
Professional Standards: A Framework for Distance Learning Instructional Design

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The introductory course in an online distance learning program can provide a solid foundation towards achieving a professional identity. The American Association of School Librarians Standards for Initial Preparation of School Librarians (2010) was used to frame the online course design detailed and evaluated in this paper. Content analysis of course introductions and closing reflections from 401 students over eight semesters of coursework determined that the introductory course was establishing a foundation in accordance with those standards, as well as moving students toward upper levels of Miller's Pyramid. This study clarified the appropriateness of using the AASL Standards as a design framework and Miller's Pyramid as an assessment tool.

Introduction

As pre-service school librarians prepare for an active professional role in the school library, deliberating about the responsibilities of that role is a primary consideration. Pre-service education continues to play an important role in the preparation of school librarians: "library school students require a learning environment where they can put classroom theories into actual employment prior to graduation" (Fingerson, 1973, p. 193). Delivering pre-service education in an online environment can add another layer of complexity to the development of abilities and behaviours that meet the expectations of the profession (Moore, 2007).

In Texas, to become certified as a school librarian requires two years as a PreK-12th grade classroom teacher in a public or accredited private school, a passing score on the state administered certification exam, a master's degree, and the completion of a state approved program in school librarianship. The state-approved, American Library Association (ALA)-accredited School Library Certification program at the University of North Texas (UNT) began online coursework delivery in 1998, initially using the WebCT content management system. The early adoption of distance learning for this graduate program in library and information science was the result of the faculty's decision to provide higher levels of access to larger groups of students.

The state of Texas is geographically large, with a distributed population that cannot easily access the limited number of school library program options provided in urban locations. Additionally, students interested in the program are primarily full-time K-12 school teachers, returning to university to add the certification credential to their existing master's degree or earn a master's degree in library and information science with school library certification. Accessing a certification program that is delivered online eliminates the constraints of geographical distance and provides an opportunity for student time management of coursework.

Online coursework provides complete school library program requirements in a flexible manner that includes asynchronous lessons or lectures, discussion forums, weekly live chats with the instructor, individual assignments, and small group or independent projects. Over time, the university migrated distance learning to its current Blackboard Learn platform. As the content

management system evolved into a platform for delivering coursework, so did the structure of online content, methods for delivery, and standards for the school library profession. Technology was integrated into instructional design, and emphasis on collaborative learning, authentic learning experiences, and the application of theory to practice became central themes for the school library certification program. The course that is the subject of this article is a component of this ALA-accredited degree program and serves as the initial course for the UNT school librarianship certification program. The course aligns with the standards, mission statement, and goals of the American Association of School Librarians (AASL).

The foundational idea of school librarianship as distinct from but complementary to teaching within the school learning community has gained prominence with the evolution of the profession. As a result, the first course in the sequence of nine required courses is perceived by instructors as essential to establishing the orientation to the role of the school librarian and was designed for pre-service school librarians. While the first course was always intended to provide an introduction to school librarianship, it was initially designed to orient students to online coursework and the range of resources available to school librarians.

In 2014 the introductory course was extensively revised using the Standards for Initial Preparation of School Librarians (ALA & AASL, 2010) as the framework for the content and the five areas of professional practice to highlight the essential roles that school librarians fulfill. As stated by ALA & AASL (2010), these standards “apply to all master’s programs that prepare candidates to develop and manage library and information services in a PreK-12 setting, regardless of degree name or professional title” (p. 1).

A mentor program was introduced in 2002 to encourage a Community of Practice (CoP) that provides students with the opportunity to regularly communicate with experienced practitioners and colleagues during the learning process (Lave & Wenger, 1998). The mentoring program has continued to evolve. Students are given the opportunity to observe, learn, and demonstrate professional standards and behavior through a relationship with a practicing school library mentor who is selected during the introductory course in the school library program. The mentor continues to work with the student throughout their coursework to provide practical application of what is learned.

Subsequent coursework moves the students through course content designed to equip students with an ability to analyze and interpret key professional concepts, perform while being observed, understand and exhibit behaviors consistent with the school library profession, and demonstrate knowledge and activities that adhere to the professional values, behaviors, and attitudes needed to establish a professional identity of school librarianship. Moving students through this continuum of development depends on establishing a strong foundation in the introductory course. The current study was designed to assess the success of this first course in orienting incoming school library certification students to their new professional role and providing a solid foundation for understanding the professional norms, theories, and behaviors of school librarianship.

Research Questions

Given the urgency of determining whether the introductory course was meeting its goals, the following questions guided the research:

1. What reasons did pre-service school librarians enrolled in an introductory course for school librarians identify for wanting to be school librarians?
2. What school librarian roles, as defined by the Standards for Initial Preparation of School Librarians (ALA & AASL, 2010), did pre-service school librarians enrolled in an introductory course for school librarians identify prior to receiving school librarianship training?

3. What were pre-service school librarians' personal perceptions of their professional competence—when analyzed using Miller's Pyramid—after completing an introductory course for school librarians?

Literature Review

Introducing Teachers to School Librarianship

School librarians are teachers that complete duties that include teaching multiple literacy skills to students, providing professional development for their colleagues, serving as information experts in schools, curating educational resources, developing programming to foster literacy and life-long learning skills, and managing school libraries.

In Texas, school librarians are required to have experience as teachers before earning their school library certification. Having experience as a teacher is beneficial to pre-service school librarians because the experience helps them to understand school communities and what it means to teach students. This teaching experience, however, can become a constraint if the teacher is unable to transition from the classroom environment to the school library environment (Mardis, 2007). This is because the environments differ in scope and intent.

The difference that can be the most challenging is adjusting to serving a whole school community instead of catering to an isolated classroom. School librarians are responsible for interacting with every student and school stakeholder. These stakeholders include, but are not limited, to staff, faculty, administrators, parents, businesses, and community organizations. Understanding the needs of these stakeholders is essential to fulfilling the school librarian roles and can be considered a dimension of conceptual orientation for the profession.

The introductory course was designed to introduce students to such intricacies of the school librarianship profession as the scope of stakeholder needs and expectations alongside the essential professional roles. While a variety of standards from education and library and information science (LIS) professional organizations could be used to guide school librarians in performing their multifaceted roles and inform the curricula of school librarian preparation programs (Church, Dickinson & Everhart, 2012), the Standards for Initial Preparation of School Librarians (ALA & AASL, 2010) were selected to guide the UNT education of future school librarians. Using these as the framework for the course content, five areas of professional practice exemplify the essential roles school librarians fulfill to holistically create and administer library services in PreK-12 environments, as shown in Table 1.

Table 1 . ALA/AASL Standards for Initial Preparation of School Librarians (2010)

Standard	Title	Detail
1	Teaching for Learning	Candidates are effective teachers who demonstrate knowledge of learners and learning and who model and promote collaborative planning, instruction in multiple literacies, and inquiry-based learning, enabling members of the learning community to become effective users and creators of ideas and information. Candidates design and implement instruction that engages students' interests and develops their ability to inquire, think critically, gain and share knowledge.
2	Literacy and Reading	Candidates promote reading for learning, personal growth, and enjoyment. Candidates are aware of major trends in children's and young adult literature and select reading materials in multiple formats to support reading for information, reading for pleasure, and reading for lifelong learning. Candidates use a variety of strategies to reinforce classroom reading instruction to address the diverse needs and interests of all readers.
3	Information and Knowledge	Candidates model and promote ethical, equitable access to and use of physical, digital, and virtual collections of resources. Candidates demonstrate knowledge of a variety of information sources and services that support the needs of the diverse learning community. Candidates demonstrate the use of a variety of research strategies to generate knowledge to improve practice.
4	Advocacy and Leadership	Candidates advocate for dynamic school library programs and positive learning environments that focus on student learning and achievement by collaborating and connecting with teachers, administrators, librarians, and the community. Candidates are committed to continuous learning and professional growth and lead professional development activities for other educators. Candidates provide leadership by articulating ways in which school libraries contribute to student achievement.
5	Program Management and Administration	Candidates plan, develop, implement, and evaluate school library programs, resources, and services in support of the mission of the library program within the school according to the ethics and principles of library science, education, management, and administration.

Each of the five standards headlines one of seven course modules. The first module is an introduction to online learning at UNT and the Blackboard System. Within this module students are asked to make a Welcome post, providing them the opportunity to know a little about each other and find things they have in common, like why they want to be a school librarian.

Each of the next five modules—designed to correlate with the professional standards and presented in the same order as listed in Table 1—focuses on a foundational aspect of the preparation standards. Students are provided with readings, asked to post thoughtful responses about a variety of discussion questions, assigned article critiques to stimulate interaction, and required to complete assignments that include a variety of technology applications. The final and seventh module is designed to provide a course wrap-up that culminates in an assigned reflection on what they have learned. Student feedback is used to update the course, improve instructions, and provide a means to assess whether course objectives and learning outcomes are being met. The remaining courses in the school librarianship program are designed to cover the standards in more depth.

Miller's Pyramid as a Conceptual Framework

Assessing competency in pre-service LIS education has been traditionally focused on learning outcomes (Nwakanma, 2011), passing rates on mandatory examinations for school librarians, or school librarian employment rates (Small, et. al., 2012). For this study, Miller's (1990) Pyramid provides a fresh conceptual framework. It has previously been used to explore actual behavior since "this model implies knowledge and skills underlying actual competent behaviour" (Timmons & Glas, 2010, p. 49). The pyramid has its foundation in medical education and was designed to provide a framework for assessing the competence of medical students and professionals.

Miller's original pyramid consists of four levels: Knows, Knows How, Shows How, and Does. The "Knows" level serves as the base of the pyramid. This level represents the knowledge or what a student or professional needs to understand to fulfill professional duties. On this level, a student or professional will have an understanding of theories, which can be measured by objective tests. Next, is the "Knows How" level. Students and professionals that achieve this level will understand how to use the knowledge they have acquired to analyze and interpret information. An essay that requires a student to assess a situation and use theory to determine the best-practices for solving a problem is an example of an assessment for the "Knows How" level. The third level is "Shows How," requiring learners to perform a task. Simulations are often used as a form of assessment. Miller's final level is "Does." While other levels of the pyramid may place learners in an artificial environment, this level requires active engagement in the professional environment. Direct observation, videos of learners performing tasks, and portfolios are often used as assessments.

The pyramid is an attractive model for assessing competence because it is problem-based and deploys workplace-based learning (Liu, 2012). Problem-based learning is essential to many professions, such as teaching, because examinations cannot fully assess how a student will react when placed in a situation that requires the application of theory. This education model is learner centered and requires students to actively engage in activities to demonstrate knowledge.

While Miller is celebrated for developing a platform for designing problem-based learning courses and curriculums in medical education, the framework is not without criticism. For example, Al-Eraky and Marei (2016) argue that the pyramid falls short by examining what a student knows and does, not who the student is.

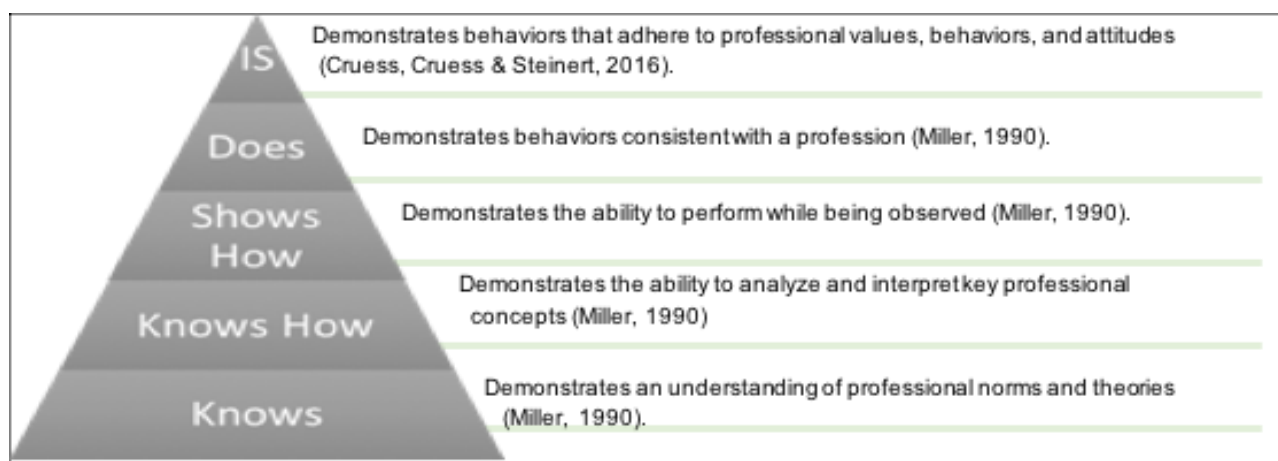


Figure 1. A model of the modified version of Miller's Pyramid with the "Is" level. Adapted from Cruess, Cruess, & Steinert (2016) and Miller (1990).

Al-Eraky and Marei further assert that, "Assessment of professionalism should extend beyond observable behaviours to explore the individual's underlying attitudes, values, and beliefs that drive (un)professional behaviours" (p. 1255). They recommend the addition of a fifth level to the pyramid that was proposed by Cruess, Cruess, and Steinert (2016) and is aptly called the "Is" level. At this level, the formation of the professional identity is assessed. Figure 1 shows a modified version of Miller's Pyramid with Cruess, Cruess, and Steinert's "Is" level.

Applying Miller's Pyramid to the Course Assignments

Research focusing on Miller's Pyramid in the LIS field is limited. After an extensive search, the researchers identified one study that applied the pyramid to the field of librarianship. Timmers and Glas (2010) sought to "develop an instrument to measure the information-seeking behaviors of

undergraduate students” (p. 46). When developing the instrument, they chose to focus on the top layer or “Does” level of the pyramid because it referred to the skills of a competent individual. The information seeking behaviors related to the Association of College & Research Libraries (ACRL) standards were used to assess competency. Timmers and Glas (2010) concluded that scales like theirs can be effective for higher, secondary, and primary education. These settings are relevant to school librarians that often must be educated through universities, collaborate with academic librarians, and teach in various K-12 settings.

Confirming the skills that school librarians have learned during each course is an essential part of safeguarding the future of the LIS profession and the education of students that school librarians teach. Because perceptions of the need for school librarians, the need for libraries in general, and the roles that school librarians engage in are frequently challenged or misunderstood (Mardis, 2013; McCracken, 2001; Shannon, 2012), it is especially important to provide a rigorous program that emphasizes professional competency in theory and in practice. As such, students that are enrolled in the UNT school librarianship program are challenged with objective assessments and problem-based learning. Each student that completes the program must submit an e-portfolio comprised a variety of assessments that include, but are not limited to, essays, videos illustrating interactions with students, and evidence of activities completed with a mentor. The e-portfolio for the program is introduced in the introductory class discussed in this article.

Although the course is designed to address prefatory concepts, it is important to assess whether student perceptions of the content coincide with the instructors’ perceptions of the content that is delivered. Numerous assessments were incorporated during the course revision.

In his rationale for developing the pyramid, Miller (1990) remarked that there is not a single assessment that can be used to completely evaluate the competency of a medical professional. The same is true of educators. Given the criticisms of the pyramid (Al-Eraky & Marei, 2016; Cruess, Cruess, & Steinert, 2016), the researchers acknowledge that this analysis of the course based on the assignments and the students’ comments about what they have learned serves as a “starting point” for a more rigorous analysis.

A preliminary examination of the course content reveals that the assignments, assessments, and discussions match multiple levels of Miller’s Pyramid. Examples of Miller’s (1990) Pyramid levels—with Cruess, Cruess, and Steinert’s (2016) modification—in relation to the standards are displayed in Table 2.

Table 2. Examples of modified Miller’s Pyramid activities categorized by course assignment activities. Adapted from Cruess, Cruess, & Steinert (2016)

Miller’s Pyramid Level	AASL Preparation Standard	Examples of Assignment Activities
Knows	Standards 1–5	Defines terms relevant to information professionals.
Knows How	Standards 3 & 5	Uses knowledge of intellectual freedom resources during a discussion to identify ways to ensure equitable access.
Shows How	Standards 4 & 5	Creates a video for school stakeholders that proposes & explains activities, programs, or practices to implement in a school library to support learning.
Does	Standards 1 & 2	Teaches a class of students under the supervision of a mentor.
Is	Standards 1–5	Creates an e-portfolio with videos in a school setting that demonstrate an understanding of professional values, behaviors, and attitudes.

An assessment of the course content reveals that this introductory course should establish a strong foundation of professional understanding within the “Knows” and “Knows How” levels. The learning outcomes for students should reflect knowledge of what they need to understand to fulfill

the school librarian professional duties. Students should have an understanding of theories that can be measured by the objective assessments included in the course to demonstrate what they “know.” Students should also achieve the “Knows How” level by understanding how to use the knowledge they have acquired to analyze and interpret information. Article critiques and assignments, such as developing an infographic and preparing a presentation for the school teaching community, require each student to assess a situation and use theory to determine the best-practices for solving the problem. Evidence of reaching these levels of competence was necessary to determine if the course was meeting its goals of orienting incoming school library certification students to their new professional role and providing a solid foundation for understanding the professional norms, theories, and behaviors of school librarianship.

Methods

Population

The participants of this study were UNT students enrolled in the introductory school librarianship course. The course was completed by 401 (95%) of 420 students over eight semesters from Fall 2014 to Summer 2017. Of those completing the course, 375 were female and 26 were male; 389 reside in Texas; 128 have fewer than seven years of experience as a teacher; 115 have taught seven to 13 years; and 55 have been in the classroom more than 13 years.

Data Collection

The researchers sought to identify the school library certification students’ reasons for becoming school librarians, to evaluate their initial understanding of the roles of school librarians, and to assess their perceptions of competence following the program’s introductory course. To accomplish these tasks, a content analysis of course introductory welcome postings and reflection assignments from eight consecutive semesters was performed. Quantitative and qualitative content analysis findings of student responses are presented in this paper.

Student responses, along with the students’ introductory posts and demographics, were collected by semester into separate spreadsheets. In texts referenced below, pseudonyms are followed by a superscript number denoting their teaching expertise: less than seven years as 1, seven to 13 years as two, and more than 13 years as three.

The initial purpose of the discussion posts was not as a basis for research. The posts were requested to assess the students’ reasons for wanting to be school librarians and to determine their understanding and opinions about the course content at the end of the course. Upon reviewing the course, it was determined that an analysis of the student responses could add to the corpus of research regarding the education of school librarians. Therefore, the analysis of this data can be defined as secondary analysis, meaning it was existing data collected for another purpose (University of California Irvine Office of Research, 2018). Many of the responses collected are from students that are no longer enrolled in the program. An Institution Review Board (IRB) application was submitted to ensure that proper reporting protocols were followed.

Data Analysis

The analysis of the research questions constituted the need for using two coding schemes—one for the introduction and another for the course reflection posts because the students were asked different sets of questions for each post. After reviewing Miller’s Pyramid, the researchers determined that using this model to analyze the introductory posts would not yield adequate data because students complete the introductory post prior to any content being taught. Moreover,

researchers sought to understand the students' responses after completing the course in relation to their understanding of the profession and how their growth in knowledge related to implementing what they have learned according to the levels in Miller's Pyramid.

Introductory posts. Research Questions 1 and 2 were answered using the students' responses to the introductory post, which requested the following information: your city and state or city and country of residence; where you work and what you do; if you currently teach, and if so, how long have you been teaching; what subjects do you teach and what age groups are your students; why you joined the UNT school librarian program; why you want to be a school librarian; and one interesting thing about yourself. They were also asked to optionally include a picture of themselves so there could be a visual connection to the student name.

Quantitative (i.e., manifest) content analysis data (e.g., about students' awareness of the AASL roles) was kept for each semester, and then aggregated for eight semesters. Text was critically reviewed and analyzed line-by-line for the Fall 2014 semester by one investigator who identified words explicitly used (e.g., "message ideas") to indicate that the student has a sense of what the role of the school librarian involves and also what motivated them to pursue the additional education required to become a professional school librarian. In 2000, McKenzie and Murphy (as cited in Hew & Cheung, 2003) described this unit of analysis as the discrete ideas or narrative relating to a specific topic. Therefore, direct quotes surrounding terms related to teaching; literacy and reading; information and knowledge; advocacy and leadership; and program management and administration were collected as data to demonstrate knowledge and interest in school librarianship. Code terms were proposed to a second investigator, and coding syntaxes were reviewed by both investigators until consensus was reached. The investigators divided the remaining semesters and coded them according to the 13 units of analysis terms shown in Table 3. Discrepancies in coding were discussed during a conversation between two researchers until resolved. Frequencies were calculated using Microsoft Excel.

Course reflection posts. Research Question 3 was answered using the course reflection post responses. Students' answers to the following five questions were analyzed for indications of what he/she knows, knows how, shows how, and does as a school librarian:

1. How has the course affected your view of school librarianship?
2. Was the course effective in providing an orientation to school librarianship with expectations for the role of the school librarian?
3. What was the most challenging assignment, and why?
4. Do you have any suggestions for strengthening this course?
5. You are welcome to provide any additional comments on the course.

Miller's Pyramid was used as a coding scheme for assessing student perceptions of professional competence, establishing a standard of coding results that lessened the influence of coders' judgment patterns. Text was critically reviewed and analyzed line-by-line by one researcher to identify words explicitly used (e.g., "message ideas") to indicate that the student knows about their responsibility to perform one of five AASL essential roles introduced in the course learning modules. Direct quotes surrounding terms related to teaching; literacy and reading; information and knowledge; advocacy and leadership; and program management and administration were collected as data to demonstrate competence. Coding syntaxes were reviewed by both investigators until consensus was reached. Qualitative (i.e., latent) content analysis data was collected to provide rich, thick descriptions of students' perceptions of personal professional competence and course effectiveness (Potter & Levine-Donnerstein, 1999).

Findings

Research Question 1: What reasons did pre-service school librarians enrolled in an introductory course for school librarians, identify for wanting to be school librarians?

The 13 coding themes (See Table 3) developed by the researchers were applied to all student introductory entries. Figure 2 presents the results of the coding.

Table 3. Coding Terms for the Introductory Assignment

Term	Description
Advocacy	Indicates a willingness to advocate on behalf of the library to meet student needs
Collaboration	Expresses interest in working with teachers to co-teach and/or support the curriculum
Environment	Identifies the library learning environment as a welcoming, safe and nurturing place for students, teachers and the community.
Leadership	Expresses a willingness to lead by example
Lifelong Learning	Expresses a participant's personal focus on the development of skills throughout the continuum of one's life
Multiple Literacies	Indicates an understanding that there are many types of literacy
Organizing Information	Expresses a preference for placing information into systems for further accessibility, either in groups or individually
Personal Good Fit	Expresses the belief that they are well suited to become a school librarian
Reading	Expresses the love of books, reading and teaching reading
Research	Identifies a preference for teaching or engaging in scientific and scholarly inquiry
Student Personal Growth	Expresses an interest and commitment to student personal development through learning and participating in projects
Teaching	Expresses an interest in continuing to teach in the school library
Technology	Identifies an interest in using technology and integrating technology into instruction

Results indicate that a majority of incoming pre-service students (68%) articulate a love of reading and “promote reading for learning, personal growth, and enjoyment” (ALA & AASL, 2010, p. 6). Comments supporting this view include:

I think being a librarian will be a great way to encourage students to read, learn, and become life-long learners. (Student8³, Summer 2016)

and

After teaching at a low performing Title 1 school, I also see a need for librarians who are willing to look at the curriculum and help the teachers build more successful lessons and units of study through literature. (Student20², Fall 2015)

Seeing the role and professional life of a school librarian as a good fit for their skills and interests was identified by 178 (44%) of students. These students stated that they had been dreaming of being a librarian all their lives, grew to believe this after talking with other school librarians and experiencing the difference a school librarian did (or did not) make in their school experience, and assessing their own skill sets as a good match for the school library. They indicate that they are “teachers who demonstrate knowledge of learners and learning” (ALA & AASL, 2010, p. 1) As an example:

I have always been drawn to libraries, of all kinds, and think school librarianship will be the perfect blend of my personal interests and educational/professional experience. (Student4², Fall 2014)

Viewing the school library as a welcoming, safe, and nurturing environment ranked third in the occurrences of entries related to why students wanted to become a school librarian, with 143 (36%) students identifying the library environment as a motivating factor. For example:

I think I spent more time in my school library than I did in class. The library was a safe haven for me, and it helped me to develop my love for reading and gathering information. (Student48³, Spring 2015)

As Figure 2 shows, the remaining coding terms and concepts were mentioned by less than 20% of students reporting.

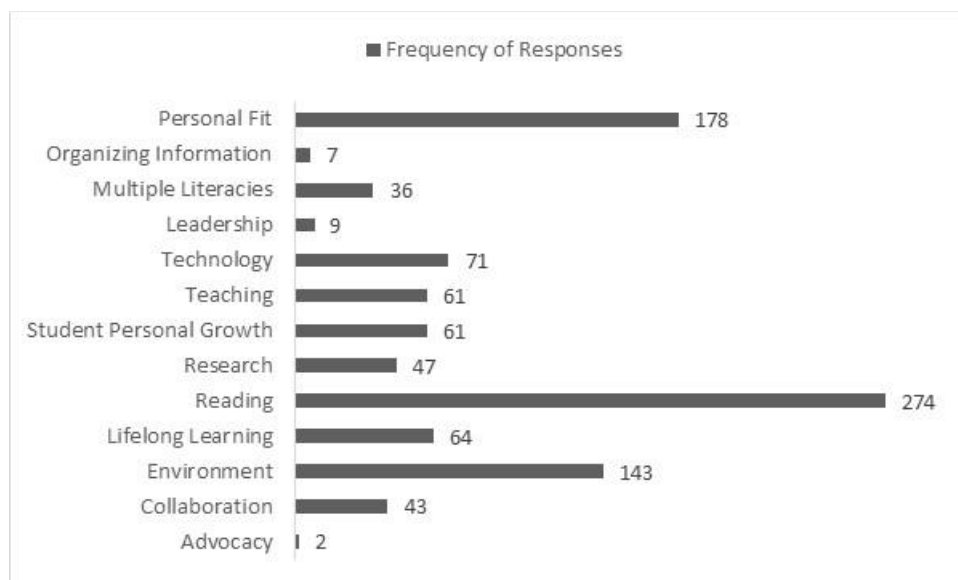


Figure 2. Coding terms and responses

Among the results that were reported the least were advocacy, leadership, and organizing information.

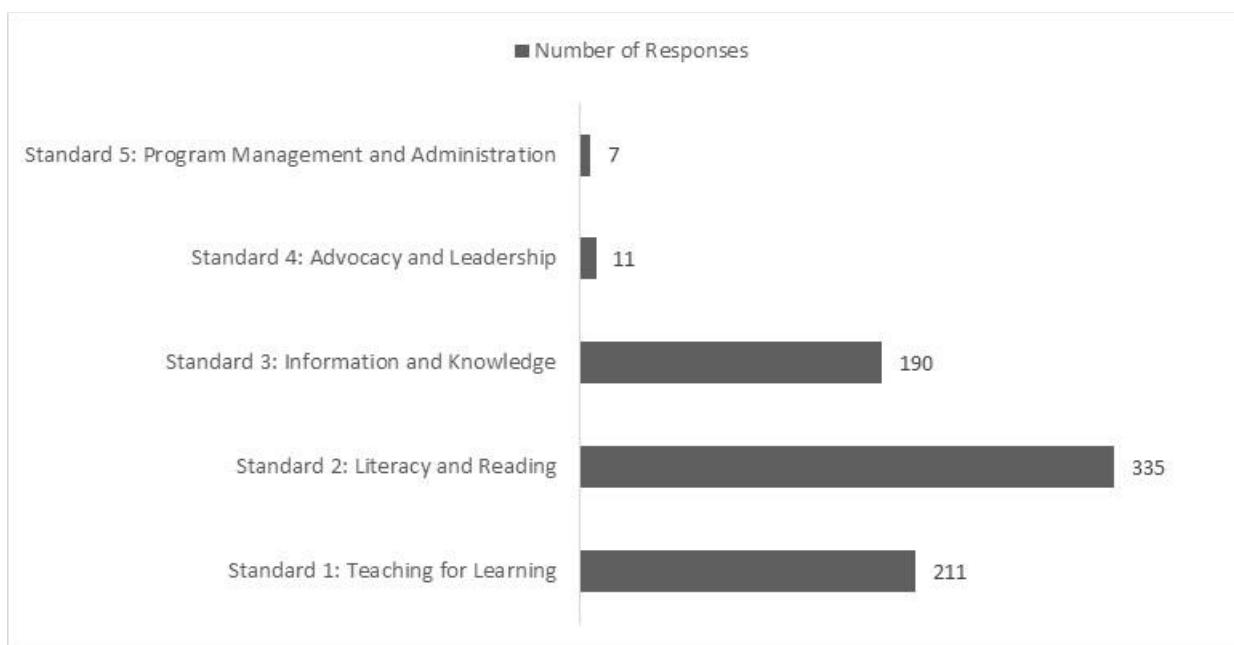
Research Question 2: What school librarian roles, as defined by the Standards for Initial Preparation of School Librarians (ALA & AASL, 2010), did pre-service school librarians enrolled in an introductory course for school librarians identify prior to receiving school librarianship training?

The reasons for wanting to become a school librarian were compared to the roles in the Standards for Initial Preparation of School Librarians (ALA & AASL, 2010). Each theme in Table 1 that was related to a role depicted in the standards was recoded into the standard that represents the role, as shown in Table 4.

Table 4. Responses Categorized by Standards

Standard Number	Standard Title	Coded Reasons for Wanting to be a School Librarian
1	Teaching for Learning	Collaboration Technology Teaching Multiple Literacies
2	Literacy and Reading	Reading Student Personal Growth
3	Information and Knowledge	Environment Research
4	Advocacy and Leadership	Advocacy Leadership
5	Program Management and Administration	Organizing Information Program Management

Responses based on personality traits (lifelong learning and personal fit) were removed because they did not coincide with the roles of school librarians. The analysis revealed that 7 (1.75%) of the students were interested in program administration and management and 11 (2.74%) championed the advocacy and leadership role. Most responses focused on reading and literacy (335 or 83.54%), teaching and learning (211 or 52.61%), and information and knowledge (190 or 47.38%), as depicted in Figure 3.

**Figure 3. Responses per preparation standard**

Research Question 3: What were pre-service school librarians' personal perceptions of their professional competence—using Miller's Pyramid as a lens for analysis—after completing an introductory course for school librarians?

The four levels of Miller's Pyramid and five Standards for Initial Preparation of School Librarians (ALA & AASL, 2010) served as the framework for text analysis. The "Is" level proposed by Cruess, Cruess, and Steinert (2016) was not included, primarily because students are not expected to have formed a professional identity in an introductory course. They are, however, expected to have that professional identity framed so that subsequent coursework and the practical experience under a mentor's guidance can provide the knowledge and experience to fully develop their professional values, behaviors, and attitudes. Findings are reported below.

Student Knows. Because the course is an introduction for students entering the master's program in school librarianship, the chief aim was ensuring that students know about the various roles of a school librarian. An aggregated quantitative content analysis of all text data indicated that after taking the introductory course, more than 95% of students indicated that they now had a comprehensive overview of school librarianship that involved more than they initially realized, and 67% of students indicated they know about the essential roles for a school librarian by referencing one or more of the five ALA/AASL standards in their course reflection. Overall, 20% of students used the phrase "my eyes have been opened" or "I now know/understand."

There is a lot more to being a librarian than I realized. Prior to this class my view of the role of a librarian was a manager of books. A few times a year, I also saw librarians plan literacy events at schools. The librarian also taught some lessons to supplement what teachers taught in the classroom. Other than that there were not additional roles I was aware of. I now know that is not the case at all. The role of the librarian is much more involved. I now know that a librarian is literacy leader, technology go-to for trouble shooting and instructional integration, advocate for patrons and their rights, learning coach are roles I was not familiar with before this class (Student13³, Fall 2014)

and

With some of the assignments, I also realized I had some biases and stereotypical views that I have to learn to change so that I can be a librarian that meets the criteria. (Student8², Spring 2015)

Student Knows How. Discussion board posts and quizzes/assessments were designed for the student to demonstrate their knowledge about a role.

I have rarely viewed myself as a leader, despite having been in leadership roles in the past, and am feeling much more confident in my leadership abilities after taking this course. I also had not considered the role of advocate and am excited to explore the many sides of librarianship further throughout my studies (Student29¹, Fall 2014)

and

After reading numerous articles, I have come to the realization that I will have to be an advocate for my role as the librarian...Becoming a teacher-librarian and working outside of the walls of the library, excites me. I didn't know that this was something that librarians were able to do. (Student3², Spring 2015)

Student Shows How. Activity assignments were designed for the students to utilize new technologies, with both individual and group projects to demonstrate their ability to perform a specific role.

This course has definitely provided me with a solid foundation of what I should expect as a school librarian. I am now able to speak with some understanding of the roles and responsibilities. For instance, I interviewed for a position and conducted myself well enough, better than I would have if I had not taken this course. (Student16², Spring 2015)

Student Does. Some students had opportunities to perform their role as part of their current position in a library or as a colleague in education. Student narratives reported their professional activities.

The assignment of introducing ourselves at an “open house” situation was actually something I will implement at a faculty meeting. I enjoyed both the interview assignments also. It was good to sit down with the principal and high school librarian and get their perspective on my role as the school librarian. (Student36³, Spring 2015)

Discussion and Conclusion

Assessing the introductory comments of pre-service students entering the first course of the school library program of coursework for Research Question 1 provided an opportunity to gauge students' preliminary perceptions of school librarianship. The results for Research Question 1 indicate that most of the participants were drawn to school librarianship because of a love of reading. This is a positive response because reading is a foundational subject (ALA & AASL, 2010). On the contrary, the perception that school librarians are the “keepers of books” or are only in elementary schools for story time must be counteracted with school librarians that take a holistic approach to enhancing the school community.

Many (n=178) of the participants of this study felt that the school library was a good personal fit for them and that the environment was pleasant (n=143). Current school librarians that love their jobs will assert that it is one of the best jobs on earth with a calming atmosphere. Notably, the calm environment can hide the work and dedication required to truly fulfill the roles of the school librarian outlined in the standards. Therefore, it is important to create courses with theory-based, hands-on experiences, such as the course described in this paper. These experiences can assist pre-service school librarians with determining if school librarianship is a personal fit for them.

By examining the school librarian roles defined in the preparation standards (ALA & AASL, 2010) for Research Question 2, the researchers were able to determine which roles were more abstract to the participants. It is not a surprise that the participants gravitate more to Standard 2: Literacy and Reading because libraries are logically associated with books. Even though some teachers may assume that the library will alleviate them from teaching duties, Standard 1: Teaching for Learning was the second ranked role.

The roles that were identified the least by the participants were Standard 4: Advocacy and Leadership and Standard 5: Program Management and Administration. These roles are essential for modern school librarians. For example, school librarians need to be strong advocates for their school communities and programs. This is a leadership role that must be assumed to effectively run a program that has adequate resources. The introductory course can be strengthened in this area, as a result of this feedback. While subsequent school library program coursework at UNT will address this role specifically, appreciating its importance from the beginning is essential. Pre-service school librarians need to understand that the ability to administer and advocate for a library program, while teaching research skills, collaborating with colleagues, and fostering a love for life-long learning, are not optional competencies. Being a school librarian requires a skill set beyond those required to be a classroom teacher (Mardis, 2007).

Analyzing student responses to the types of questions presented in this study early in a course semester can assist school librarianship educators with remediating misunderstandings about school librarian responsibilities. For example, current school librarians can be guest lecturers to explain their roles. Discussions and hands-on activities can be adapted for student needs.

For Research Question 3, assessing the reflection post submitted at the conclusion of the course provided a means to weigh the impact of the course content on student perceptions of the school library profession and conclude that the course was being successful in meeting its objectives.

Students provided positive comments about the course, course structure, and the enlightening, informative aspects of the roles of the school librarian. For one student, completing the course and gaining an appreciation of the scope of the school library profession was revealing:

The course helped me realize that school librarianship is most likely not for me. This is not a reflection of the class but rather a reflection of myself and the profession. This class saved me from another misfit career. (Student18, Fall, 2016)

In the course reflection, students commented on the framework of the course:

I enjoyed how the modules went by the AASL standards and ensured that what I learned would translate to how a librarian should be. (Student14², Fall 2015)

At this juncture, students often referenced advocacy and leadership as an essential role for school librarians:

Looking back, I'm almost amazed by the change in my viewpoint and understanding of exactly what school librarianship entails. I came into this class appreciating the research and collection development aspect of librarianship but have come away with a deepened respect for the role. My primary surprise was in the area of advocacy. (Student36², Spring 2016)

This was a good indication that perceptions of the profession had shifted, as 68% of students (n=274) identified with the role of literacy and reading when they introduced themselves in their course welcome post. Students often remarked on the assignments and how they were practical, yet challenging. The comfort level with technology increased from the beginning of the course to the end for many students. Most importantly, students expressed themselves with enthusiasm and excitement about the profession.

In reviewing student reflections, it was evident that the course was mainly achieving its goal of shifting perceptions and laying a foundation for future school library program coursework. And, it was evident that framing the course with modules aligned to the five *Standards for Initial Preparation of School Librarians* (ALA & AASL, 2010) was successful in raising awareness not only of the expectations of the school librarian's roles, but in developing the language associated with those standards and roles. The standards-based assignments facilitated a realistic understanding of how to implement the tasks that are required to fulfill the duties associated with the standards. By conducting an assessment of pre-course and post-course perceptions in terms of the ALA & AASL, 2010 standards, we have taken an important step toward using standards as a "professional tool for objective assessment based on recognized measure of performance" (Texas State Library and Archives Commission, 2005).

Limitations and Future Work

The course's welcome post comments by students in response to the question of "why do you want to be a school librarian" has been used in this research as an expression of student motivation and prior knowledge of school librarianship because of the rich descriptions provided by students. To fully assess prior knowledge and motivation, a structured survey would be appropriate and better able to provide a complete assessment. Regardless, the introductory comments have provided a good basis for insight into reasons why students are attracted to the school library profession. Students' perceptions of competency were interpreted from unstructured, organic narratives rather than as responses to questions that were designed to more easily correlate with Miller's Pyramid.

Although the course reflection questions were initially designed to gain insights for course improvement, the insights that students provided into their changing perceptions of the role of the school librarian demonstrated a significant impact from the course content, online, and personal contact experiences. Future course evaluations will be structured to measure student competence of AASL professional practice as the student progress through the program, beginning with this introductory course and ending with his or her practicum. Questions that correlate directly to the levels in Miller's Pyramid and the five standards for initial preparation of school librarians will be added to the course reflection questions. Responses will continue to be used to revise course content and instruction. The use of Miller's Pyramid will continue as an assessment tool to provide assessment benchmarks as the school library program courses progress. Responses from the introductory course will be used as the benchmark of students' knowledge of essential roles as each cohort acclimates to their new profession as school librarians.

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