The Student's Voice on Information Literacy Skills: Using the 2017 AASL Standards Framework for Learners

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The 2017 Standards Framework for Learners designed by the American Association of School Librarians offers educators a support guide for creating, implementing and assessing meaningful, structured learning tasks focused on important information literacy skills for students. In this study, we use the Curate element of the AASL Standards Framework for Learners as a lens to analyse students' voices and experiences while engaged in a Guided Inquiry unit, focusing particularly on their information seeking and use. Findings indicate students have sophisticated understandings of their own information literacy skills, how they engage with information, and the skills needed to be efficient curators of information, but they feel challenged and unconfident about their own skills in completing research tasks. These findings support the role of the school librarian in scaffolding young researchers through this process.

Keywords*: Guided Inquiry, Guided Inquiry Design Process, Standards Framework for Learners, focus groups, information literacy*

Introduction

At the end of 2017 after much consultation and research with key stakeholders including school librarians, students, parents, and administrators, the American Association of School Librarians (AASL) released new standards for school librarians, school libraries, and learners. The *Standards Framework for Learners* replaces the *Standards for the 21st-Century Learner* (AASL, 2007) which replaced the *Information Literacy Standards for Student Learning* (American Library Association & Association for Educational Communications & Technology, 1998). The new 2017 *Standards Framework for Learners* is intended to transform teaching and learning and provide a comprehensive support guide for school librarians to create, implement and assess meaningful, structured learning tasks focused on important information literacy skills for students.

In this study, we use the new *Standards* (AASL, 2017) as a lens to investigate student voices and experiences while engaged in a Guided Inquiry (GI) unit. Using a GI unit was strategic in that this type of inquiry learning is known for promoting self-guided learning and engagement in the research process. This made it a fruitful opportunity to study the information literacy skills identified by students as easy and difficult and to map those skills to the new *Standards* (AASL, 2017).

This paper is part of a larger study which will map the whole of the *Standards Framework for Learners* (AASL, 2017) with data gathered from students in Year 9 studying the Industrial Revolution by GI methods in a secondary school in Australia. Our focus for this paper is on the fourth "Shared Foundation" from the *Standards Framework for Learners*: Curate. The skills described within Curate emphasize important aspects of the research process and information literacy including finding and evaluating different types of resources for identified information needs.

This study used the School Library Impact Measure (SLIM) (Todd, Kuhlthau & Heinstrom, 2005) to design and frame our focus group interviews. SLIM was devised for practitioner use in schools to evaluate student learning and engagement during an inquiry learning project. It has been used by researchers (Garrison, FitzGerald, & Sheerman, in press; Oberg, 2009; Todd, 2011b, 2012a) and school librarians, especially in Australia (Sheerman, 2011, 2013). For the

narrow focus of this paper, we are looking at two questions from the Toolkit, which relate to what students find easy and what they find difficult when they are doing research. The *Information Literacy Standards for Student Learning* (ALA & AECT, 1998) were part of the original analysis of SLIM so it is appropriate to supplement these standards with the updated 2017 *Standards Framework for Learners* recently released by AASL.

Literature Review

These new standards consist of three separate sets of standards for the Learner, School Librarian and School Library reflecting "a comprehensive approach to teaching and learning by demonstrating the connection between learner, school librarian, and school library standards" (AASL, 2017, p. 2). The complete package has been criticised as a highly complex document with confusing jargon and visuals (Loertscher, 2018, p. 39). In each set of standards, six "Shared Foundations" (Inquire, Include, Collaborate, Curate, Explore, Engage) underlie each of the standards and are supported by four "Domains" (Think, Create, Share, and Grow). These "Shared Foundations" are described in Table 1 as they are defined by their "Key Commitments" in the *AASL Standards Framework for Learners* (AASL, 2017, p. 5) available free online.

Table 1. Shared Foundations and Key Commitments

Shared Foundations	Key Commitments
I. Inquire	Build new knowledge by inquiring, thinking critically, identifying problems, and developing strategies for solving problems.
II. Include	Demonstrate an understanding of and commitment to inclusiveness and respect for diversity in the learning community.
III. Collaborate	Work effectively with others to broaden perspectives and work toward common goals.

IV. Curate	Make meaning for oneself and others by collecting, organising, and sharing resources of personal relevance.
V. Explore	Discover and innovate in a growth mindset developed through experience and reflection.
VI. Engage	Demonstrate safe, legal, and ethical creating and sharing of knowledge products independently while engaging in a community of practice and an interconnected world.

A recent review of the *Standards* from experienced school librarian educator David V. Loertscher (2018) notes the strong emphasis on inquiry woven throughout the document. Loertscher (2018) goes on to cite the potential of these *Standards* in supporting the work on inquiry learning completed by Leslie Maniotes (p. 37) and collaborators Carol Kuhlthau, Ann Caspari, and Jannica Heinström. Inquiry learning is of particular interest to us and Loertcher's (2018) review adds support for using the *Standards* for analysis in this study.

Other scholars and researchers have shared reviews of the *Standards.* Rinio (2018) writes about collaboration as one of the shared foundations of the *Standards*, focusing on the importance of the development of trust between the school librarian and teachers, and between school librarians and students, as a prerequisite to successful inquiry learning and reflective practice. Burns (2018) links the *Standards'* focus on reflective practice to the role of the school librarian, emphasising the need for school librarians to involve themselves in evidence-based practice as a core activity in the role. Recent academic studies further suggest that evidence-based practice must become part of a school librarian's repertoire in order to demonstrate contribution to student learning (Gordon 2009a, 2009b; Gordon & Todd 2009; Todd 2011a, 2012a, 2012b).

An element of our data collection and analysis for the current study is the SLIM Toolkit. Todd (2006) used the SLIM Toolkit in a large-scale study investigating how students build their knowledge through inquiry, using Kuhlthau's Information Search Process (ISP). Teacher librarians from ten New Jersey schools participated in GI units and data were collected, using the SLIM Toolkit at initiation, midpoint and conclusion of the inquiry program. This research sought to investigate how school students build on their existing knowledge of a curriculum topic, transform found information into personal knowledge, and how their knowledge of this topic

changes. Todd showed how knowledge changed in amount and structure through the GI, using SLIM analysis methods, as well as rich data about students' information seeking habits. Todd (2011b) supervised a similar study carried out by practitioners in Australian schools demonstrating factors involved in the growth to deep knowledge of students engaged in GI units, as well as rich qualitative data from students on their learning process.

Our present study seeks to replicate use of SLIM in the environment of a changed GI pedagogy, now based on the Guided Inquiry Design (GID) process which has emerged in recent years from the ISP (Kuhlthau, Maniotes & Caspari, 2012, 2015). Academic studies led to practitioner studies, particularly in Australian schools, which combine the emerging theories of GI with the use of SLIM to demonstrate achievement of learning outcomes and the school librarian's role in this, for example, Scheffers (2008) and Sheerman (2011).

Methodology

The setting for the present study was in a K-12 independent school in a suburban community in Australia. Approximately 110 students in four Year 9 History classes studying the Industrial Revolution were invited to participate by the researchers. Twenty-two students from the three highest achieving classes agreed to participate giving us an approximate 20% response rate. These students were asked to complete the same GI unit as the rest of the students and to also participate in a semi-structured focus group interview at the end of the unit to discuss the experience. The students also shared their work from throughout the nine week unit in the third term of 2017 including process journals documenting their research from the beginning to the end, three survey responses from the beginning, middle and end of the unit, and final products marked by their history teachers.

The survey and focus group interview questions were designed in part by SLIM (Todd, Kuhlthau, & Heinström, 2005). Two questions from the SLIM Toolkit used in the interviews explicitly asked: 1)What do you find easy when you do research? and 2)What do you find difficult when you do research? When they first designed SLIM, Todd, Kuhlthau, and Heinström (2005)

recommended using the *Information Literacy Standards for Student Learning* (ALA & AECT, 1998) to analyse the responses to these questions; however, with the introduction of the new *Standards Framework for Learning* in 2017, it is most appropriate to use these updated standards for analysis.

The data presented in this paper primarily include the analysis of the focus group interviews where students discussed important information literacy skills utilised in their research process. To determine these, the researchers performed a content analysis of the focus group transcripts searching for instances where the students identified specific information literacy skills they used or attempted to use during their research. They paid particular attention to the responses to the questions: What do you find easy when you do research? and What do you find difficult when you do research?, but also scanned the entire transcripts. Next, the researchers took this list and mapped the skills noted by the students to the new *Standards Framework for Learners* (AASL, 2017). This was done individually and then collaboratively to find agreement in the different coded instances. Again, the preliminary results presented here focus on the 13 standards within the fourth shared foundation in the framework, Curate, defined as to "make meaning for oneself and others by collecting, organizing, and sharing resources of personal relevance."

Findings

Our findings suggest students have sophisticated understandings of their own information literacy skills, how they engage with information, and the skills needed to be efficient researchers as analysed through the lens of the new *Standards Framework for Learners* (AASL, 2017). The findings in Table 2 show frequency counts for how many times each of the 13 standards within Curate was coded during the focus group interviews as being easy and difficult when engaged in research.

Table 2. Frequency counts for Curate Standards

IV. Domains	Standards	Frequency Counts	
		Easy	**Difficult**
A. Think: Learners act on an information need by:	IV.A.1. Determining the need to gather information.	1	3
	IV.A.2. Identifying possible sources of information.	**13**	**9**
	IV.A.3. Making critical choices about information sources to use.	1	**11**
	Totals for Think Domain	**15**	**23**
B. Create: Learners gather information appropriate for the task by:	IV.B.1. Seeking a variety of sources.	**7**	3
	IV.B.2. Collecting information representing diverse perspectives.	0	1
	IV.B.3. Systematically questioning and assessing the validity and accuracy of information.	2	5
	IV.B.4. Organizing information by priority, topic, or other systematic scheme.	3	**10**
	Totals for Create Domain	**12**	**19**
C. Share: Learners exchange information resources within and beyond their learning community by:	IV.C.1. Accessing and evaluating collaboratively constructed information sites.	0	0
	IV.C.2. Contributing to collaboratively constructed information sites by ethically using and reproducing others' work.	0	0
	IV.C.3. Joining with others to compare and contrast information derived from collaboratively constructed information sites.	0	0
	Totals for Share Domain	**0**	**0**

D. Grow: Learners select and organize information for a variety of audiences by:	IV.D.1. Performing ongoing analysis of and reflection on the quality, usefulness, and accuracy of curated resources.	0	0
	IV.D.2. Integrating and depicting in a conceptual knowledge network their understanding gained from resources.	1	0
	IV.D.3. Openly communicating curation processes for others to use, interpret, and validate.	0	0
	Totals for Grow Domain	**1**	**0**
	Overall Totals for Curate	**28**	**52**

As shown in Table 2, the students noted research as being difficult (52 codes) almost twice as much as being easy (28 codes). The Think domain measured the highest frequencies coded in the focus groups with Create coming in next. The final two domains, Share and Grow, were barely noted at all with only one instance coded from both. The remaining discussion explores how students described what they find easy and difficult with their experiences of research, with specific attention paid to the standards with the highest frequency counts bolded in Table 2.

What do you find easy when doing research?

Only seven of the total thirteen standards were coded at all as being easy to our participants. Reflection from students regarding standard IV.A.1 "Determining the need to gather information" focused around a feeling of confidence before even beginning searching when the topic is a well-known part of the curriculum, such as the Industrial Revolution. Dom commented: "Well in this topic I found just gathering information to be easy because it is such a massive topic, the Industrial Revolution, there is so much on it, so many different things."

An area that the students most notably found easy in their research process was Standard IV.A.2. "Identifying possible sources of information." This standard was coded 13 times in the focus group interviews, the highest of any other standard found to be easy, and accounting for almost half of all of the 28 easy codes. Comments in this area from our students focused on it becoming easier and easier to find information because the internet is growing all the time. Chuck noted, "I

found tons of YouTube videos by like historians on the Industrial Revolution… and there was just heaps more information out there…it's just getting easier each year." Also in this standard, there were comments about reliable sites being more easily identified in well-known areas such as the Industrial Revolution, because the coverage of .gov, .org, and .edu is greater and the Industrial Revolution "is such a big topic that it was just so simple to google stuff and come up with a lot of results" as Jeff41 said.

What do you find difficult when doing research?

The participants identified instances of research being difficult much more frequently than easy. In this section, three of the standards measured high frequency counts in our analysis as bolded in the far right column in Table 2. While Standard IV.A.2 "Identifying possible sources of information" was highly noted as being easy by our participants thirteen times, it also had a high number of frequency counts (nine) in the difficult category. Students' comments here focused on the experience of finding it really hard to find information once a focus is formed and the student is following his/her own particular interest in the topic, a hallmark of GI. This is summed up by Kinsley who noted "There's not like, anything on chimney sweeps!" There was some trepidation about how it is difficult to find information once you have narrowed down to a topic of interest. As Jeff 41 commented, "The broad stuff is easier to find. But it's when you are getting down into the deep stuff that you need to search harder for, that's the hard part." When there is a long essay to write, it was anticipated that it would be difficult to have enough information to write the final essay. As Chuck noted, "For the longer tasks, it's a lot harder to find more information, so it makes it a lot harder to write a report."

Standard IV.A.3. "making critical choices about information sources to use" was almost exclusively identified as being difficult by our students. This was often described in relation to determining primary and secondary sources which was a big part of the research project these participants were engaged, investigating different elements of the Industrial Revolution. Jughead said:

> What's really difficult doing research is, determining the primary and secondary sources because I was having trouble trying to determine because there are not many sources now, like we are so far ahead…and it is hard to determine now and find sources that are actually primary. Then secondary sources are pretty easy to find, it's just that if you're required to find a primary source, it just makes things a bit harder for you.

Mynamajeff's comments about the "grey areas…in terms of the difference between a primary and secondary" sources shows his practice of this standard. Pablo further expands on complexities of using primary sources, as he discusses how while a photograph from the time of the Industrial Revolution could be a good primary source, the description of the photograph may not be original and is thus, a secondary source. Students grappled with this issue of primary and secondary sources across the focus group interviews.

The only standard in the Create domain to measure high frequency counts was standard IV.B.4. "organizing information by priority, topic, or other systematic scheme." In this area, students noted different tasks that they found challenging during the research process. For example, Dinkie said "I have all of my ideas in different places, different documents and stuff, even in Word documents or in One note" which makes it hard to organize. Amy reiterated this in her reflection:

> It gets more difficult … to put it all together. So when you have different bits of information, you have to like make them relate and like when you are writing your end product thing, to get it all to flow… and to integrate it all together.

Organizing the information gathered and synthesising perspectives to create the final product is a challenge for these students.

Implications

The preliminary findings presented here show the new *Standards* in practice through the voice of young researchers. Of particular note is that the participants noted almost twice as many instances of research being difficult than easy. These frequency counts were highest in relation to

making critical choices about information (IV.A.3) and organizing information (IV.B.4). The participants found it relatively easy to identify sources of information but evaluating the sources and using the information were harder tasks for them. These skills of differentiating and assessing sources and devising ways to organize information for specific purposes and needs are important information literacy skills that school librarians teach. They are integral to the role of the school librarian as evidenced by their inclusion in the new *Standards* (AASL, 2017) at all. The Year 9 participants in this study are from a school that uses Guided Inquiry in projects from the elementary to secondary levels- the students are experienced in doing research. However, they still identify challenges in this process which supports the value of a teacher librarian to help guide them.

While we presented some overall themes here across our dataset with what was easy and difficult for the students, there were also interesting divergences among the 22 participants. For example, some students noted that it was "a bit tricky" for them to put the information they had collected from sources into their own words. Dom notes:

> I find putting it into my own words a bit tricky because especially when you are reading from an article that is already worded very well and sometimes when you go to reword it yourself, you find that it is sounding worse than what it was and you have to try to make it sound better and its just hard.

At the same time, Jughead said, "I find it easy putting that information to my own words as well because copying is not something that we look up to really." These two different perspectives give further support for using inquiry learning methods like GI that emphasise independence and let students explore and expand their own interests and abilities. Students like Dom can get individual help from the school librarian or teacher on ways to paraphrase sources while students like Jughead can press ahead with the project.

Limitations

There are some important limitations to this study and analysis that must be taken into account when considering these findings. First, while these students do have experience in inquiry learning and research, they are only in Year 9 (approximately 13-14 years-old) and so still learning and developing confidence to do research. At this level, they are being asked to do more challenging tasks and to use more critical, higher-order thinking skills in their studies. They still need extra support from the school librarian and their teachers to help scaffold their learning and skills to this next level they have now reached at school.

Further, this is just one snapshot of one GI unit and project. Not all projects are going to get at all the standards. This is shown with our finding that the last two domains within Curate, Share and Grow, were noted only once in all of the focus group interviews. This is in spite of the students collaborating on their final products for this unit, creating a newspaper about the Industrial Revolution, and sharing the work with their classmates.

Conclusions

As the new AASL *Standards* were just released in late 2017, this study is timely in understanding how they translate into practice and also how information literacy skills are identified and interpreted by the students learning and practicing them. This initial paper focusing on the ways that students curate information demonstrates that students can articulate fluency and difficulties with information seeking and handling. This analysis is just a beginning look at how the new *Standards* exist in practice and within the voice of young researchers. It is timely to hear the authentic student voice (Australian-flavoured) on curating information and future research will explore this dataset using the lens of the other foundations including Inquire, Include, Collaborate, Explore, and Engage (AASL, 2017).

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