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Building Bridges for Student Success

Cindy A. Gruwell, St. Cloud State University Library

Like many academic libraries across the country, the St. Cloud State University (SCSU) library instruction (LI) program is in a state of flux as faculty librarians responsible for library instruction address and assess the changing nature of instruction in academic libraries. While the emphasis of basic library instruction focuses on first-year students who are completing their initial course work, the instruction needed for upper-division, writing-intensive, and subject-specific courses/programs requires different and more thoughtful attention. The varied information literacy (IL) skills needed for academic research are especially heightened for nursing students, who, as future health professionals, may be part of health care teams making life-and-death medical decisions. With an increased emphasis on evidence-based nursing practice (EBNP) that serves to enhance clinical decisions and methods, library instruction for nursing students has evolved from the simple "I need to find a scholarly journal article," to evidentiary findings that inform and serve as the basis for decision making in clinics, hospitals, and other health-related facilities.

As library instruction has grown into a more interactive, student-centered learning experience, so have the information literacy standards put forth by the Association of College & Research Libraries (ACRL). In October of 2013, the ACRL Board of Directors approved the "Information Literacy Competency Standards for Nursing." These standards describe the information literacy skills needed for students and practicing nurses who are continuously developing lifelong skills in the workplace and through continuing education. At its core the standards set the stage for librarians and nursing faculty to develop a curriculum that informs and advances the skills needed to understand and utilize evidence-based practices (ACRL, 2014). These skills







include the ability to find and use evidence (research), best practices, and personal expertise to provide the best nursing care available. In order to meet this challenge, library and nursing faculty work together to instruct, support, and encourage nursing students to frame nursing practice questions into a clinical format that describes the *patient*, the *intervention*, an optional *comparison*, and ultimately the desired *outcome* (PICO) format and in turn seek answers that reflect the "best" information/evidence available.

Now, only two years later ACRL has approved a Framework for Information Literacy for Higher Education (ACRL, 2015), which updates and provides new and innovative approaches to the construct of IL in higher education. This Framework will eventually coalesce with the original ACRL "Information Literacy Competency Standards for Higher Education," published in 2000. The introduction of the new Framework in combination with the nursing information literacy standards provides academic and health sciences librarians with a robust schema to build bridges for teaching and reinforcing students' IL skills. Unlike the previously published standards, the Framework promotes and expands upon threshold concepts (e.g., Information Creation as a Process, Research as Inquiry) that reflect various aspects of metaliteracy. All in all, advances in the delivery of library instruction, innovations in pedagogy, and authentic student experiences have the potential to add new dimensions to the traditional components of information literacy, thus prompting a dynamic shift that will expand to include information, visual, technology, and other literacies.

BACKGROUND

The library instruction program at SCSU has two focuses, one being the typical library instruction directed at first-year students during their liberal education course work and the second, a mix of subject-specific, writing-intensive, and graduate courses. While these instruction sessions vary in content, the overall delivery of library instruction is based on the original ACRL information literacy standards, which focus on finding, evaluating, and using information to answer questions and support research. Most importantly, the delivery of library instruction is often a reflection of the working relationships librarians have developed with teaching faculty across campus. These diverse partnerships provide the basis for customized instruction sessions, course guides, and tutorials that meet the varying research needs of SCSU students as they progress through their academic programs. The Department of Nursing Science, in particular, recognizes the need for information literacy to be embedded within appropriate classes in order to ensure that their







students are prepared to continue learning beyond their university education. Ultimately, students need to have a clear understanding of how to use the research process to utilize best practices and evidence-based nursing practice skills when they enter the nursing profession.

Established in 2001 with its first cohort graduating in 2004, the nursing science program at SCSU is a fairly new and growing discipline. During the early years of the program, all nursing students were required to take IM 204 Research Strategies, a three-credit information literacy course as a prerequisite for acceptance into the nursing program. This course laid the foundation for the informatics and nursing research courses, which focus on in-depth research and exploration/application of EBNP scheduled during the students' second and fourth years in the program. However, in 2011 the program underwent substantial curriculum changes in order to meet the Minnesota State Legislature's mandate that all four-year degrees be conferred with a minimum of 120 credits. At that time the nursing program required 135 credits and in order to meet the new requirement, courses not considered essential were eliminated and several others had their credits reduced. Though the value of this course was recognized, IM 204 was a casualty of the curriculum revision.

The elimination of the information literacy course had a considerable impact on student preparation and understanding of the research process. While students participated in library instruction during the required English and other liberal education courses in their first and second years at the university, the depth of their research skills pales in comparison to the intensity of learning that former students received. Because of these changes in the nursing curriculum, library instruction has become even more critical to student success as they perform research and begin to apply their information literacy skills in clinical and other relevant settings. With the elimination of the IM 204 course, library instruction would need to bridge the information literacy gap that existed between liberal education classes and the more intense thirdand fourth-year nursing informatics and research courses. In order to address this void, the librarian liaison and nursing faculty met and identified appropriate content and resources needed for the required assignments and research papers. The instruction and resources for these courses share some similarities; however, there are substantial differences, which is evident in the course descriptions. Nursing Informatics focuses on technology and information at the beginning nurse level, while the Research in Nursing Practice course emphasizes basic research concepts and the application of evidence-based practice in health care environments. Both may use databases such as CI-NAHL, PubMed, and Scopus; however, the research course requires a more experienced student with an advanced skill set.







In the past, instruction sessions concentrated on generating research questions presented in the PICO (patient-intervention-comparison-outcome) format, a very brief overview of levels of evidence used in evidence-based nursing practice, and health/science database searching. However, the handson element lapsed, and there was only a short amount of time made available for demonstrations of the CINAHL database. One-on-one consultations were offered to bridge the gap on an as-needed basis for additional support, though given the class size, scalability was sometimes an issue. The time had finally come to bridge and rebuild the instruction sessions in order to provide an appropriate amount of support needed for successful completion of the informatics and research courses.

TRANSITION

The information needs of nursing students are aligned with those of clinical medicine. Successful students need to understand and be comfortable with utilizing their knowledge, working with and manipulating data, and honing their ability to seek out information for decision making at patient point of care (Schulte, 2008). This combination of skills is learned in a variety of stages during the student's academic program. Though the Research Strategies course was dropped from the program, the students were still held accountable for learning and understanding the basic research process. This could and would prove to be challenging for many students who, through no fault of their own, lacked the formal preparation enjoyed by recent graduates. In order to bridge this gap, library instruction, subject guides, and the opportunity for one-on-one consultations would be combined to accommodate students regardless of their level of expertise. The restructured approach would include new content that clearly presented the resources and searching skills needed for finding appropriate information and resources for EBNP and informatics competencies.

MOVING TOWARD A LEARNER FOCUS

While the nursing program was undergoing its revision, the informatics and nursing research courses experienced instructor changes that took several semesters to stabilize. Due to the strong relationship with the overall department, contact with the new faculty was easily arranged. A series of meetings ensued, and excitement grew as a new collaborative effort would determine the best steps for reintegrating library instruction within the revised curriculum. During the time that the nursing faculty took to revise the content and delivery







of their courses, the librarian reviewed both the ACRL "Information Literacy Competency Standards for Nursing" and the early draft of the *Framework for Information Literacy for Higher Education*. Though the *Framework* would not be finalized until February 2015, the threshold concepts had the potential to provide a fresh and robust structure for developing library instruction sessions and activities for the upcoming (2013–2014) academic year.

Restructuring the library instruction sessions challenged all parties to work together to develop opportunities to engage and frame a more consistent and relevant student experience through clearly defined learning outcomes. To this end, the ACRL "Information Literacy Competency Standards for Nursing" proved quite helpful by providing realistic and appropriate guidelines. The *Framework*, on the other hand, provided two highly relevant focal points, the first of which, Research as Inquiry, describes and defines the various aspects of research from question(s) to open and thoughtful conclusions and was clearly applicable to the instruction sessions for the nursing research course. The second, Information Creation as a Process, highlights the delivery of information including its value, format, and products, which has serious implications for the use of technology in the informatics course work. As a result of the planning sessions, the nursing faculty and liaison librarian were able to agree on four general outcomes with some slight variations for each course. The nursing informatics course, which precedes the research course, would aim for outcomes that would continue to build their information literacy skills as they

- · identify health sciences databases
- utilize advanced search strategies
- evaluate the quality of information resources

This instruction anticipates the more rigorous outcomes created for the nursing research course, which is taken in the fourth year of the nursing program. Given the nature of the overall course work, students will need to know how to

- use PICO to identify and clarify questions for their research projects
- explore and find information about their topics in appropriate databases
- · recognize levels of evidence
- evaluate and synthesize research from journal articles in order to answer and/or support their PICO/research questions

Discussions and activities in the revised sessions would include identifying and developing research questions, further examining and selecting appropriate health and general science information resources, and building complex search strategies. In addition, there would be a review of the general





principles of evidence-based nursing practice. Additional questions and topics for discussion were anticipated; however, in order to streamline the instruction sessions, those questions/topics would be handled as they became evident during the sessions. Finally, in order to meet the goals of the sessions and allow time for activities in support of the course assignments, a full ninety minutes would be allotted with personal consultations available by appointment at a later time.

Both the nursing informatics and research courses are sizeable, with a steady enrollment of forty-five students. In the past, instruction sessions were delivered in a typical one-shot general lecture and demonstration format, or by splitting the class in two and holding concurrent or consecutive hands-on sessions. However, finding a location where all students would be able to comfortably fit could be quite challenging given the limited seats available in the library instruction classroom. Luckily, a new BYOD (Bring Your Own Device), technology-rich classroom was available. This room is designed to present students with the opportunity to sit in groups where they will be more likely to discuss their topics, seek input from their peers, and assist each other as the class moves through a variety of activities in a learner-centered environment. Each table has two monitors, one of which allows the instructor to share his or her desktop. In addition, there is a desktop computer available at each table and VGA/HDMI cables that students may use to display their work from the iPad minis they receive upon entering the nursing program or, if preferred, their personal laptops.

In order to maximize the students' time, the librarian and nursing faculty agreed to utilize customized worksheets to actively engage students in a learner-centered activity where students could demonstrate their skills and learning. These tools would also address the learning outcomes and help students jump-start the research process. This decision was based on a review of the previous library instruction content and pedagogy. Rather than assume the role of classroom lecturer, a.k.a. talking head, the instructing librarian would be better served to act as a "guide on the side" rather than the traditional role of "sage on the stage" (Kaplowitz, 2012: 8). The focus of library instruction would then shift with students taking the time and opportunity to initiate their research while building their information literacy confidence and skill set.

Several worksheets and online guides were developed to address the unique facets for both the informatics and research instruction sessions. The customized worksheets (see appendixes A and B) target the respective courses and are utilized during instruction sessions to stimulate critical thinking about topics and assist in the drafting of research questions and strategies. In addition, all findings that occur during the sessions are recorded on the worksheets and eventually shared with the nursing instructor. The second set of tools, web-based course guides (see figures 5.1 and 5.2), include informa-







tion resources centered on the topics of each course. The web pages include links to subject-specific resources such as medical dictionaries, encyclopedias, journal databases, and citation guides. There are also links to external resources that address EBNP, consumer health, and career information. These guides are designed to pull together and in a sense package the primary types of information that students use during their courses.

The library instruction session was segmented and delivered in three sections with an emphasis on hands-on activities instead of lecture and demonstration. This structure presented students with the opportunity to work through the handout and search for journal articles without being pressed for time. Each segment focused on steps that supported the course's research project including defining topics, using PICO, developing research questions, and selecting search terms and strategies. The mix of presentation, demonstration, discussion, and hands-on activities ensured that the students' experience would include activities that appealed to "visual, auditory, and kinesthetic learners" (Kaplowitz, 2012: 8), all of which are integral in a learning-centered environment.

WORKING TOWARD ASSESSMENT

The assessment of SCSU's library instruction has been primarily anecdotal. In the past, evaluations were handed out at the end of each instruction session; however, they were considered cursory because there was not enough solid information gathered for true measurement. Fortunately, nursing faculty share comments regarding the quality of their students' research, resources, and ability to understand and interpret EBNP. Currently, the assessment librarian is working with all library instructors to develop a variety of tools that will help assess and quantify the library's instruction program.

One example of this is already in process. During the fall of 2014, nursing faculty requested a modular series of tutorials with accompanying quizzes for their new online RN Baccalaureate Completion Program (RN to BSN). These tutorials would familiarize students with SCSU library resources and services. In consultation with the nursing program coordinator, several ideas were explored that eventually led to the development of five specific modules and quizzes for integration into NURS 414—Role Transition to BSN, the initial course in the program. Each module covers a variety of information and/or resources available through the library. They are as follows:

- 1. The Basics—General Library Information
- 2. Nursing Research: Getting Started
- 3. Finding Print Books, E-books, and Video









Figure 5.1. Course Guide: NURS 308 Nursing Informatics.

RNAO - Best Practice Guidelines R Registered Nurses of Ontario (Canada) Best Practices Guidelines











Figure 5.2. Course Guide: NURS 403 Research in Nursing Practice.







- 4. Locating Journal Articles
- 5. Using Citation Style Guides and RefWorks

Students access the tutorials through D2L Brightspace, the university's learning management system, and are given two weeks to review the content, which includes a mix of text, images, and video. Each module has a five-question quiz that is used to assess whether students have reviewed the material.

While the modules for the tutorial took some time to develop, they were ready and easily placed in the course management system (D2L) in time for the program launch in the spring of 2015. Though early in the first semester of this new program, a quick review of the quizzes reveals that students seem to be well informed about the services available from the library and have a good sense of which resources are most appropriate for the health sciences. Further assessment and revision of the guizzes will allow for better understanding of the students' information literacy skills and prepare them for more complex research. The tutorials will also serve as an essential frame of reference for students in subsequent course work and the research phase of their program. The timing of tutorials' inclusion was very important because it would give the library and librarian the opportunity to make a positive impression and connections with the inaugural cohort. This activity in and of itself assists in furthering the relationship and collaboration between the nursing department and faculty librarians along with the assessment of the students' information literacy skill set.

INTEGRATING THE FRAMEWORK

With the ACRL Board of Directors' approval of the ACRL Framework for Information Literacy for Higher Education in February 2015, information literacy and library instruction enters a new dimension. Such is the case with the library instruction directed at nursing students. While instruction sessions and activities noted in this chapter have changed over time, there is still room for improvement. The current instruction reflects the earliest drafts of the Framework with specific attention given to Research as Inquiry and Information Creation as a Process (ACRL, 2015). These particular frames, along with their knowledge practices and dispositions, cover much of the content and skills needed for evidence-based nursing practice. Questions, evaluation, and organization are but a few of the practices commonly applied to the research process. When coupled with the ability to understand the complexity of questions and methods of research, it becomes evident that the Framework goes well beyond the basic tenets of the research process. Instead, it approaches information literacy in a manner that requires a more in-depth and thought-







ful consideration of both the knowledge and skill sets needed for multiple literacies. In many respects, the library instruction discussed in this chapter is ahead of the game. The focus on EBNP reflects some of the core concepts in the *Framework*. This is demonstrated by the practical application of individual inquiries (clinical questions), which results in engagement in the research process by finding evidence (research), evaluation, and applying the use of this knowledge in the academic and work setting. While the "Information Literacy Competency Standards for Nursing" specifically address the attributes needed for student and professional success, the new *Framework* places IL in context with everyday practice and application. As a result, nursing students actively participate in clinical settings where they utilize their information literacy skills in a variety of ways, including interacting with electronic records, developing and using best practices, and as participants in health care teams.

One of the most important questions moving forward will be how to fully incorporate the ACRL frames into current and existing student learning outcomes. What will information literacy programs look like as competencies and frames are merged? In her article regarding assessment and the new *Framework*, Megan Oakleaf states, "Librarians who design instruction quickly realize that each teaching and assessment event needs to be analyzed in the context of other teaching and assessment activities" (Oakleaf, 2014: 512). Now librarians will be drawing new maps for student learning outcomes and activities based on past and present pedagogy, information literacy competencies, and academic needs. In addition, significant attention will be placed on real-time and extensive assessment studies.

The implications for the overall SCSU information literacy/library instruction program and nursing curriculum are many. The SCSU Library Curriculum and Instruction Advisory Committee is currently developing overarching student learning outcomes (SLOs), which will inform *all* of our library instruction initiatives and credit-bearing courses. These SLOs will then need to be blended with standards for specific disciplines, such as the ACRL "Information Literacy Competency Standards for Nursing" mentioned in this chapter. Fortunately, the recent revision of SCSU's library instruction for the nursing informatics and research courses gives us a good head start.

BUILDING BRIDGES

Successful information literacy instruction and skill building may begin in the library, but it is often dependent on relationships with faculty across all disciplines and programs. The nursing science faculty have always been receptive to having library instruction embedded within their program and cur-





riculum. The value that they place on information literacy and its relationship to research and evidence-based nursing practice is evident by their inclusion of a credit-bearing IL course during the early years of the program. Even though that course is no longer required, the nursing faculty are still committed to having their students build on their research skills acquired during their general education course work. The collaborative nature of the relationship allows library and nursing faculty to work together to achieve common goals. Like many other academic libraries, these relationships are often born out of library liaison programs and/or subject responsibilities. Regardless of how they begin, there are a few things to keep in mind as you explore opportunities to integrate library instruction and information literacy into a college/university curriculum. These include the following:

- Talking to your colleagues. You'll need to understand the current environment, past activities, and suggestions for opportunities.
- Getting to know your students better. You'll impress faculty with a good understanding of their skills and basic information literacy needs.
- Starting slow and listening carefully to departmental and individual faculty. You'll quickly pick up on where they're coming from and where they are going.
- Fostering partnerships and collaborative relationships. It will make it easier to explore ways to enhance or develop new information literacy programs and activities.
- Keeping in mind potential partnerships. Many of the best relationships result in faculty committing to actively integrating information literacy into their course curriculum

CONCLUSION

The manner in which teaching faculty and librarians collaborate is critical to information literacy learning outcomes and student success. The relationship-building experience between the two serves as a positive example of a mutual commitment to build the information literacy skills and competencies of nursing students. The time allotted to customize library instruction is an excellent investment in our students, and as a result, these students will be well prepared to apply their skills and competencies to their course work and eventually their profession.

Now, as learning outcomes are revised and updated to reflect information literacy competencies and the ACRL *Framework for Information Literacy for Higher Education*, librarians have the opportunity to expand and guide student success across all college and university campuses. However, the im-







plications go further than the overarching SLOs that are often developed for library instruction programs. Rather, there is the potential to effect change in both disciplines and courses that address the very specific research needs of our students and the continued preparation for their lifelong learning.

APPENDIX A

NURSING INFORMATICS Finding Resources

y you are interested in:
3.
4.
5,
3.
4.
5.

Search in CINAHL, Health Source: Nursing/Academic, Scopus, or PubMed for appropriate journal articles and note the citation information below:

Article Title:
Author (s):
Journal/Resource:
Volume, issue, page, date:
Annotation:
Article Title:

Author (s):

Journal/Resource:

Volume, issue, page, date: Annotation:

Article Title:

Author (s):

Journal/Resource:

Volume, issue, page, date: Annotation:

Figure 5.3. Nursing Informatics sheet.





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APPENDIX B

NURSING RESEARCH Finding Resources

(P)atient:	(C)omparison:
(I)ntervention:	(O)utcome:
Research Questions:	
1.	
2.	
3.	
Search Terms:	3.
1.	4.
2.	5.
Synonyms or Related Terms:	3.
1.	4.
2.	5.
Search in CINAHL, Health Source: Nursing/Ad	cademic, Scopus, or PubMed for appropriate journal articles and
note the citation information below:	
Article Title:	
Author (s):	
Journal/Resource:	
Volume, issue, page, date:	
Annotation:	
Article Title:	
Author (s):	
Journal/Resource:	
Volume, issue, page, date:	
Annotation:	
Article Title:	
Author (s):	
Journal/Resource:	
Volume, issue, page, date:	
Annotation:	

Figure 5.4. Nursing Research sheet.







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