequent generation of new ideas and solutions, significantly higher test scores and deeper understanding of the material (Johnson & Johnson, 1989, Slavin, 1991, Herreid, 1998, Lord, 2001, Springer et al., 1999, Barkley, et al., 2005). All this is accomplished through the five elements of cooperative learning – positive interdependence, individual and group accountability, interpersonal and small group skills, face-to-face promotive interactive and group processing.

The Big 6 Skills Information Literacy Skills

The Big6 guide to information problem solving has six stages. These are task definition, information-seeking strategies, locate and access, use of information, synthesis and evaluation, which form the core elements of information literacy. The Big6 Skills are applicable to all subject areas at all grade levels to teach students how to solve problems, make decisions or complete specific tasks (Eisenberg & Berkowitz, 2017). The steps in the Big6 Information Literacy Skills should help students to complete their assignments successfully and to evaluate the tasks completed in terms of production and the process used to complete the product.

Standards for the 21st Century Learners

When developing a school library curriculum the Standards for the 21st Century Learner should be included as they offer vision for teaching and learning to guide our professionals as educational leaders. In the school library context, the Standards will both shape the library program and serve as a tool to help teacher librarians craft the learning of students in the school (AASL, n.d.). Another rationale for including the AASL Standards in the curricular is that standards establish the levels of performance that students, teachers and schools are expected to meet and while they typically define essential academic content knowledge, they should also define the competencies that contribute to success in modern life, such as life skills, learning and innovation skills, and information, media and technology skills (Partnership for the 21st Century Skills, p. 3). AASL summarizes the Standards into four main areas: inquire, think critically and gain knowledge; draw conclusions, make informed decisions, apply knowledge to new situations, share knowledge and participate ethically and productively as members of our democratic society and pursue personal and aesthetic growth. Subsumed under each area is skills, disposition in action, responsibilities and self-assessment strategies.

AASL (2007) gives an overview of these critical standards. In the area of skills and disposition in action, reading is seen as the fundamental skill for learning, personal growth and enjoyment. This area also includes the degree to which students can read and understand text in all its formats and context as a key indicator of success in school and life. The inquiry component of this area provides a framework for learning. It is mentioned by AASL (2007) that for students to become independent learners they must not only gain the skills but also the disposition to use those skills along with an understanding of their own responsibilities and self-assessment strategies. These elements combined can build a learner who can thrive in a complex information environment (p. 2).

For the standard that covers responsibilities, AASL (2007) noted that as the world becomes more globalized, students must be taught to seek diverse perspectives and gather and use information and social tools ethically, responsibly and safely. Twenty-first century learners need to develop information skills that will enable them to use technology as a learning tool. All students deserve equitable access to information and information technology in an environment that is safe and conducive for learning (p. 2).

The self-assessment strategies address the multiple literacies such as digital, visual and technological which have joined information literacy as a crucial skill for this century. As a result of the proliferation of information available to our learners each student needs to acquire the skills to select, evaluate and use information appropriately. This standard also addresses learning, which has a social aspect because it provides the opportunity to share and learn with each other. Therefore, students need to develop skills in sharing knowledge and learning with others both in face-to-face situations and through technology. School libraries are made mention of here as they provide equitable access to resources and tools required for learning in an inviting, stimulating and safe environment. Of importance, school librarians collaborate with others to provide instruction, learning strategies and practice in using the essential learning skills needed for the 21st century (p. 3). Table 2 shows an overview of the AASL (2007) critical standards for the 21st century learner.

Table 2: The AASL Standards for the 21st Century Learner and Some of the Skills to be Taught

AASL Standards for the 21st Century Learner	Skills	Dispositions in Action	Responsibilities	Self-Assessment Strategies
Inquire, think critically and gain knowledge.	Find, evaluate and select appropriate sources to answer questions.	Demonstrate creativity by using multiple resources and formats.	Respect copyright/ intellectual property rights of creators and producers.	Monitor gathered information, and assess for gaps or weaknesses.
Draw conclusions, make informed decisions, apply knowledge to new situations and create new knowledge.	Organize knowledge so that it is useful.	Demonstrate personal productivity by completing products to express learning.	Use valid information and reasoned conclusions to make ethical decisions.	Develop directions for future investigations.
Share knowledge and participate ethically and productively as members of our democratic society.	Connect learning to community issues.	Demonstrate teamwork by working productively with others.	Contribute to the exchange of ideas within and beyond the learning community.	Assess the quality and effectiveness of the learning product.
Pursue personal and aesthetic growth.	Read, view, and listen for pleasure and personal growth.	Display curiosity by pursuing interests through multiple resources.	Recognize that resources are created for a variety of purposes.	Interpret new information based on cultural and social context

METHODOLOGY

This is a qualitative research that collected data from the MOEYI grades 1-6 curricular through content analysis. Content analysis is defined as, “a research technique for making replicable and valid inferences from texts (or other meaningful matters) to the context of their use” (Krippendorff 2013, p. 24). Krippendorff also notes that this research technique “provides insight, increases a researcher’s understanding of particular phenomena, or informs practical actions” (2013, p. 24). The data collection instrument was an observation checklist which was created based on the Council of Chief State School

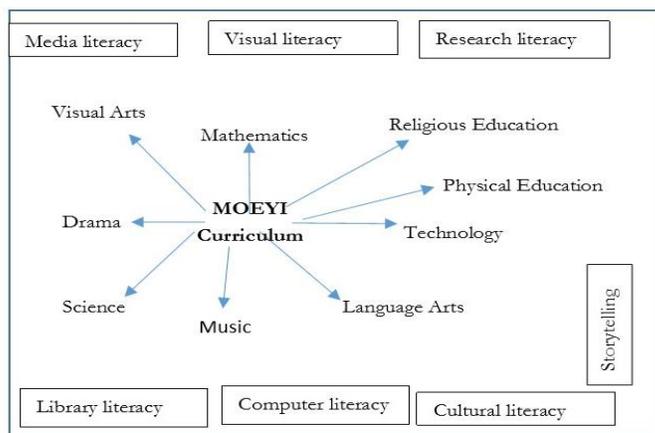
Officers' 2004 guideline for analysing curriculum content. The observation checklist was used to determine the subject areas that were recorded or implicit, the number of Focus Questions and the number of related MILID topics that were in the grades 1-6 curricular. The MILID topics were identified and labelled as ML, IL and ID.

The National Academy of Sciences (2004, p. 65) states, "An analysis of a curriculum's content should extend beyond a mere listing of content to include a comparison with a set of standards, other textual materials or other countries' approaches or standards." Therefore, the observation checklist included the description of the AASL Standards for the 21st-Century Learner and this was used to determine the presence of the AASL Standards in these curricular. Specific words and phrases such as inquire, critical thinking, draw conclusion were listed on the observation checklist and were ticked every time they were seen. These were totalled and described as sufficiently evident, limited or not seen. The data were collected over a period of one month and analysed. To support the analysis, the researcher engaged in triangulation by using quotes from the analysed text and literature (Krippendorf, 2013). The writing of the MILID curriculum took place over a period of four years using Taba curriculum conceptual framework and the theories mentioned in the literature review.

Findings and Analyses

The findings of the analysis of the grades 1-6 curricular show that there were subject areas that were clearly stated. These were, mathematics, religious education, physical education, technology, language arts, music, science, drama and visual arts. The ones that were implicit were media literacy, visual literacy, research literacy, library literacy, computer literacy, cultural literacy and storytelling. These are shown in Figure 5.

Figure 5: Subjects Identified in the Grades 1-6 Curricular



The first set of subject areas that were clearly stated represents the core subject areas of any primary school curriculum. However, due to the Information Age which is defined in the English Oxford Living Dictionary as, the era in which the retrieval, management, and transmission of information, especially by using computer technology, is a principal (commercial) activity. It therefore seems that these subject areas are inadequate to equip students with the necessary competencies to function effectively and efficiently in this type of society. The implicit subject areas that were identified fall within the MILID ecology and might have in some way provided students with some of these skills but in a very limited way. The number of these are shown in Table 3.

Table 3: The Number of Focus Questions and Implicit MILID Topics Identified in the Grades 1-6 curricular

Grades 1-3				Grade 4				Grade 5				Grade 6			
MILID Represented in Focus Questions				MILID Represented in Focus Questions				MILID Represented in Focus Question				MILID Represented in Focus Questions			
No. of Focus Questions	ML	IL	ID	No. of Focus Questions	ML	IL	ID	No. of Focus Questions	ML	IL	ID	No. of Focus Questions	ML	IL	ID
56	0	53	3	104	20	80	4	110	18	80	12	91	21	67	4

It was discovered that there were 56 focus questions in the Grades 1-3 curricular. In analysing the content of these curricular, it was discovered that 94.6% (53) of these focus questions could generate IL lessons and 5.4 % (3) ID lessons. Of note is that no clear-cut or discrete ML literacy competencies were represented in the focus questions. The Grade 4 curriculum had 104 focus questions of which 77% (80) could produce IL lessons, 19.2% (18) could yield ML lessons and 3.8% (4) could be used to create ID lessons. The Grade 5 curriculum had 110 focus questions. Seventy-three percent (80) of them could be used to create IL lessons and 16% (18) ML lessons. Twelve (11%) could generate lessons on ID. The Grade 6 curriculum had 91 focus questions of which 74% (67) could be used to generate IL lessons while 21.6% (21) could be used to develop ML lessons. Only a mere 4.4 % (4) could produce ID lessons.

This data indicate that in all six curricular there were a high percentage of IL lessons followed by ML and at all times a low representation of ID. The evidence of the implicit MILID topics seems to indicate that students who were exposed to these curricular were unknowingly taught some information literacy skills such as parts of a book and locating information from the content page, index and on maps. Media literacy competencies such as designing posters, communicating through graphic and other forms and interpreting graphic materials were also likely to have been discreetly taught under different subject areas. The ID lessons could have been embedded in lessons such as who are our Caribbean neighbours, how do I express and respond to music of our fore-parents and how do I express and respond to religious customs of peoples of different races? It is likely that since students were not exposed to this full cadre of MILID topics they would not have been fully equipped with MILID skills, knowledge and attitude.

AASL Standards for the 21st Century Learner Identified in the Grades 1-6 Curriculum

The researcher looked through the curriculum guides to see if there was evidence of the AASL Standards for the 21st Century as these standards provide the framework for which students should learn the essential skills for success in today's world, such as critical thinking, problem solving, communication and collaboration. Table 4 indicates what was gleaned.

Table 4: Evidence of AASL Standards for the 21st Century Learner in Grades 1-6 Curriculum

AASL Standards for the 21st Century Learner	Grades 1-3	Grade 4	Grade 5	Grade 6
1. SKILLS Inquire, think critically and gain knowledge	60% Sufficiently evident	60% Sufficiently evident	60% Sufficiently evident	60% Sufficiently evident
2. DISPOSITION IN ACTION Draw conclusions, make informed decisions, apply knowledge to new situations and create new knowledge	10% Limited	10% Limited	10% Limited	10% Limited
3. RESPONSIBILITIES	5 % Limited	5%	8%	10%

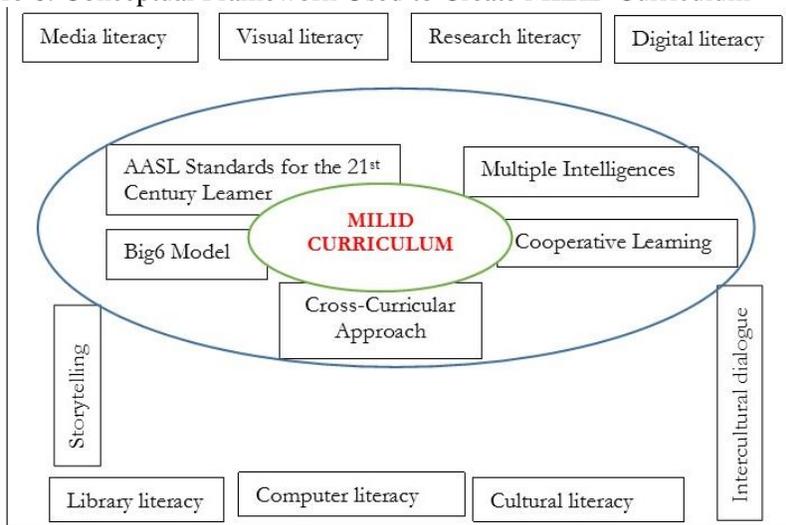
Share knowledge and participate ethically and productively as members of our democratic society		Limited	Limited	Limited
4.SELF-ASSESSMENT STRATEGIES Pursue personal and aesthetic growth	0% Not seen	0% Not seen	0% Not seen	5% Limited

The information in Table 4 indicates that the students exposed to these curricular would likely not have attained a reasonable level of the AASL Standards. Therefore, students would not gain the requisite skills required to function at their best in this media- and information-rich environment. It is likely that in the area of disposition in action, students would not have benefitted fully from sharing knowledge because of the absence of cooperative learning groups which promote teamwork through the cooperative learning element of face-to-face interaction via activities such as think-pair-share and think-square-share. In addition, in the area of responsibilities, knowledge such as plagiarism and how to avoid plagiarism could have been overlooked. For self-assessment strategies, it can be deduced that students have received feedback from teachers but there were no activities to show that the same was received from peers. The group processing element of cooperative learning would have helped to achieve this Standard.

Based on the analysis it became necessary for a school library curriculum to be developed that focuses on the literacies in the MILID ecology while ensuring that these are fully integrated into the regular subjects taught in these schools. The researcher used the knowledge gained from the content analysis, the conceptual framework, the theories mentioned and the AASL Standards for the 21st century learner to develop a school library curriculum guide from grades 1-6. This cross-curricular approach would not require any extra time for delivery as these subjects would be seamlessly woven into all subject areas. The conceptual framework is shown in Figure 6.

The Development of an Integrated MILID Curriculum

Figure 6: Conceptual Framework Used to Create MILID Curriculum



The conceptual framework shows the subject areas in the school library curriculum guide which are MILID related. These were used to create lessons related to the subject areas in the school grades 1-6 curricular, thus achieving the cross-curricular approach to teaching and learning. The lessons were created within the context of the theories of cooperative learning and multiple intelligences as well as the Big6 IL model. Each lesson also includes at least one of the AASL Standards for the 21st century learner. The conceptual framework is shown in Figure 7.

Figure 7: What the MILID Cross-curriculum Looks Like

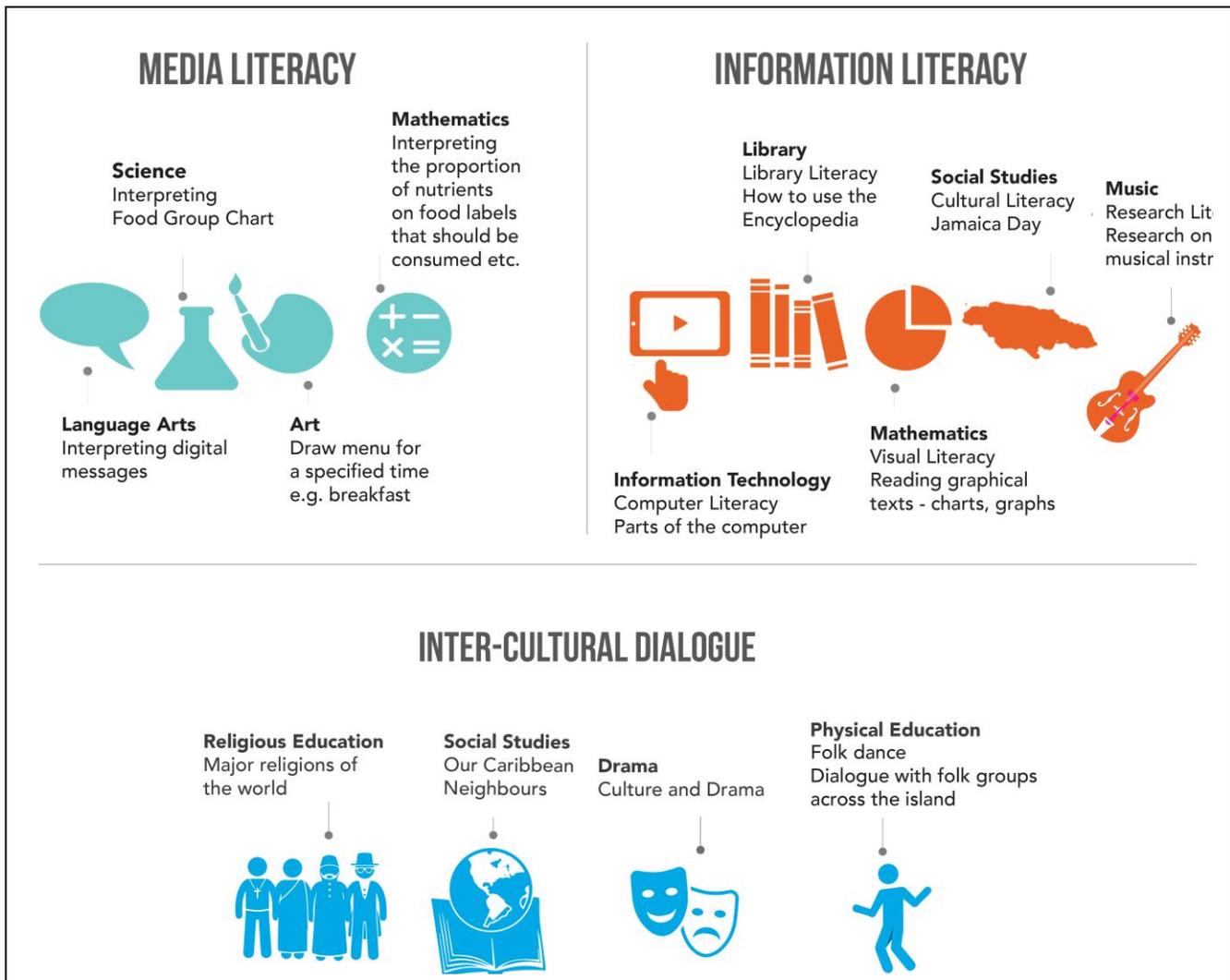


Figure 7 shows a sample of topics in the schools’ curricular that could be used as entry points to deliver MILID school library cross-curricular. In the area of media literacy, subjects such as science, mathematics, language arts and art, the teacher librarian can collaborate with the classroom teacher to generate media literacy lessons to integrate with the lessons on food groups. For example, there is a media literacy lesson to help students interpret, analyse and evaluate information on a food group chart which they need to use to create a specific menu. The science lesson in the school curriculum that is based on interpreting food charts can be integrated into a media literacy lesson to teach about ingredients on food labels and the proportion of nutrients that are good or bad for consumption as well as the advertising of food using digital technology to disguise the real appearance of what is actually sold.

Also in Figure 6, it is shown that information literacy can be integrated in a number of subject areas that were taught in the classroom. This is where the various types of literacy will be addressed such as the visual literacy that can be integrated with the mathematics lesson on reading graphical texts such as charts and graphs. With the emphasis now being placed on research in the primary schools in Jamaica, students’ research skills can be enhanced under the area of information literacy; in this area the teacher librarian can help students with whatever content is being taught in class to define the information needed, determine the possible sources and select the best ones, locate sources and find the information within the

sources, engage with the resources and extract the relevant information, organize the information from multiple sources in a coherent manner and finally evaluate the product in terms of effectiveness and efficiency (Big6). The proper use of the library and the use of information technology is also embedded in information literacy. These two are extremely important in the research process.

The phrase intercultural literacy is not now being used in the primary school curricular, but there are topics that can be used to integrate lessons to bring out the competencies and standards in this area. Religious education, social studies, drama and physical education as shown in Figure 6 are topics which can be seamlessly integrated into the intercultural lessons. In these subjects students can learn how to accept their culture and that of their Caribbean neighbours, recognize cultural and religious differences and deal with them harmoniously. Students are thus being trained to become good citizens as they use the knowledge gain from these lessons to communicate harmoniously and respectfully to everyone.

Sample Lessons from the MILID Curriculum

Topic:

School Library Curriculum: Types of Families

Grade 2: Living together as families

Attainment Target: For students to understand that families have different structures and compositions.

Lesson Outcomes

At the end of the lesson students should be able to:

1. Describe the different types of families from which students in selected classes belong;
2. Ask appropriate questions to find out the types of families in which students belong;
3. Create a simple bar graph to show the findings of their research on family types.

Information resources: Simple interview schedule, notebook, pencil

Skills: Interviewing, recording, reporting

AASL Standards for the 21st Century Learner: Responsibilities – solicit and respect diverse perspectives while searching for information

Teacher librarian and classroom teacher activities:

1. Collaborate with classroom teacher to revise the types of families.
2. Teach social skills: Listening looks like/listening sounds like.
3. Engage: Guide students to describe their family structure and components.
4. Review: Step 1 and 2 of the Big6 information literacy skills – task definition and information seeking strategies.
5. Explain to students that they will be collecting information from students in other Grade 2 classes about the type of family in which they live. Help students to understand the task and how they will go about collecting the information.
6. Assist students in formulating the questions for the collection of data on family type, e.g.,
 - a. Who is the head of the household?
 - b. How many males and females are in your family?
7. Using examples, guide students on how to compare the size of the families using mathematical signs such as equal, greater than and less than, as well as comparative English words such as small, smaller, smallest.
1. Have students work in cooperative learning groups to ask each other similar questions and record data. Have the group leader report the findings for the group members using the words small, smaller, smallest or equal, greater than and less than.
9. Assign students to specific classes that previous arrangements were made for them to collect data.
10. Comment on reports from students and correct where necessary.
11. Display students' findings in the classrooms from where they were collected.

Suggested Student Activities

1. Respond to social skills questions – e.g., listening looks like eye contact, listening sounds like quietness.

2. Participate in revision.
3. Listen attentively to tasks they are required to complete and ask questions for clarification. Discuss the strategies to be used to collect the data.
4. Individual accountability – each student will relate how they will approach their respondent.
5. Work in cooperative learning groups to collect data on the types of families. Have the group leader report on the findings of the group.
6. Students collect data from a select number of students in other Grade 2 classes.
7. Write the findings using the words, small, smaller, smallest or equal, greater than and less than.

Library Activity: Work with the librarian to locate mathematics text with information shown in simple graph format.

Vocabulary: family, living, together, members

The lesson plan shows that the teacher librarian will collaborate with the Grade 2 classroom teachers because the topic is common to all grades 2 classes and the school library curriculum is written to match what is being taught in these grades. This is to provide the required entry point for all teacher librarian and teacher collaborations. It should be noted that cooperative learning was included to provide a learner-centred lesson and to promote interdependence as well as individual accountability. The AASL Standards for the 21st Century Learner was chosen because it fits well with the activities of the lesson. In addition, the first two steps of the Big6 information literacy skills were needed because the teacher librarian and the classroom teacher have to explain the tasks as well as the strategies to collect the data to their students. The social skill of listening was specifically chosen because students were going to be engaged in interviews and needed to learn listening skills. Of note is the mathematics lessons that is embedded in this lesson on using the symbols greater than and less than to make this lesson truly cross-curricular.

CONCLUSION AND IMPLICATIONS

Based on the findings, the present Grades 1-3 curricular in Jamaica was developed using the cross-curricular approach. However, Grades 4-6 curricular were distinct due to the capacity for integration through research and project works based on interdisciplinary themes. This means that there could be some difficulties with the teacher librarian being able to integrate what is being taught in the classroom with the MILID competencies. The teaching strategies correlated with cooperative learning and multiple intelligences were not evident in the activities section as there was no mention of the elements of cooperative learning or even the types of multiple intelligences. This implies that students were likely to be less engaged with each other and their strongest intelligence was not used to strengthen the weaker ones. The low percentage of MILID topics that was evident would not likely allow students to acquire the knowledge, skills and attitude to function effectively and efficiently in this information environment.

There were also in many instances a small percentage of the AASL Standards for the 21st Century Learner in each curriculum which means that the teacher librarian would have to play the leading role in seeing to it that school library lessons incorporate these standards to help students achieve to adequately achieve a high level of success in these standards. The absence of the Big6 skills were obvious and this has likely resulted in students not being fully information literate as well as not having the requisite skills to complete an assignment or any other task with a high level of satisfaction. The cross curricular approach to the MILID school library curricular will not in any way increase the teaching load of teacher librarians and teachers. It will instead result in better learning outcomes for students in this information age.

RECOMMENDATIONS

Based on the findings the following recommendations are being made:

1. The Curriculum Development Unit at the MOEYI should be made aware of MILID, the AASL Standards for the 21st century learner, the Big6 information problem solving skills so that these can be included in the primary school curricular when next they will be revised.
3. The revised curriculum should also include information on how to use the multiple intelligences theory as well as cooperative learning strategy in lessons.
4. The MOEYI grades 4-6 school curricular should also be re-designed to use the cross- curricular approach.

FURTHER RESEARCH

Similar research should be conducted on the Grades 7-13 curricular. The findings should be used to develop a secondary school library cross-curriculum for these grades.

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School Librarians in Action: A Comparative Study of School Library Programs in Croatia and Hong Kong

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ABSTRACT

The study explores library programs in primary and secondary schools in Croatia and Hong Kong. The aim is to find what library programs the school libraries in Croatia and Hong Kong run in their schools, how these programs affect students' learning and what are similarities and differences between school libraries in Croatia and Hong Kong. The study findings show that school libraries on both locations run programs to support students' reading and to enhance their information literacy and research skills. School library programs in Croatia and Hong Kong include some similar components but also differ in some respects in approach and content. School librarians in Croatia involve wider community engagement while school librarians in Hong Kong apply technology for collection development and library instruction. Library programs in schools in both locations transcend the school walls and reach beyond the school curriculum as well.

Keywords: School Library Program, Croatia, Hong Kong, Primary School, Secondary School, Reading, Information Literacy, Collaboration, Technology

INTRODUCTION

Educational and instructional trends such as implementation of inquiry-based learning, collaborative approach to teaching and learning, learner-centered learning culture together with the implementation of modern technologies have significantly changed the role of libraries in school environment. School libraries become essential for teaching and learning and school librarians are getting more often engaged in performing various instructional duties. According to IFLA (2015) school librarians' instructional work involves literacy and reading promotion, media and information literacy instruction, supporting and guiding inquiry-based learning, integration of technology to teaching and learning as well as taking an active role in the professional development of teachers. School librarians are developing instructional components in their library programs, with emphasis on collaborative approach and application of modern technologies. The goal of modern school library is to support students' learning within school curriculum and beyond formal education system, learning any time and at any place. As school library programs differ from country to country due to differences in roles and status of school librarians (Lupton, 2016), comparative studies of school library programs in different countries will help us understand the functioning of school libraries in different environments and also may bring some new ideas to school librarianship practitioners. This study aims to explore library programs in primary and secondary schools in Croatia and Hong Kong and to find out how these programs support students' learning inside the library, across the school and beyond.

LITERATURE REVIEW

The literature on school libraries roles, programs and activities is abundant and as this study

focuses specifically on school libraries in Croatia and Hong Kong we reviewed recent studies involving school libraries in the Croatian and Hong Kong context.

Educational Roles: Reading support and information literacy instruction

Modern school librarians play multiple roles in school environment. They are library administrators, collection managers and information specialists who provide access to library materials but they also teach skills required for using resources and communicating new knowledge ethically and effectively.

Many studies focus on educational roles of school librarians including students' enhancement of reading, information literacy instruction. Lo et al (2014a) examine roles of school librarians in Hong Kong, China, Taiwan, South Korea and Japan and find that school librarians in all five countries give priority to library reading programs.

A similar study has been conducted by Zorica and Dukic (2016) on a sample of primary school librarians' in Croatia and it was also found that school librarians gave priority to reading promotion programs, while teaching information literacy received less attention. It was also found that new technologies are rarely used for enhancement of library collections and services.

Chu et al (2008) examined how inquiry-based learning (IBL) affected students' reading and language abilities. Authors used a perceptual survey to detect students', teachers' and parents' opinions regarding improvement in student reading ability after the completion of an IBL, and suggested further investigations of the influence of instructional approach on improving students' reading.

Cheng (2012) researched school teachers' and students' perception of the functions and roles of teacher-librarians and found that most of the students and teacher participants were unfamiliar with the concepts of information literacy and information skills. Cheng also found that school library services were mostly related to books and reading.

In their study about the roles of school librarians as information literacy specialists, Lo, et al. (2014b) found that major reasons for Hong Kong students to visit the school library are still borrowing library resources and using library as a reading space. So, reading support is still perceived as library's primary function.

A study by Shu, et al. (2014) explored the educational role of primary school librarians in Hong Kong, Taiwan and Mainland China and found that school librarians in Hong Kong and Taiwan are more effective in developing students' information literacy and fostering students reading abilities. The author concluded that improvements are still needed and suggest to school librarians from Hong Kong to run workshops for teachers on implementation of information literacy to teaching.

Warning, et al. (2013) investigated the educational roles of primary and secondary schools teacher librarians in Hong Kong and found that their obligations to teach subject courses leaves them little time to provide library services and prepare and deliver library lessons.

Collaboration with Teachers and Other Libraries

Collaboration with teachers is an important component of school librarian's work and through collaboration with teachers school librarians demonstrate that their work helps to improve students' achievement (Cooper and Bray, 2011). Research shows that school librarians collaborate with teachers most often in reading promotion and developing library collections and less often in information literacy instruction (Lo et al, 2014b; Shu at al., 2014). Chu, et al. (2011) researched the impact of collaborative teaching on primary school students' information literacy and IT skills and concluded that good collaboration between school teachers and librarians had a positive impact on students' learning. Lai and Wei (2013) examined the integration of information literacy into the secondary school curriculum in Hong Kong and concluded that improvements are needed regarding librarians' and teachers' understanding how to develop information literacy program and how to work together on program implementation. Lo, et al. (2014b) researched information literacy instruction by school librarians in East Asian countries and found that Hong Kong teacher librarians most often teach IL skills separately from teachers, and only sometimes in collaboration with subject teachers.

School librarians are also encouraged to develop and implement library programs in collaboration with other libraries and cultural organization in the local community and in this way enrich their programs

with new contents and activities (IFLA, 2015).

Stricevic (2008) researched the collaboration between school libraries and public libraries in Zagreb (Croatia). She found that the collaboration with local public libraries is most efficient when started and organized by school librarians as they are well acquainted with the situation within the whole school and are familiar with public library services as well.

Using Technology and e-Resources

Using technologies in school libraries is an important topic as school librarians are often expected to be technology leaders in their schools (Johnstone, 2012; Halverson & Smith, 2009; Wine, 2016). Udina (2014) conducted a survey on technology use in school libraries in Croatia and found that school librarians use technology on a daily basis and for different purposes like providing information about library and its collections, circulation of library resources and email. From time to time they use technology for preparing library lessons, work with students and teachers and also for projects and team work. The conclusion is that school librarians use technology less often than expected, probably because of the lack of funds for equipment and also a negative response to technology by some teachers and some librarians.

A number of studies explored how acceptable e-books and e-readers are to library users in school and public libraries in Croatia. Milicki and Sudarevic (2016) researched primary school students' perceptions of reading e-books and found that majority of students still prefer to read books in print format. Although study participants are aware of many advantages of e-books such as easy access to e-books any time at any place, easy text retrieval, links inside the text to other sources and making notes they state that they found reading from screen tiring and have difficulties in focusing on book contents. Milovic (2012) investigated the use of various e-resources from the library webpage and found that teachers and students rarely use online resources. Also, many school librarians do not track e-resource usage and had no clue whether these resources were used or not. In the Hong Kong context there is a study by Ip, Chu and Sit (2008) that explored primary school students' reading habits of e-books and its correlation with their reading habits of printed books. Authors found that students who read more printed books also tend to read more e-books.

RESEARCH QUESTIONS

The main goal of this research is to explore school library programs in primary and secondary schools in Croatia and Hong Kong in order to find out how these programs meet the educational roles of school libraries and support students' learning.

To achieve these research goals the following research questions are formulated:

- RQ1. What library programs are performed by school libraries in Croatia and Hong Kong and do these programs extend students' learning beyond the library walls?
- RQ2. Are these programs performed solely by librarians or in collaboration with other school members such as teachers, IT staff, parents etc.?
- RQ3. Are there differences in school library programs between school libraries in Croatia and Hong Kong?

METHODS

This qualitative study is aiming to explore library programs ran by schools in Croatia and Hong Kong. First we conducted an interview for data collection. Purposive sampling technic was applied and participating schools were selected. Interviews were conducted with school librarians from five schools on each location. Sample sizes are small, which is typical for qualitative research.

The Hong Kong sample includes three secondary schools (one bilingual private school with the IB curriculum, one international schools with the IB curriculum and one local school following the Hong Kong curriculum), and two primary schools (one small Christian school with the British curriculum and one bilingual private school following the IB curriculum). Croatian sample consists of three secondary

schools (two gymnasiums and one school with five different streams) and two primary schools. Schools from Croatia all follow the Croatian school curriculum.

Collected data were analyzed by applying thematic analysis (Braun and Clarke, 2006). Interesting features of the data were systematically coded across the entire data set and major themes were defined. Finally, all data were arranged under broader themes in a way that all data belonging to the specific theme were brought together.

This empirical research has been conducted on two geographical locations: Croatia and Hong Kong and the research team consisted of researchers from both locations. Researchers from Croatia and from Hong Kong communicated regularly through email and Skype.

The limitation of this study is that, due to its small sample, its research findings and conclusions cannot be readily generalized to a wider population of school libraries in Croatia and Hong Kong. On the other hand the findings may be very helpful to researchers in developing quantitative studies on larger samples that would secure generalizability of results and extend the knowledge of school library programs.

DATA ANALYSIS AND DISCUSSION

School library programs in Croatia and Hong Kong are mainly focused on two major educational tasks. One task is enhancing students' general literacy and developing reading habits, whereas the other task is developing students information literacy and research abilities. Before starting the analysis of the collected empirical data it would be important to point out to some differences between Croatia and Hong Kong regarding the school educational system that may influence the library programs. While in Hong Kong the primary school lasts six years, in Croatia it takes eight years of education. Furthermore, children in Hong Kong start primary school at the age of six in local schools and at the age of five in international schools, while in Croatia children enter primary school at the age of seven. Secondary schools in Croatia last four years and enroll student at the age of 15 while in Hong Kong secondary school takes six years (local schools) or seven years (international IB schools) and students' enrollment age is around eleven. Therefore, school library programs in Croatia have to cover a longer time period for primary schools and a shorter period for secondary schools.

Although library programs for primary and secondary schools, both in Croatia and Hong Kong, may have some similar components they still differ significantly and for this reason they will be analyzed and discussed separately.

Reading Support Programs

Empirical data about reading programs in primary schools in Croatia and Hong Kong were organized in four sub-themes (Tables 1 & 2). The first sub-theme involves regular reading support activities and the second is about special events. In the third theme the Croatian and Hong Kong schools slightly differ as local empirical data influenced the defining of sub-themes. For Croatian primary school libraries the third theme is participation in reading projects while for Hong Kong primary schools it is about contests related to books and reading. Findings show that primary schools in Croatia and Hong Kong promote reading through suggested readings, book displays and various reading activities. Schools in Hong Kong are subscribed to some reading and storytelling platforms and actively promote them in library sessions. School librarians on both locations organize, sometimes in collaboration with teachers, some special school-wide events such as invited talks by children's authors and some special reading activities. Hong Kong primary school librarians organize *Book-week* once a year, a week-long whole school engagement in reading and many reading-related activities.

Table 1. Reading programs in primary school libraries in Croatia

Regular reading support activities

- Book displays, posters about books and authors, **book quizzes**, reading aloud and reading together: forgotten books, under the stars, my teacher's favorite book, **reading to first graders**

Special reading events

- Book study – reading in costumes, watching movies, workshops
- **Bookmark exchange project (in collaboration with geography teacher)**
- Invited talks: writers, poets, illustrators
- Workshops for parents about library and reading
- **Visits to the local public library**

Participating in reading projects on the state level

- ***Reading backpack*** – a traveling backpack with 8 books for the whole family
- *Party with letters* – overnight with reading activities (7 pm – 7 am)
- *Reach for the stars with reading* - reading contest - 3 books read and quizzes
- *Book night* –celebration of the *World Book and Copyright Day* – activities involving libraries, bookshops, publishers, museums and theaters, etc.

Reading support on the library webpage

- Picture-books in Croatian and English
- E-books - prescribed and free readings
- *International Children's Digital Library*

Note: Some reading activities above are performed in collaboration with teachers

The third sub-theme is particularly interesting for both the Croatian and Hong Kong primary school libraries. Listed activities point to collaboration among primary school librarians in organizing and running those events. Croatian school librarians encourage students to actively participate in various reading projects organized by local library associations such as ***Reading backpack***, *Party with letters* and *Reach for the stars with reading*. They also take students to various programs during the *Book night*, the event co-organized by various organizations dealing with books, reading and literature. These projects are often run in collaboration with school teachers. For school librarians in Hong Kong the dominant activity in this sub-theme is the inter-school competition *Hong Kong Battle of the Book* which involves a year-long preparation for students with reading and weekly practice activities.

Table 2. Reading programs in primary school libraries in Hong Kong

Regular reading support activities

- Book displays, reading lists, book talks, reading aloud (by librarians, teachers & parents volunteers)
- Guiding students how to use e-platforms for reading and storytelling
 - *Tumble Books* – a storytelling website with quizzes, activities, lesson plans
 - *Follett* e-books collection
- Teaching literary genres – planned in collaboration with teachers
- Ordering guided reading books in collaboration with English coordinator
- Book-club - older students help organizing reading activities and games

Special reading events

- Authors and storytellers school visits
- Book week – reading activities: Drop-everything-and-read, book character day, guess who is reading, etc.
- **Bookmark exchange project**

Contests related to books and reading

- *Hong Kong Battle of the Book* - inter-school reading contest – students read 20 books and

compete in teams of 5 (answer questions about the books)

- Book trailer contests - students make book trailer in iMovie
- Reading champions - students who borrowed the most books in a month

Reading support on the library webpage:

- E-books and storytelling platforms: *Tumblebooks*, *Follet* e-books
- E-books from HKPL, free e-books from the Internet (English & Chinese)
- Audible books
- *Book Adventure* - reading program (book quizzes and reading progress tracking)
- Reading support websites: *Bookhive*, *Kidsreads*, *Boys Blokes Books*, *Kids Book Review*, *RIF Kids Reading Planet*
- Learning tools for digital poetry writing and digital storytelling

Note: Some reading activities above are planned in collaboration with teachers

The fourth sub-theme is the reading support online. Primary school librarians in Croatia and Hong Kong encourage students' reading by posting various reading materials on the school library webpage. Croatian school librarians provide some online reading resources, like a selection of e-books for free reading and prescribed reading, digital picture books in Croatian and English and access to International Children's Digital Library (*ICDL*). School librarians from Hong Kong offer rich collections of various electronic reading materials, some subscription-based and many available for free from the Internet. Besides many e-books, there are various educational websites where students can learn about children's literature. There is also a well known *Book Adventure* reading program with book quizzes, reading tracking system and prizes. It can be concluded that Croatian primary school librarians use information technology in their reading programs a little less than librarians in Hong Kong primary schools. This finding is not a surprise since studies from Croatia indicate that technology and e-resources are not very popular among students and teachers (Milovcic, 2012; Udina, 2014; Milicki and Sudarevic, 2016) while a study from Hong Kong (Ip, Chu and Sit, 2008) finds that e-books are well accepted among primary school students. It is interesting that Jones and Brown (2011) also found that book theme, characters and preferences of readers were far more important to young readers than the format in which the book was delivered. In view of the collaboration between school librarians and teachers it can be concluded that primary school librarians in Croatia and Hong Kong have a good collaboration with teachers in running school library reading programs and activities.

Study findings about reading programs in secondary schools in Croatia and Hong Kong show that school librarians on both locations are highly engaged in promoting reading to students and organize various reading related activities inside the library, school-wide and outside their schools (Table 3 & 4). Empirical data are organized in three major subthemes: Regular activities inside the library, Special events and activities and Reading support on the library webpage. Reading programs in secondary school libraries in Croatia differ in all three sub-themes. Regular activities inside the library for Croatian school librarians include book displays, lists with suggested readings, invited talks, movie watch, workshops, reading and library clubs and reading sessions. Besides program activities inside the school Croatian secondary school librarians, often in collaboration with teachers, organize some special events and activities. They organize group visits to other libraries and various cultural organizations, bring students to talks or shared reading sessions in local public library and encourage students to take part in various events related to books and reading taking place in their local environments. Croatian secondary school librarians also run some community projects, like visiting local home for elderly for reading aloud together and collecting books for donations.

Table 3. Reading programs in secondary school libraries in Croatia

Regular activities inside the library

- Reading lists (including popular science books), students' wish lists, lists of new arrivals with annotations, book displays - authors, themes, important dates and events, (in

collaboration with teachers)

- Invited talks and round tables with writers, actors, scientists, other experts
- Watching movies based on novels
- Workshops (collaboration with teachers and other organizations): 3-D printing, book repair, Glagolitic calligraphy and silk painting
- Clubs and reading sessions
 - Reading club – monthly reads;
 - Library club – book repair
 - Reading aloud together (e.g. Croatian poetry)

Special events and activities - group activities outside the library (often in collaboration with teachers):

- Visits to public, national and university libraries, museums, archive, historical and cultural memorial places, exhibitions, book fairs
- Attending talks in the local public library (e.g. *What is Jazz? Studying in USA*)
- Reading aloud together (students, teachers, others) in the local public library
- Active participation in book and reading events (city or state level):
 - *Book noises* –in collaboration with National and University Library
 - *Inter-liber-book fair* - round table and workshops for students
 - *Croatian Book Month* - includes various literary activities
 - *Book night* –celebration of the *World Book and Copyright Day* –organized by libraries, bookshops, publishers, museums, theatres, etc.
- Community projects:
 - **visiting the local home for elderly and reading aloud**
 - collecting books for donations

Reading support on the library webpage:

- E-books
- ICDL
- Audio books
- Croatian writers

Secondary school librarians in Hong Kong also run various regular reading programs inside a library and school-wide, such as creating various reading and resource lists, arranging book displays and promoting awarded books. Furthermore, they encourage students' reading by using borrowing tracking system and electronic reading program with quizzes. In collaboration with school librarians in other secondary schools in Hong Kong they organize voting for Hong Kong librarians' literary award.

Special events and activities include the *Book-week* which is rich with various activities for students including inviting famous authors, scientists and other interesting speakers to give talks. They also organize in-school and inter-school reading competitions which engage students through the whole school-year, again in collaboration with school librarians from other schools in Hong Kong.

Table 4. Reading programs in secondary school libraries in Hong Kong

Regular activities inside the library

- Reading lists (Chinese and English books), resource lists on various teaching topics, book displays in the library and in OPAC, promoting awarded books from Carnegie Medals, ALA award, Man Booker Prize & Nobel Prize
- Voting for book awards - *Hong Kong Golden Dragon Book Awards* – in collaboration with school librarians in HK
- In-house book borrow tracking system: tracks borrowing, includes various activities and

awards of merits for students

- Managing *Accelerated Reader* – online reading monitoring program with quizzes

Special events and activities

- *Book-week* (in collaboration with teachers): hosting a book fair, DEAR time, Book character dress-up day, authors' visits, etc.
- Organizing school visits by famous writers, academics etc.
- Attending events at *Hong Kong International Literary Festival*
- In-school reading contest - The Battle of the Book (involves weekly practices)
- Inter-school reading contests (collaboration with school librarians in HK)
 - *Hong Kong Battle of the Books* - competing with schools in HK
 - *Kids Lit Quiz*

Reading support on the library webpage:

- E-books (subscription based and free from the Internet)
- E-book collections from the *Hong Kong Public Libraries*
- Reading based social networking tools: *GoodReads*, *Pinterest*

Regarding the support of reading through digital collections, findings show that secondary school librarians in Croatia and Hong Kong provide online access to e-book collections. School librarians from Hong Kong also use electronic tools to promote books and reading to their students, a reading stimulation program *Accelerated Reader* and some reading dedicated social networking tools, such as *GoodReads* and *Pinterest*.

Although reading programs in secondary school libraries from Croatia and from Hong Kong have some similarities they also differ, particularly in activities spread out to the wider community. While secondary school librarians from Hong Kong focus more on reading itself and collaborate in some programs with other school librarians, Croatian school librarians extend their reading programs to various cultural events and connect with the local community. This extended perspective on reading and related activities of school librarians from Croatia is probably influenced by norms for school libraries prescribed by Croatian Ministry of Education which defines the roles of school libraries as educational, professional and cultural (Zakon o Knjižnicama, 2009). Anyway, the study findings confirm that a collaboration with teachers, other librarians and specialists from various cultural organizations is an important component in library programs realization for school librarians both in Croatia and Hong Kong (Tables 3 & 4). To summarize, the findings about reading programs for both primary and secondary schools, in Hong Kong and in Croatia indicate that school librarians pay great attention to reading promotion and provide a wide span of activities to engage students in reading more. This observation coheres with the results from empirical studies about the various roles of school librarians in Croatia and Hong Kong (Lo et al., 2014b; Zorica and Dukic, 2016). Further, it can be concluded that Croatian and Hong Kong school librarians widely extend school library reading programs outside the school walls.

Library Instruction Programs

Research findings about library instruction programs indicate that primary school libraries from Croatia and Hong Kong contribute to the development of students' information literacy (Table 5 & 6). Data are coded under four sub-themes: Library guidance and instruction, Other instructional activities, Instructional materials on *Moodle* and Collaboration with teachers.

Librarians from Croatia and Hong Kong provide library orientation, instruct students how to search library OPAC and how to find resources in the school library. While primary school librarians from Croatia cover the use of various information sources (reference, periodicals and the Internet) and copyright issues, Hong Kong librarians teach the whole research process by using the Big6 model. Hong Kong librarians pay special attention to information retrieval of electronic resources.

Table 5. Library instruction in primary schools in Croatia

Library guidance and instruction:

- Library orientation (students and teachers)
- Searching OPAC and locating resources in the library
- How books are made: from writing to publishing
- How to use encyclopedia, dictionary, Internet, periodicals
- What is copyright

Other instructional activities

- Workshops on using digital tools:
 - Creating picture books and cartoons: *Photostory, Storybird*
- Entrepreneurship – learning about the concept, attending the workshop for making pocket diaries, making pocket diaries in school and selling them at the school Christmas fair
- Financial literacy – lessons by university students in Economics
- Civil education - volunteering and team work
 - **Visiting local homes for elderly – reading to elderly**
 - **Visiting hospitals – reading to sick children**
- Bible lessons

Instructional materials on *Moodle*

- types of libraries
- how to find information

Collaboration with teachers

- Share ideas how to include school library to curriculum
- Lists of readings for teachers' professional development
- Support teachers' lessons with guidance in using library resources
- Strong support by school principle, good collaboration with teachers

Primary school librarians in Croatia organize some other instructional activities with students such as workshops on creative use of various digital tools, lessons on financial literacy (in collaboration with university students of Economics), entrepreneurship, and civil education. Primary school librarians from Hong Kong run workshops for parents and train students as library helpers. Hong Kong librarians use the school *Moodle* platform for library instruction more extensively than school librarians in Croatia. Regarding the collaboration with teachers study findings show that primary school librarians both in Croatia and Hong Kong provide library instruction by working together with school teachers. School librarians also support teaching and learning in other ways (Table 5 & 6).

Table 6. Library instruction in primary schools in Hong Kong

Library guidance and instruction

- Library orientation (students and teachers)
- Searching OPAC and locating resources in the library
- Retrieving electronic resources
- Big6 research skills: 6 stages in the research process
- Citation and referencing
- Literary genres and author study (to support class teaching)

Other instructional activities

- Workshop for parents
- Training students library helpers: *Circulation Officer, Shelf Elf (shelving duty)*

Instructional materials on *Moodle*

- All English library lessons
- Bibliographic tools
- Guidance for using search engines
- Media reviews
- Resources for parents: how to use OPAC, notes from library talks, how to encourage reading

Collaboration with teachers

- Suggest resources for teaching
- Plan and teach library lessons with teachers
- Collaborate only with some teachers

It can be concluded that primary school libraries on both locations provide significant input to students' learning beyond library walls. While school librarians in Hong Kong are more focused on the research processes Croatian school librarians are more open to other instructional areas and spread their collaboration to people and organizations outside their school.

Instructional activities focused on developing students' information literacy and research ability in secondary school libraries in Croatia and Hong Kong are organized in five sub-themes: Library orientation, Information literacy topics, Other instructional activities, Tutorials on school library webpage (or Moodle) and Collaboration with teachers (Table 7 & 8). School libraries on both locations provide library orientation for new students and teachers. The information literacy topics covered in library lessons conducted by Croatian and Hong Kong secondary school librarians differ slightly, as librarians from Hong Kong base their instruction on the Big6 research skills scheme and focus more on electronic resources retrieval and evaluation. This aspect of information literacy is of great importance for Hong Kong students as they have access to numerous electronic resources either through school's own subscriptions or through Hong Kong Public Libraries. Unfortunately, school libraries in Croatia do not have this privilege and mostly do not have access to electronic databases. Citation and referencing is covered by both Croatian and Hong Kong information literacy programs. Information literacy classes are designed to help students to apply information literacy skills to complete their specific assignments or projects. School librarians in Croatia extend their library instruction to some other topics that may enhance students learning, such as how to create a good presentation, improving students' writing skills, media literacy and civil education.

Table 7. Library instruction in secondary schools in Croatia

Library orientation (for new students and teachers)

- OPAC, collections, services, introducing school library webpage

Information literacy topics

- Use of various sources of information
- Reference collection – encyclopedias, bibliographies, portals
- Periodicals
- Citation and referencing
- Creating presentations (poster, *PowerPoint*)
- Writing skills
- Workshops in collaboration with teachers: exploring topics by using various information sources (e.g. planet earth day, Renaissances)

Other instructional activities:

- media literacy (understanding commercials), civil education

Tutorials on school library webpage:

- Call numbers, classification system
- Citing and referencing
- Safety on the Internet, Netiquette, Facebook privacy

Collaboration with teachers

- Workshops
- Arranging teaching sessions

Secondary school librarians in Hong Kong teach information literacy by using school *Moodle* and by posting various instructional materials on the school library website or on the Moodle platform. School librarians in Croatia put very few instructional materials on the school library webpage. All in all, secondary school librarians in Hong Kong use technologies more extensively for supporting teaching and learning.

Table 8. Library instruction in secondary schools in Hong Kong

Library orientation (for new students and teachers)

- Searching OPAC and location resources in the library (DDC)

Information literacy topics (Teach with *Moodle*):

- Big6 research processes
- Database retrieval
- Evaluation of sources
- Academic honesty and citation

Other activities

- Visits to other organization to listen talks (e.g. local universities)
- Workshops for parents

Tutorials on school library website (Moodle Library page):

- Research skills
- Bibliographic and citation tools
- Databases user guides
- Online students' bulletin - book renewal

Collaboration with teachers

- Design the lessons together with teachers
- Teach in collaboration with Humanities and English teachers

Further, secondary school librarians in Croatia and Hong Kong collaborate with teachers in performing instructional activities. They plan lessons with teachers, sometimes teach together or run thematic workshops for students together but the collaboration depends very much on teachers' schedules and the willingness of individual teachers to collaborate with school librarian. This finding is similar to the results from research on school librarian-teacher collaboration in Croatia (Zorica & Dukic, 2016) and Hong Kong (Lo, et al., 2014b) showing that secondary school teacher librarians only occasionally collaborate with teachers in information literacy instruction.

Table 6. Barriers to organizing library programs in Croatian and Hong Kong schools

Primary school libraries in Croatia	Primary school libraries in Hong Kong
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<p>No barrier</p> <ul style="list-style-type: none"> • Strong support by school principle • Good collaboration with classroom and subject teachers 	<ul style="list-style-type: none"> • Lack of lesson time • School principle doesn't recognize librarian as a teacher • Insufficient professional development • Lack of staff and funds
<p>Secondary school libraries in Croatia</p>	<p>Secondary school libraries in Hong Kong</p>
<ul style="list-style-type: none"> • No timetable for library lessons • No plan & program for library lessons • Library instruction depends on librarians' good will • Lessons are organized by using form tutor's classes, after school, in the evening, classes of subject teachers and open teaching day • Lack of staff and lack of space for big groups' activities 	<ul style="list-style-type: none"> • Lack of scheduled teaching for library instructions • Lack of support from teachers • Lack of staff • Insufficient professional development • Difficult to organize programs by external organization when offered in after school hours

Study participants were asked about the barriers that may block the full implementation of their school library programs in their schools, particularly the instructional components. It is interesting that primary school librarians in Croatia have not mentioned any serious barrier and this finding confirms the result from the study by Zorica and Dukic (2016). For primary school librarians in Hong Kong the major barrier is the lack of scheduled teaching and not being recognized as teachers by the school principal. The lack of scheduled teaching for library instruction is the main obstacle for secondary school librarians both in Croatia and in Hong Kong. School librarians in secondary school struggle to find teaching time in the school busy schedule and have to negotiate with subject teachers to find some teaching slots for library lessons.

CONCLUSIONS AND RECOMMENDATIONS

The findings of this study indicate that school librarians in Croatia and Hong Kong are well aware of educational role of school libraries and that they actively support students' learning through their library programs. These programs are mainly focused on motivating students for reading and on library instruction involving enhancement of students' information literacy and research capabilities.

Reading programs in school libraries in Croatia and Hong Kong are rich with various reading-related activities and are often organized in collaboration with school teachers. Croatian and Hong Kong school librarians collaborate well with other school librarians in their local areas and run together various reading-related projects.

In addition, school librarians in Croatia broaden their reading programs through collaboration with public libraries, museums and many other cultural organizations. School librarians in Hong Kong widely apply information technologies to motivate students' reading and provide access to rich collections of e-books.

Library instruction programs are performed by school librarians on both locations according to their specific circumstances and defined programs. Primary school librarians from Croatia extend their regular information literacy programs to some other useful topics such as entrepreneurship and financial literacy. School librarians in Hong Kong pay significantly more attention to teaching students how to retrieve and access various electronic resources from their rich digital collections.

Many library programs and activities, both in Croatia and Hong Kong, are performed in collaboration with school teachers, although this collaboration is not always on a regular basis and not involving all teachers from the school. School librarians also collaborate with their colleagues in other schools, with public libraries and some other organizations.

For most school librarians a major barrier to running a successful information literacy program is their not being included in the official teaching schedule. This barrier might be overcome to some extent by developing and applying e-learning strategies.

Based on the finding of this study it can be concluded that school librarians, both in Croatia and Hong Kong, provide a significant input to school teaching and learning and that their library programs transcend the library walls and often cross even the school borders.

There are several potential benefits of this study. For school librarians it may be useful to gain insight into library programs and activities performed by school librarians from other countries and get ideas for enhancing their own library programs. For researchers in school librarianship the results of this study may help to plan some further comparative studies on school library programs. Finally, the work on this project was new and valuable experience for researchers from two very distant parts of the world to work together as a virtual team and learn from each other.

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