[ARTICLE]

INTEGRATING AN INFORMATION LITERACY QUIZ INTO THE LEARNING MANAGEMENT SYSTEM

M. Sara Lowe Claremont Colleges Library

Char Booth Claremont Colleges Library

Natalie Tagge Claremont Colleges Library

Sean Stone Claremont Colleges Library

ABSTRACT

The Claremont Colleges Library Instruction Services Department developed a quiz that could be integrated into the consortial learning management software to accompany a local online, open-source information literacy tutorial. The quiz is integrated into individual course pages, allowing students to receive a grade for completion and improving faculty and student buy-in. Piloted in nine first-year classes in Fall 2012 then revised and launched in Spring 2013, the quiz has given the library valuable assessment data on first-year student information literacy skills and enhanced the ability of teaching librarians to tailor their instruction to student performance.

INTRODUCTION

Information literacy (IL) instruction at Claremont Colleges Library (CCL) has evolved to include online components for students to be completed outside of class time to enhance and economize traditional, in-class instruction in a "blended" model. In order to enhance pedagogical effectiveness of a local web-based IL tutorial and to assess student IL skills in first-year seminar courses, in Summer 2012 the CCL Instruction Services Department developed a quiz module within Sakai, the consortial learning management system (LMS), that could be integrated into individual course sites (see Appendix). The quiz was built on work begun in the Summer of 2011, when the Library's Instruction Services team adapted an open-source "Start Your Research" (SYR) tutorial, originally developed by the University of California Irvine Libraries (Palmer, Booth, & Friedman, 2012), for use by the CCL. Although the tutorial contained mini selfassessments, it did not provide the ability to record scores, provide proof of completion, or feed into a student's course grade, and was therefore difficult to assign within formal class settings. Developing a quiz in which students could receive credit for completion was vitally important to enhance both the utility and adoption of the tutorial within course settings.

By providing an LMS-connected means of assessing student IL skills, a number of pedagogical, learning, and assessment goals have been achieved through course-integration of the tutorial and quiz module: faculty are able to gain insight into student research skills, librarians are able to determine a baseline of students' abilities in order to tailor instruction to their needs, and students receive a self-paced online learning opportunity that reinforces in-class IL

instruction. In addition, because the quiz module is managed by librarians within individual LMS course sites, it provides a valuable basis for IL assessment by allowing for the collection of data on student competencies at an entry level.

BACKGROUND

The Claremont Colleges consist of seven contiguous institutions: five undergraduate colleges (Claremont McKenna College, Harvey Mudd College, Pitzer College, Pomona College, and Scripps College) and two graduate schools (Claremont Graduate University and Keck Graduate Institute). The combined FTE of the seven colleges is approximately 7,000. Over the past two years, CCL has expanded its base of programmatic IL instruction from three to five of the undergraduate institutions' firstyear seminars (specifically: FHS/FWS at Claremont McKenna; HSA 10 at Harvey Mudd; FYS at Pitzer; ID1 at Pomona; Writing 50 at Scripps). Syllabi and learning outcomes are unique within the first-year programs, making it difficult for librarians to uniformly assess student competencies. The ongoing increase in instruction load and depth of customized instruction required each seminar regularly taxes teaching librarians; developing a tutorial and quiz that could help maximize librarians' impact on student learning as well as provide assessment data was vitally important to the library's educational objectives. Multiple studies have shown that online instruction is often as effective as in-person instruction (Silver & Nickel, 2007), and as a result, the CCL was confident in moving in this direction.

LITERATURE REVIEW

As noted, the CCL developed an online research tutorial aimed at teaching IL skills

in a course-related or course-independent context. The literature on the use of tutorials with quizzes is robust, however, it is lacking in studies that have course-integrated quizzes that are easily assessable.

Many library IL tutorials described in the literature lack course-based assessment or integration within the campus LMS. Some are stand-alone in that they are not integrated into individual courses or oneshot sessions (Lindsay, Cummings, Johnson, & Scales, 2006; Tronstad, Phillips, Garcia, & Harlow, 2009). Some are course specific, created for one course and not generalizable to a larger student body (Ganster & Walsh, 2008; Getty, Burd, Burns & Piele, 2000). Others are integrated into a class but do not "live" in the same location as a dedicated course site within the LMS (Armstrong & Georgas 2006; Bracke & Dickstein, 2002; Gustavson, Whitehurst, Hisle, 2011; Kellum, Mark, & Riley-Huff, 2011; Kendall, 2005; Lapidus, Mccord, Mccloskey, & Kostka-Rokos, 2012; Ondrusek, Bonadie-Joseph, Dent, Williams, 2005; Weiner, Pelaez, Chang, & Weiner, 2011). Dennis, Murphey, & Rogers (2011) and Smale & Regalado (2009) both used Blackboard for pre- and post-tests but not in conjunction with an online tutorial. Exceptions are Cook (2002) who utilized Blackboard for the tutorial and Sliver (2007) who used Blackboard for both the tutorial and the quiz/assessments.

Some tutorials are primarily focused on distance or online learning with less information on using a "blended" approach: web tutorials and quizzes for on-campus students (Betty, 2008; Kelley, 2012; Lo & Dale, 2009; Skagen et al., 2008; Thornes, 2012). Several tutorials mentioned in the literature are not available for adaptation via open source software and thus are less accessible to libraries with limited resources

(Aydelott, 2007; Burrell & Less, 2005). Many articles discuss the process of creating tutorials or modifying open source products but do not provide data on student use (Bradley & Romane, 2007; Flatley & Jefferson, 2006; Kazakoff-Lane, 2010).

Several library-based tutorial quizzes discussed in the literature lack assessment components (Adebonojo, 2011; Blevins & Besaw, 2011). Exceptions include McClure, Cooke, and Carlin (2011) who assessed the effectiveness of an IL tutorial at Florida Gulf Coast University through student writing samples, and Noe and Bishop (2005) who published three semesters of data of student performance on Auburn's tutorial to gauge both student's and tutorial performance. In some cases, publication occurred before data was available (Anderson & Mitchell, 2012; Aydelott, 2007; Gravett & Gill, 2010; Kimok & Heller-Ross, 2008), making it difficult for libraries to determine whether the tutorials would fit their needs. In others, assessment was intended to gauge the effectiveness or usage of the tutorial or quiz itself and not of student learning (Befus & Byrne, 2011; Betty, 2008; Kelley, 2012). While this is useful for libraries deciding whether to adopt a tutorial or quiz, for libraries attempting to prove their impact on student learning, access to data that can lead to assessment of student learning and library effectiveness is imperative. In his article on plagiarism, Germak (2012) voiced concern of how infrequently web tutorials in a library context provide assessment data.

The CCL project, named Start Your Research Tutorial Sakai Quiz, was conceived and developed to address the above shortcomings. The quiz is typically used in conjunction with in-class library sessions, allowing librarians to tailor instruction to the needs of a particular class

by reinforcing concepts from the tutorial point-of-need information. with integrating the quiz into a given LMS course site and requiring it for a grade or participation credit, faculty increase student motivation to engage with the learning object, and, ostensibly, to retain tutorial concepts and information. The guiz can also be used independent of librarian-led instruction to reinforce tutorial content and allow for assessment of students' IL competencies. These results allow librarians to get a baseline on first-year students' Information Literacy skills and to assess the effectiveness of the tutorial itself.

THE START YOUR RESEARCH TUTORIAL

Adapted from the open-source original created by the UC Irvine Libraries (Palmer, 2012), CCL's "Start Your Research" (SYR) (http://libraries.claremont.edu/ tutorial howto/researchtutorial/begin.html) divided into six modules (Begin Research. Knowledge Cycle, Find Books, Find Articles, Basic Search, Advanced Search), each of which covers a fundamental aspect of IL tailored to the CCL's website, information resources, and other research tools. (A seventh module on citation was added in Summer 2013, after the guiz pilot and launch.) Brief self-assessments are scattered throughout the tutorial, but no evaluative feedback is recorded; hence the developing an ancillary impetus for assessment instrument that could track student comprehension and contribute to a course grade within any class offered through the colleges' learning management system. This was the ideal platform for quiz deployment because every course at the colleges has a course site automatically created even if a faculty member does not normally engage heavily with the LMS. Librarians are given instructor access to

course pages by course instructors within the LMS; the quiz is added through the quiz module, a process that takes less than five minutes. Thus far, instructors have been comfortable adding librarians to course pages. This is due to strong, programmatic collaborations between the library and first year programs that include presentations of instruction options at first-year faculty retreats and meetings between individual faculty and their course librarian to develop customized instruction plans. Benefits of embedding the quiz in the course LMS sites include one-stop-shopping for students (Shank & Dewald, 2003) and legitimizing the library content by integrating it with course content (Getty, 2000, p. 354).

METHODS & FINDINGS

The authors developed a series of 20 quiz questions based on SYR Tutorial content. (The quiz was classified as exempt by the Institutional Review Boards (IRB) of the Claremont Colleges. Documentation is on file with the authors.) Fifteen selected response and five short answer questions were designed to evaluate retention of tutorial content and provide an initial window into student IL competencies (see Appendix). Following initial development and revision of questions, the quiz module was mounted in the colleges' LMS (Sakai) using the tests & guizzes module inside of a dedicated project site. This enabled librarians to import the quiz into any course site within which they had instructor privileges. Two student library employees and the authors tested the final SYR Tutorial and Quiz to identify potential instrument error and determine the average amount of completion time (average tutorial timing was 44 minutes, and quiz timing was 19 minutes).

The quiz was piloted in nine first-year

seminar courses at four of the five undergraduate Claremont Colleges in Fall 2012. One hundred five of 125 students (84%) in these courses completed the assigned quiz. The average score was 74% and the median was 77%. The highest score was 97% and the lowest was 47%. Forty-two percent of students scored an 80% or above on the quiz, while only 7% scored 90% or above. The standard deviation of the scores was 10.4 (see Figure 1).

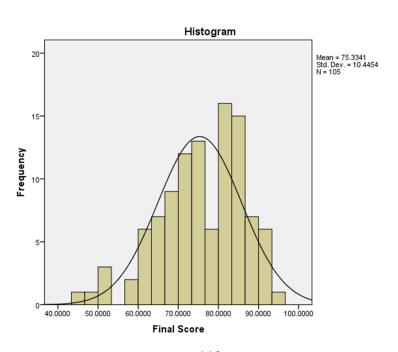
Higher standard deviation and low overall performance rates in the pilot quiz administration are indicative of instrument error as well as cursory quiz completion. Following aggregate analysis of pilot quiz performance, the authors identified five questions with high incorrect response rates and they determined instrument error was at fault; those questions (2, 4, 6, 12, and 13; see Appendix) were significantly revised in the final quiz version.

Pilot results indicated that SYR Quiz

completion rates were lowest in classes where there was unclear communication from the professor and where the quiz was not assigned a grade. Completion rates were highest in classes where there was clear communication from the professor and where the quiz had some bearing on students' grades (in most instances, the quiz was factored into the participation grade).

Following instrument error corrections and librarian training on Sakai Quiz integration by the authors, the revised quiz was launched in Spring 2013 at the fifth undergraduate Claremont College. There were a total of 11 sections of the first-year seminar in question, 10 of which received IL instruction. Of the 10 sections receiving library instruction, eight participated in and assigned the SYR Tutorial and Quiz. The tutorial and quiz was taken by 72% of total classes and 80% of classes receiving library instruction. There were 147 students in the eight sections, 115 of whom completed the quiz, a 78% completion rate. The SYR

FIGURE 1 – FIRST ROUND RESULTS



Tutorial and Quiz counted toward the course participation portion of students' grades, or as extra credit in four of the eight sections that assigned it.

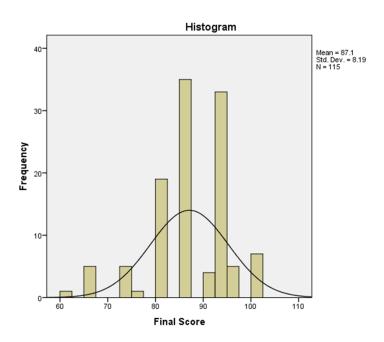
Sprinig 2013 results on the quiz showed significant improvement; students averaged 87% compared to 75% in the Fall 2012. The median score was 87%. The highest score was 100% and the lowest score was 60.%. Of those who completed the quiz, 90% scored an 80% or above, and 40% of students scored 90% or above. The standard deviation of the scores dropped to 8.19 (see Figure 2). Improvements in student performance reflect instrument error and correction better buy-in and participation by faculty (e.g., connecting student performance to a course grade).

Standard deviation was still high which is to be expected for a quiz given to first-year students before they have had any exposure to the relative subject matter. During both semesters that the quiz was administered, high standard deviation was likely an indication that students did or did not complete the SYR Tutorial before taking the quiz and thus there was a wider spread in quiz scores. The authors will continue to monitor standard deviation in future quiz cohorts and modify questions if necessary.

When included in a course, each SYR Quiz implementation was accordingly customized. The librarian and faculty instructor worked together to decide whether to give a course grade or participation credit for quiz completion; they also decided the number of days students were given to complete the quiz, and how students would be notified about it. Overall, faculty instructors were receptive to integrating the tutorial and quiz into their classes and librarians received positive feedback from students and faculty about design and content.

Aggregate, question-level feedback was provided to students in class or in online

FIGURE 2 – SECOND ROUND RESULTS

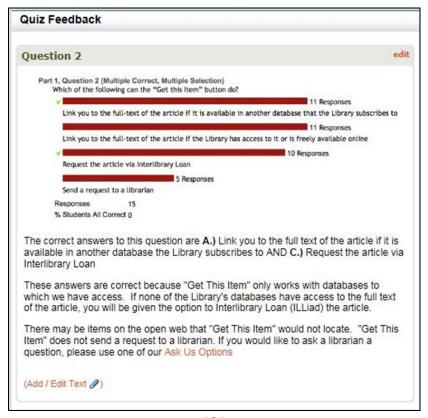


research guides (see Figure 3). This showed students how their scores compared with peers and highlighted when problems with the subject matter were widespread. In classes where quiz results were strong on the aggregate, the tutorial and quiz was allowed to stand as an asynchronous online IL lesson largely independent from coursebased library instruction; therefore, class time was devoted to more specialized or advanced material not directly addressed in the tutorial and quiz. In classes where sections of the quiz were problematic, library instruction was more heavily tailored to remediate questions that students did not answer correctly. Particular attention was given to areas where students consistently performed poorly, which included the following: subject headings, truncation, and information retrieval When it appropriate and possible, librarians worked with faculty to address students' IL deficiencies throughout the semester by integrating that subject matter into the course as a whole. In some classes, additional librarian-led workshops were added to address more fundamental student research needs and IL deficiencies identified by the quiz results.

Conclusion

The SYR Tutorial and Quiz have provided librarians with a web based learning option to address the needs of IL instruction in classes taught by faculty who are resistant to using class time. The CCL has plans to expand its use of LMS-based instruction and assessment strategies as a result of the success of the SYR Tutorial and Quiz pilot and the full implementation into first-year courses. To expand beyond these courses,

FIGURE 3 – EXAMPLE OF QUIZ RESULTS IN ONLINE RESEARCH GUIDE



CCL is creating complementary quizzes for each of the six tutorial modules; this will provide faculty instructors with opportunity to select specific tutorial modules they would like students to complete. Librarians who teach graduatelevel courses are beginning to customize quiz questions to reflect more advanced levels of instruction and research competencies. In addition, a seventh module on bibliographic citation and plagiarism has been added to the CCL tutorial, and the extant first-year quiz was revised to incorporate this new content. Finally, CCL librarians are considering the development of an additional quiz with similar content to use as a pre- and post-test set; the intent is to leverage the success of the quiz module by allowing for programmatic level assessment of information literacy instruction.

There are numerous challenges to making an online tutorial-based assessment in the library context; these including the potential lack of shared faculty and librarian IL learning objectives, and the limitations in tutorial technology in terms of capturing and transmitting student responses. By creating a stand-alone IL tutorial quiz that is integrated into the campus LMS, CCL has developed a flexible method of outcomesfocused, web-based IL assessment that produces data mutually beneficial to faculty and librarians and reinforces in-class instruction. This effectively solves the problem identified by Germak (2012), who noted, "when online tutorials are the exclusive tool or method of choice, assessment is not likely to be performed" (p. 11). The success of this "blended" approach has been popularly embraced by faculty, students, and librarians. Use of the tutorial and quiz has enabled faculty to give course credit for student participation in a librarydeveloped assignment. In addition, it has facilitated the integration of IL assessment into Sakai sites in first-year seminar courses across the Claremont Colleges. Overall, this has resulted in better integrated IL outcomes across the first-year curriculum and provided a mechanism by which to assess student IL competencies in an online setting.

REFERENCES

Adebonojo, L. G. (2011). A way to reach all of your students: The course management system. *Journal of Library & Information Services in Distance Learning*, *5*(3), 105-113. http://dx.doi.org/10.1080/1533290X.2011.605936

Anderson, S. A., & Mitchell, E. R. (2012). Life after TILT: Building an interactive information literacy tutorial. *Journal of Library & Information Services in Distance Learning*, 6(3), 147-158. http://dx.doi.org/10.1080/1533290X.2012.705106

Armstrong, A., & Georgas, H. (2006). Using interactive technology to teach information literacy concepts to undergraduate students. *Reference Services Review*, 34(4), 491-497. http://dx.doi.org/10.1108/00907320610716396

Aydelott, K. (2007). Using the ACRL information literacy competency standards for science and engineering/technology to develop a modular critical-thinking-based information literacy tutorial. *Science & Technology Libraries*, 27(4), 19-42. http://dx.doi.org/10.1300/J122v27n04_03

Befus, R., & Byrne, K. (2011). Redesigned with them in mind: Evaluating an online library information literacy tutorial. *Urban Library Journal*, *17*(1), 1-26. Retrieved from http://ojs.gc.cuny.edu/index.php/urbanlibrary/article/view/1245

Betty, P. (2008). Creation, management, and assessment of library screencasts: The Regis Libraries animated tutorials project. *Journal of Library Administration*, 48(3), 295-315. http://

dx.doi.org/10.1080/01930820802289342

Blevins, A., & Besaw, M. E. (2011). Reflecting on quiz placement in online tutorials: Creating a more active learning experience. *Medical Reference Services Quarterly*, 30(3), 316-324. http://dx.doi.org/10.1080/02763869.2011.590427

Bracke, P. J., & Dickstein, R. (2002). Web tutorials and scalable instruction: Testing the waters. *Reference Services Review, 30* (4), 330-337. http://dx.doi.org/10.1108/00907320210451321

Bradley, C., & Romane, L. (2007). Changing the tire instead of reinventing the wheel: Customizing an existing online information literacy tutorial. *College & Undergraduate Libraries*, 14(4), 73-86. http://

dx.doi.org/10.1080/10691310802128344

Burrell, C., & Lee, S. (2005). Online library tutorials at Antelope Valley College: Origin and development. *Community & Junior College Libraries*, 13(3), 33-42. http://dx.doi.org/10.1300/J107v13n03_05

Cook, D. L. (2002). Ship to shore: An online information literacy tutorial using BlackBoard distance education software. *Journal of Library Administration*, *37*(1), 177. http://dx.doi.org/10.1300/J111v37n01_16

Dennis, M. R., Murphey, R. M., & Rogers, K. (2011). Assessing information literacy comprehension in first-year students. *Practical Academic Librarianship: The International Journal of the SLA, 1*(1), 1-15.

Retrieved from http://journals.tdl.org/pal/index.php/pal/article/view/968.

Flatley, R., & Jefferson, W. (2006). Customizing and using a popular online information literacy tutorial: One library's experience. *Library Philosophy & Practice*, 8(2), 1-9. Retrieved from http://digitalcommons.unl.edu/libphilprac/72/.

Ganster, L. A., & Walsh, T. R. (2008). Enhancing library instruction to undergraduates: Incorporating online tutorials into the curriculum. *College & Undergraduate Libraries*, *15*(3), 314-333. http://

dx.doi.org/10.1080/10691310802258232

Getty, N. K., Burd, B., Burns, S. K., & Piele, L. (2000) Using courseware to deliver library instruction via the Web: Four examples. *Reference Services Review, 28* (4), 349-359. http://dx.doi.org/10.1108/00907320010359678

Germek, G. (2012). The lack of assessment in the academic library plagiarism prevention tutorial. *College & Undergraduate Libraries*, 19(1), 1-17. http://dx.doi.org/10.1080/10691316.2012.652547

Gravett, K., & Gill, C. (2010). Using online video to promote database searching skills: The creation of a virtual tutorial for health and social care students. *Journal of Information Literacy*, 4(1), 66-71. http://dx.doi.org/10.11645/4.1.1469

Gustavson, A., Whitehurst, A., & Hisle, D. (2011). Laying the information literacy foundation: A multiple-media solution. *Library Hi Tech*, 29(4), 725-740. http://dx.doi.org/10.1108/07378831111189796

Kazakoff-Lane, C. (2010). Anything,

anywhere, anytime: The promise of the ANimated tutorial sharing project for online and mobile information literacy. *Journal of Library Administration*, 50(7), 747-766. http://

dx.doi.org/10.1080/01930826.2010.488961

Kelley, J. (2012). Off the shelf and out of the box: Saving time, meeting outcomes and reaching students with information literacy modules. *Journal of Library & Information Services in Distance Learning*, *6*(3), 335-349. http://dx.doi.org/10.1080/1533290X.2012.705160

Kellum, K., Mark, A. E., & Riley-Huff, D. A. (2011). Development, assessment and use of an on-line plagiarism tutorial. *Library Hi Tech*, 29(4), 641-654. http://dx.doi.org/10.1108/07378831111189741

Kendall, M. (2005). Tackling student referencing errors through an online tutorial. *Aslib Proceedings*, *57*(2), 131-145. http://dx.doi.org/10.1108/00012530510589100

Kimok, D., & Heller-Ross, H. (2008). Visual tutorials for point-of-need instruction in online courses. *Journal of Library Administration*, 48(3), 527-543. http://dx.doi.org/10.1080/01930820802289656

Lapidus, M., Mccord, S. K., Mccloskey, W. W., & Kostka-Rokosz, M. (2012). Combined use of online tutorials and handson group exercises in bibliographic instruction for pharmacy students. *Medical Reference Services Quarterly*, 31(4), 383-399. http://dx.doi.org/10.1080/02763869.2012.724277

Lindsay, E. B., Cummings, L., Johnson, C. M., & Scales, B. J. (2006). If you build it, will they learn? Assessing online information literacy tutorials. *College & Research Libraries*, 67(5), 429-445.

Retrieved from http://crl.acrl.org/ content/67/5/429.abstract.

Lo, L. S., & Dale, J. M. (2009). Information literacy "Learning" via online tutorials: A collaboration between subject specialist and instructional design librarian. *Journal of Library & Information Services in Distance Learning*, 3(3), 148-158. http://dx.doi.org/10.1080/15332900903375325

McClure, R., Cooke, R., & Carlin, A. (2011). The search for the skunk ape: Studying the impact of an online information literacy tutorial on student writing. *Journal of Information Literacy*, 5 (2), 26-45. http://dx.doi.org/10.11645/5.2.1638

Noe, N. W., & Bishop, B. A. (2005). Assessing Auburn University library's tiger information literacy tutorial (TILT). *Reference Services Review*, *33*(2), 173-187. http://dx.doi.org/10.1108/00907320510597372

Ondrusek, A., Dent, V. F., Bonadie-Joseph, I., & Williams, C. (2005). A longitudinal study of the development and evaluation of an information literacy test. *Reference Services Review*, 33(4), 388-417. http://dx.doi.org/10.1108/00907320510631544

Palmer, C., Booth, C., & Friedman, L. (2012). Collaborative customization: Tutorial design across institutional lines. *College & Research Libraries News*, 73(5), 243-248. Retrieved from http://crln.acrl.org/content/73/5/243.full.

Shank, J. D., & Dewald, N. H. (2003) Establishing our presence in courseware: Adding library services to the virtual classroom. *Information Technology and Libraries*, 22(1), 38-43. Retrieved from http://www.ala.org/lita/ital/22/1/shank.

Silver, S. L., & Nickel, L. T. (2007). Are online tutorials effective? A comparison of online and classroom library instruction methods. *Research Strategies*, *20*, 389-396. http://dx.doi.org/10.1016/j.resstr.2006.12.012

Skagen, T., Torras, M. C., Kavli, S. M. L., Mikki, S., Hafstad, S., & Hunskår, I. (2008). Pedagogical considerations in developing an online tutorial in information literacy. *Communications in Information Literacy*, 2 (2), 84-98. Retrieved from http://www.comminfolit.org/index.php?
journal=cil&page=article&op=view&path% 5B%5D=Fall2008AR2.

Smale, M. A., & Regalado, M. (2009). Using blackboard to deliver library research skills assessment. *Communications in Information Literacy*, 3(2), 142-157. Retrieved from http://www.comminfolit.org/index.php? journal=cil&page=article&op=view&path% 5B%5D=Fall2008AR2.

Thornes, S. L. (2012). Creating an online tutorial to support information literacy and academic skills development. *Journal of Information Literacy*, 6(1), 81-95. http://dx.doi.org/10.11645/6.1.1654

Tronstad, B., Phillips, L., Garcia, J., & Harlow, M. A. (2009). Assessing the TIP online information literacy tutorial. *Reference Services Review*, *37*(1), 54-64. http://

dx.doi.org/10.1108/00907320910934995

Weiner, S. A., Pelaez, N., Chang, K., & Weiner, J. (2011). Biology and nursing students' perceptions of a web-based information literacy tutorial. *Communications in Information Literacy*, 5 (2), 187-201. Retrieved from http://www.comminfolit.org/index.php?

journal=cil&page=article&op=view&path% 5B%5D=v5i2p.

APPENDIX

The Start Your Research Tutorial Quiz with answer key

Describe the difference between article databases and the Library catalog (Blais). [OPEN ENDED]

Feedback: Article databases include article citations and abstracts. They are a search tool to find scholarly articles on a subject or topic. Blais, the library catalog, is a search tool to find books. Although it lists journals, it does not include information on specific articles in a journal.

Which TWO of the following can the "Get this Item" button do?

- A. Link you to the full-text of the article if it is available in another database that the Library subscribes to
- B. Link you to the full-text of the article if it is freely available online
- C. Request the article via Interlibrary Loan if it isn't available in full text
- D. Order takeout

Answer Key: A,C

Correct Feedback: Correct! A and C are correct because "Get This Item" only works with databases to which we have access. There may be items on the open web that "Get This Item" would not locate. If none of the Library's databases have access to the full text of the article, you will be given the option to Interlibrary Loan (ILLiad) the article

Incorrect Feedback: Incorrect. A and C are correct because "Get This Item" only works with databases to which we have access.

There may be items on the open web that "Get This Item" would not locate. If none of the Library's databases have access to the full text of the article, you will be given the option to Interlibrary Loan (ILLiad) the article

Which of the following do online article databases contain?

- A. Citations
- B. Abstracts
- C. Full-text of scholarly journal article
- D. All of the above

Answer Key: D

Correct Feedback: Correct! Online databases subscribed to by the Claremont Colleges Library (and other libraries) contain all of these things.

Incorrect Feedback: Correct, but incomplete. Online databases subscribed to by the Claremont Colleges Library (and other libraries) contain all of these things.

What would a scholarly book on an historical event be MOST likely to provide?

- A. A fictional account of the event
- B. In-depth information and analysis of the event
- C. A first-hand account of the event
- D. Opinions about the event

Answer Key: B

Correct Feedback: Correct! A scholarly book tends to provide in-depth information and historical analysis of an event.

Incorrect Feedback: Incorrect. Scholarly books tend to provide in-depth information and historical analysis of an event.

Which of the following is NOT a

secondary source?

- A. Scholarly article about an event
- B. Book analyzing the event
- C. Diary entry about the event
- D. Biography of Martin Luther King, Jr.

Answer Key: C

Correct Feedback: Correct! A diary is a primary source. Scholarly articles, books analyzing an event, and biographies are secondary sources.

Incorrect Feedback: Incorrect. A diary is a primary source. Scholarly articles, books analyzing an event, and biographies are secondary sources.

When is it useful to search by subject heading?

- A. When you have a general topic
- B. When you know subject specific vocabulary
- C. When you are having trouble finding relevant articles with keyword searching
- D. All of the above

Answer Key: D

Correct Feedback: Correct! Subject headings work better than keyword searches when you are researching general topics, using subject-specific vocabulary, and when a keyword search fails.

Incorrect Feedback: Incorrect. It's all of the above - subject headings work better than keyword searches when you are researching general topics, using subject-specific vocabulary, and when a keyword search fails.

Give an example of a primary source a researcher might use for ONE of the following subjects: history; biology; or psychology. [OPEN ENDED]

Feedback: For a historian a primary source could be a diary, letters, interviews, or news footage. To a biologist it could be results of an experiment, research, or clinical trials. To a psychologist, it could be census data, statistics, or results of an experiment on human behavior.

In a database, how can you quickly determine if an article is relevant to your research?

- A. Look at the year it was published
- B. Read the abstract
- C. See if the author is authoritative
- D. Find the full-text of the article

Answer Key: B

Correct Feedback: Correct! Remember, the abstract is the brief synopsis of the paper. Reading it can help you determine if it is worth your time to read the entire article.

Incorrect Feedback: Incorrect. The year it was published, whether the author is authoritative, of if you can find the full text may be important, but they do not tell you how relevant the article is to your research. Remember, the abstract is the brief synopsis of the paper. Reading it can help you determine if it is worth your time to read the entire article.

If you want to find articles ABOUT Ernest Hemingway, which field would you search using his name?

- A. Author
- B. Subject
- C. Article Title
- D. Journal Title

Answer Key: B

Correct Feedback: Correct! To find articles ABOUT someone, you should do a subject search.

Incorrect Feedback: Incorrect. To find articles ABOUT someone, you should do a subject search.

True or False: "Maternal" to mate* is an effective truncation.

A. True

B False

Answer Key: B

Correct Feedback: mate* is not an effective truncation of "maternal" because this search term would return unrelated search terms, such as mate, material, and mating.

Incorrect Feedback: Incorrect. Mate* is not an effective truncation of "maternal" because this search term would return unrelated search terms, such as mate, material, and mating.

Explain the differences between scholarly publications such as academic journals and popular publications such as newspapers and blogs (for example, time to publication, author qualifications, etc.). [OPEN ENDED]

Feedback: A scholarly publication is written by a credentialed expert (such as a professor) and "peer" reviewed by experts in the same field, and is usually published in an academic journal but sometimes by a commercial press. Examples of scholarly publications are Science and The Journal of Asian Studies. The publication's intended audience is other experts and often concerns original research. Publications of this type usually include bibliographies.

Popular publications, such as newspapers or blogs, tend to be written by journalists or enthusiasts, are fact checked for accuracy but not "peer" reviewed by experts, and are sometimes self-published. The intended audience of a popular publication is the general public. Examples of popular sources are The Los Angeles Times and The Huffington Post.

For a five-page paper, the research topic "President Obama and healthcare" is probably...

- A. too broad and needs to be narrowed
- B. too narrow and needs to be broadened
- C. just right

Answer Key: A

Correct Feedback: This topic would be appropriate, say, for a PhD dissertation, but is too broad for a short paper. You would want to do initial research to limit the scope of this topic.

Incorrect Feedback: Incorrect. This topic would be appropriate, say, for a PhD dissertation, but is too broad for a short paper. You would want to do initial research to limit the scope of this topic.

If you are not able to locate a book in the Claremont Colleges Library catalog (Blais), where should you search NEXT?

- A. Academic Search Premier
- B. JSTOR
- C. Link+, then ILLiad

Answer Key: C

Correct Feedback: Correct! Link+ is a consortium of academic and public libraries in California and Nevada that have agreed to share books. ILLiad is used to find books, but only if they aren't available through Link+. Academic Search Premier and JSTOR are article databases, you don't use them to find books.

Incorrect Feedback: Incorrect. You should search Link+. Link+ is a consortium of academic and public libraries in California

and Nevada that have agreed to share books. ILLiad is used to find books, but only if they aren't available through Link+. Academic Search Premier and JSTOR are article databases, you don't use them to find books.

Which search would return more results?

- A. adolescents AND teenagers
- B. adolescents OR teenagers

Answer Key: B

Correct Feedback: Correct! The term OR searches for instances where EITHER the term adolescents or teenagers is found. When the term AND is used both terms must be present.

Incorrect Feedback: Incorrect. The term OR searches for instances where EITHER the term adolescents or teenagers is found. When the term AND is used both terms must be present.

How would you construct a search using truncation (*) and boolean operators (and/or/not) for the following research question: "Has gender identity changed among secondary school students since the end of apartheid?" [OPEN ENDED]

Feedback: To construct a search on this topic you would first pull out the keywords from the research question. In this research question they are gender identity, secondary school, apartheid. You could then think about synonyms or related words that might be helpful to use in a search. For example, woman, man, teenager, adolescent and South Africa are examples of related words to consider using in a search for this topic. Here is one example search: (apartheid OR South Africa) AND (secondary school* OR adolescent) AND gender.

What should be your first step when you

begin working on a research assignment?

- A. swear loudly
- B. immediately start searching for information
- C. read your assignment

Answer Key: C

Correct Feedback: Correct! It is always important to know the perimeters of your assignment, so that you develop an appropriate research question and use appropriate sources.

Incorrect Feedback: Incorrect. It is always important to know the perimeters of your assignment, so that you develop an appropriate research question and use appropriate sources.

List three keywords related to your own research topic or question, and then provide at least two synonyms for each keyword.

If you do not have a research question or topic, what important keywords (including synonyms) would you suggest for the following example: "How does oil pollution affect marine mammals in the Gulf of Mexico"? [OPEN ENDED]

Feedback: The keywords are the key concepts in your research question. In the case of this research question they are oil, pollution, marine mammals and Gulf of Mexico. In order to effectively find resources on your topic you will need to think of synonyms (and related words) for your keywords.

Some examples of synonyms are:

- 1.) oil = petroleum, fuel, oil drilling
- 2.) pollution = environmental impact, water pollution, waste spills, hazardous wastes
- 3.) marine mammals = aquatic mammals, marine animals, dolphins

4.) Gulf of Mexico = coastal wetlands

Which of the following is a subject heading?

- A. The making of modern South Africa: Conquest, apartheid, democracy
- B. Nigel Worden
- C. Wiley-Blackwell
- D. Apartheid -- South Africa

Answer Key: D

Correct Feedback: Correct! Subject headings are the agreed-upon terms designated by the Library of Congress and assigned to each item in a library's catalog. "The making of modern South Africa" is the title of a book. Nigel Worden is the author's name. Wiley-Blackwell is the name of the publisher of the book.

Incorrect Feedback: Incorrect. Subject headings are the agreed-upon terms designated by the Library of Congress and assigned to each item in a library's catalog. "The making of modern South Africa" is the title of a book. Nigel Worden is the author's name. Wiley-Blackwell is the name of the publisher of the book.

What piece(s) of information do you need to locate a book on a library shelf?

- A. Location
- B. Call Number
- C. Status
- D. All of the above

Answer Key: D

Correct Feedback: Correct! You need all three pieces of information to find the book AND know that it will on the shelf.

Incorrect Feedback: Incorrect. You need all three pieces of information to find the book AND know that it will on the shelf.

What keywords would the truncated search child* find?

- A. child
- B. children
- C. childhood
- D. All of the above

Answer Key: D

Correct Feedback: Correct! "child*" would search for any words that begin with the stem "child". child* would, therefore, search for the terms child, children and childhood.

Incorrect Feedback: Incorrect. "Child*" would search for any words that begin with the stem "child". child* would, therefore, search for the terms child, children and childhood.