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LIRT's Top Twenty 2013

Anderson, A., Johnston, B., & McDonald, A. (2013). Information literacy in adult returners to higher education: Student experiences in a university pre-entry course in a UK university. *Library and Information Research*, 37(114), 55–73.

Anderson, Johnston, and McDonald studied the experiences of adult students in a pre-entry course returning to higher education in the UK. The authors conducted semi-structured interviews to understand the students' study and research habits, focusing on how these students access and evaluate information. Interviewees expressed unsophisticated epistemologies and weak metacognitive awareness. For example, students focused on differentiating between what they saw as high-quality and low-quality sources, correct and incorrect information. The authors attribute this practice to students' realist epistemologies, in which clear-cut evaluations impede deeper critical engagement with texts. Anderson et al. cite similar, preceding studies, including Whitmire's 2003 study of Yale undergraduates. Anderson et al. forge new ground by examining a different population -- returning adult learners -- and by emphasizing the role of epistemology and metacognition in developing information literacy. Of note are the authors' backgrounds: none is a librarian. The research team is comprised of a curriculum developer, a lecturer in psychology, and a practitioner who runs the pre-entry course. Their study, which echoes previous calls for librarian participation in curriculum design, might help convey this call to a broader audience.

Angell, K., & Tewell, E. (2013). Collaborating for academic success: A tri-institutional information literacy program for high school students. *Public Services Quarterly*, 9(1), 1-19.

Many colleges partner with local high schools to develop programs aimed at increasing the information literacy skills of high school students and better preparing them for college. Sarah Lawrence College (Westchester County, NY) has taken this practice one step further by not only partnering with the local high school, but the local public library system as well. They've linked this unique collaborative partnership with the Yonkers High School "International Baccalaureate" program, a college- prep initiative that involves intensive research using academic-level resources. This arrangement provides the perfect opportunity for sustained student involvement with a college librarian over the entire academic year (as opposed to more typical "one-shot" sessions). The partnership results in benefits for all involved, including clear demonstration of the value of an academic library; improving instruction methods and materials; bridging the gap between high school and college information literacy skills; improving student access to library resources; and even reducing student library anxiety. The authors provide a

detailed program plan and schedule of workshops and activities, which allows other libraries to have a clear picture of how the program works. In addition, the authors have identified a series of questions and considerations for libraries interested in implementing a similar program in their own area.

Bandyopadhyay, A. (2013). Measuring the disparities between biology undergraduates' perceptions and their actual knowledge of scientific literature with clickers. *The Journal of Academic Librarianship*, 39(2), 194–201.

Asking students to evaluate their own information literacy skills is a common part of a library instruction session, and librarians often report out on these evaluations. However, students often perceive their own abilities and knowledge to be much higher than they actually are. In this study, Bandyopadhyay measures the disparities between students' own perceptions of their abilities and their actual knowledge of scientific literature. Using clickers, 274 students enrolled in a biology class were asked to rate their own skills and then answer questions related to evaluating peer reviewed articles. The author found that the majority of students were not able to distinguish different types of scientific articles even though they had self-identified as having the abilities and knowledge to do so. In addition to the discussion of the disparities, the author also discusses some of the benefits of using clickers in the classroom. This article provides some evidence that conclusions drawn from perception-based outcomes may not reflect actual student performance. Library instructors may want to add performance-based assessment to their information literacy instruction.

Benjes-Small, C., Archer, A., Tucker, K., Vassady, L., & Resor Whicker, J. (2013). Teaching web evaluation: A cognitive development approach. *Communications in Information Literacy*, 7(1), 39–49.

To address the continuing disconnect between web evaluation instruction and student retention of evaluation techniques, a group of Radford University librarians researched and employed education theory and a constructivist approach to student learning when redesigning their web evaluation instruction. Based on the cognitive development theory of William Perry, the librarians knew that first-year college students typically employ a dualistic (right/wrong, black/white) viewpoint and, as they mature, become more cognizant of differing points of view. To help dualistic students learn to evaluate websites beyond what is simply "good" or "bad," and without merely relying on authority figures (i.e. the librarian) to tell them which is which, Benjes-Small and her colleagues created a hands-on lesson plan that allowed the students to develop their own criteria for quality websites based on their own knowledge and experiences. A three-part lesson was developed where students first create their own set of evaluation criteria, then set the "gold standard" for a website on a specific topic, and finally compete with their classmates to find the best "gold standard" website. This constructivist approach, allowing the students to learn while doing, also includes librarian-led discussion that frames the students' discovery and provides context to encourage them to adopt multiplicity positions and a more relativistic viewpoint. Both formal and

informal assessment of this new exercise indicated significant improvement in meeting the learning objectives of the lesson.

Bluemle, S. R., Makula, A. Y., & Rogal, M. W. (2013). Learning by doing: Performance assessment of information literacy across first-year curriculum. *College & Undergraduate Libraries*, 20(3-4) 298-313.

The librarians at Augustana College in Illinois describe the implementation of a new assessment model for library instruction. This case study analyzes the effectiveness of performance assessment as an organic method of evaluating higher-level thinking information literacy (IL) skills as part of a required first-year course sequence. The sequence involves three successive courses throughout freshman year and sections are taught by as many as sixty different instructors who collaborate with librarians for the library instruction portion of the class. The librarians created a simple activity worksheet that includes student explanation of their source's appropriateness in context with criteria of the sources as determined by the class earlier in the session. Librarians shared final reports that included the various IL outcome, topic, criteria, and assignment from each class session to determine the overall implications. Results indicate general areas of student strengths and weaknesses allowing data-driven pedagogical and curricular improvements to be made. This model allows librarians to teach important IL skills, promote critical thinking, and evaluate learning outcomes within the required-course environment. Increasing awareness within higher education of library instruction and information literacy as an avenue for teaching and assessing the higher-thinking skills necessary for meeting both campus-wide and accreditation goals, adds to the value of the library and librarians to their institutions. The flexibility and overall simplicity of this model creates the opportunity for a more proactive role for librarians within their teaching communities.

Bonnet, J. L., Anderson Cordell, S., Cordell, J., Duque, G. J., MacKintosh, P. J., & Peters, A. (2013). The apprentice researcher: Using undergraduate researchers' personal essays to shape instruction and services. *portal: Libraries & the Academy*, 13(1), 37-59.

Using narrative analysis, Bonnet et al. examined thirty-four research essays written by undergraduates and the corresponding letters submitted by faculty advisors. Through extensive examination and coding of these case studies, the authors identified evaluative statements that reveal patterns in undergraduate research behaviors and describe the meanings assigned to those behaviors. The authors' findings challenge previous studies that characterize students as passive, indifferent researchers by identifying the "apprentice undergraduate researcher." The apprentice researcher takes a personal interest in her topic, seeks authoritative sources, utilizes traditional and nontraditional information gathering methods, evaluates information, creates a personal learning network, and embraces the circuitous nature of the research process as a learning opportunity rather than an obstacle. The authors shatter the stereotype of the disengaged undergraduate researcher and encourage

librarians to rethink the generalizations and assumptions they make about students and to consider new possibilities for meeting the needs of the apprentice researcher. Bonnet et al. shed light on these possibilities by exploring the ways in which their findings apply to teaching. The authors describe practical interventions librarians can use in a variety of instructional settings to help students connect with their research topics, accept research as a reiterative process, and recognize the importance of building relationships within a scholarly network. Essentially, these interventions ask librarians to remain cognizant of the different levels of experience and motivation that students carry with them and to “teach research in the context of students’ needs and interests” (55). The authors conclude with a few recommendations for serving students.

Calzada Prado, J., & Marzal, M. Á. (2013). Incorporating data literacy into information literacy programs: Core competencies and contents. *Libri: International Journal of Libraries & Information Services*, 63(2), 123–134.

Responding to the increasing availability and importance of scientific, statistical, and technical source data, this insightful article advocates for school, public, and academic libraries to include data literacy in their information literacy programs. To support these efforts, the authors provide an extensive literature review of such related areas as definitions of data literacy, competencies explicitly associated with data literacy in existing information literacy standards, and current responses to the need for data literacy in libraries’ instructional programs and services. The article’s undeniable contribution to the discussion lies in its resulting identification and description of a set of core competencies and contents that can be used as an adaptable common framework of reference in instructional programs across institutions and disciplines. Specifically, competencies and contents under such categories as understanding data, finding and/or obtaining data, reading, interpreting and evaluating data, managing data, and using data are discussed. Topics for future research are also outlined.

Hattwig, D., Bussert, K., Medaille, A., & Burgess, J. (2013). Visual literacy standards in higher education: New opportunities for libraries and student learning. *portal: Libraries & the Academy*, 13(1), 61-89.

The authors argue for the importance of visual literacy in our current visual culture, citing the need for students to learn how to analyze and create visual documents and media across the curriculum within the higher education curriculum. They discuss the history of visual literacy from the founding of the Visual Literacy Association by John Debes and others in the 1960s to ACRL’s publishing of its own *Visual Literacy Competency Standards for Higher Education* and current ideas in its various renditions, comparing ACRL’s standards for both information literacy and visual literacy with those of North Central Regional Educational Laboratory and several other individuals and groups. ACRL’s standards encompass finding, evaluating, interpreting, and creating images and

other media; other rubrics or standards emphasize digital media and production. The authors then elaborate on how libraries can support and help schools articulate these standards in order to contribute to students learning in these areas, discussing various themes such as tracing copyright in an era of creative use of images and other media such as mashups. The article should prove valuable to all those who require a systematic treatment of ACRL's *Visual Literacy Competency Standards for Higher Education* within the broader context of visual literacy standards and scholarship.

Hoffmann, D., & Wallace, A. (2013). Intentional informationists: Re-envisioning information literacy and re- designing instructional programs around faculty librarians' strengths as campus connectors, information professionals, and course designers. *The Journal of Academic Librarianship*, 39(6), 546-551.

Using the tenets of social justice theory as a framework, Hoffman and Wallace challenge librarians to reflect on their views of information literacy and reevaluate their current instructional practices and pedagogical techniques. They propose that an overemphasis on demonstrating the mechanics of search and retrieval robs librarians of the opportunity to help students develop the higher order thinking skills necessary for comprehending, critiquing, and effectively addressing the complex information issues and problems they will encounter in their personal lives, workplaces, and communities. The authors explain how the desire to assess students' understanding of the economic, social, and ethical issues entrenched in the use of information prompted the librarians at California State University, Channel Islands to seek instructional opportunities beyond the one-shot sessions and partnerships with colleagues within and outside the library. Through detailed descriptions of three different credit bearing courses developed and taught by librarians, the authors illustrate innovative approaches for infusing information literacy into the curriculum and across disciplines to help students become "intentional informationists" (547). The courses discussed include a course on information and communication, a course on libraries as organization, and a capstone for pre-service teachers. The descriptions include examples of learning outcomes, course content, activities, teaching strategies, and student commentary. Recognizing that not all librarians have the opportunity to design and teach credit courses, Hoffman and Wallace provide smaller scale ideas that do not require a library session or course to encourage participants to thoughtfully reflect on complex information problems.

Holliday, W., & Rogers, J. (2013). Talking about information literacy: The mediating role of discourse in a college writing classroom. *portal: Libraries and the Academy*, 13(3), 257-271.

The authors of this article completed a small-scale, observational study using a sociocultural approach in order to determine how classroom language and activities -- classroom discourse -- affect how students and teachers think about information literacy and the research and writing process. They observed the interactions throughout the semester between

nineteen students and their instructor in a university-level writing class as they were learning about how to write a persuasive research paper. The authors also examined the course syllabus, assignment descriptions, some student work, and conducted two focus groups with students to find out more about their experiences with information literacy. In addition, they interviewed the course instructor. In the end, the authors found four primary themes evident in this course's discourse. These themes include the tendency to refer to sources as objects and containers of information thereby not encouraging students to engage deeply with information. An emphasis on the "right" number of sources was also found in the data analysis. They also found that a checklist method to evaluating the "right kind" of sources does not encourage a critical thinking approach to conducting research. The final theme brought all of the other themes together and presented a dichotomy of viewpoints regarding research. Some students thought of research as "finding sources." Others considered research a process to "learn about" an idea. This study gives both writing instructors and librarians a window into how the language they use and their classroom activities influence how their students think and complete research.

Kuhlthau, C. C. (2013). Rethinking the 2000 ACRL Standards: Some things to consider. *Communications in Information Literacy*, 7(2), 92–97.

Noted information literacy researcher Kuhlthau proposes three "rethinks" for revision of the ACRL Standards for information literacy (2000), grounded in her extensive study of the information search process. First, she suggests rethinking the concept of information need, which in the Standards appears to be a concrete, fixed entity. Instead her research shows that information need evolves throughout the information seeking process with the addition of new information. Second, she suggests rethinking the Standards' emphasis on "extracting" information, which she finds a simplistic, mechanical, cut-and-paste approach. Instead her research demonstrates that learning from a variety of sources is a creative, constructive, dynamic process. Third, she proposes viewing information literacy as a holistic process of learning that draws on the affective, cognitive and physical domains. She shows how these domains are incorporated in her guided inquiry model of the information search process, which takes students through the phases of open, immerse, explore, identify, gather, create, share, and evaluate. Although this model was originally focused on Pre-K -12 students, Kuhlthau suggests adopting it for undergraduates and provides examples where this has already happened. She emphasizes the need to create standards that show the role of information literacy in an individual's deep thinking, reflection, innovation, and learning.

Latham, D., Gross, M., & Witte, S. (2013). Preparing teachers and librarians to collaborate to teach 21st century skills: Views of LIS and education faculty. *School Library Research (SLR)*, 16, 1-23.

In this case study, Latham, Gross, and Witte examined how teachers and school

librarians are trained in their pre-service education to collaborate with each other. The authors conducted semi-structured interviews with education and LIS faculty at a US university, examining instructors' experiences with collaboration, points in each curriculum in which collaboration is or could be taught, as well as strategies and challenges related to teaching collaboration. LIS faculty in the study identified two courses that discuss teacher-librarian collaboration and numerous courses that discuss collaboration more broadly. Education faculty in the study identified various courses that require use of library resources, but none where teacher-librarian collaboration is taught or discussed. Faculty in both disciplines see the topic as one that warrants teaching and proposed various strategies to integrate it into the curricula. Both the interviewees and the study authors propose that education and LIS faculty might co-develop a cross-listed course in order to train teachers and school librarians on teacher-librarian collaboration and also to foster a larger culture of collaboration between the disciplines.

Montiel-Overall, P., & Grimes, K. (2013). Teachers and librarians collaborating on inquiry-based science instruction: A longitudinal study. *Library & Information Science Research*, 35(1), 41-53.

Montiel-Overall and Grimes report on the implementation of a training program to train teachers and librarians in a collaborative model of teaching inquiry-based learning in a science classroom of Latino elementary students in an English Immersion program. The collaborative model used in this study involved coordination, cooperation, integrated instruction, and curriculum. The inquiry-based learning model taught to teachers and librarians emphasized hands-on problem solving and experimentation. The teacher-librarian collaboration was implemented at six elementary schools from two districts using twelve teachers, six librarians, and six peer mentors. Adults with technological and/or science experience were also used in the study. All of these participants were exposed to many professional development interventions to learn collaborative skills and inquiry-based instructional approaches to teaching science and information literacy practices. The study took place over two academic years. Participants were evaluated on understanding of teacher-librarian collaboration, inquiry-based learning in science, information literacy, and changed perceptions and pedagogy. The transformative and positive effects of the collaborative instruction are described, including descriptions of how student questioning was allowed to guide instruction and how library research was integrated into the process of learning. The role of the peer mentors was also positively viewed by participants and researchers. The article does an excellent job of informing the library community about the rewards and challenges of implementing a training program in teaching collaborative inquiry-based instruction.

Riehle, C.F., & Weiner, S. A. (2013) High-impact educational practices: An exploration of the role of information literacy. *College & Undergraduate Libraries*, 20(2), 127-143.

The authors of this article were interested in the way information literacy competencies are represented in five selected high-impact educational

practices: capstone experiences, learning communities, service learning and community-based learning, undergraduate research, and writing-intensive courses. They looked at books and journal articles from a variety of disciplines that were published from 1999-2010 to see how information literacy competencies were represented in these areas even if these competencies weren't explicitly stated. They found many instances where information literacy was incorporated or was an outcome of these educational practices although they did not find many instances when it was required as a prerequisite. The authors recommend that librarians examine their assessment, pedagogical practice and program plans in order to see how they can take advantage of these high impact educational opportunities. They also include a helpful appendix that maps the literature they reviewed to high impact educational practices and to specific information literacy competencies. This chart would be helpful to librarians who would like to take an evidence-based approach to their outreach in these five areas. In addition, the recommendations provide a general blueprint of how to expand the information literacy program in these areas on any campus.

Smith, J. K., Given, L. M., Julien, H., Ouellette, D., & DeLong, K. (2013). Information literacy proficiency: Assessing the gap in high school students' readiness for undergraduate academic work. *Library & Information Science Research*, 35(2), 88–96.

As part of a larger interdisciplinary project, Smith, et al. completed a two part research analysis which audited existing information literacy practices at the University of Alberta (UA) and used the James Madison University Information Literacy Test to assess 103 twelfth grade students in three Edmonton, Alberta high schools. The team found that UA students were not aware of information literacy resources on their campus even though the students did recognize the importance of these skills. In a rigorous statistical analysis in the second part of their project, the team found that none of the 103 twelfth graders tested had advanced information literacy skills and only 19% had proficient skills which meant 81% of these students were non-proficient in the area of information literacy. The team then tested the reliability of their results and found that they had performed a faithful analysis. Within these low results, students tested higher in the areas of using traditional print resources and understanding the ethical use of information, but did poorly in developing effective search strategies, understanding academic journals, using databases, and understanding the publication process. This article contributes to the research that is being completed in the area of the high school to college transition period. It also provides hard evidence to both K-12 and higher education educators that students are not prepared for college level research. Finally, it provides an example of how undergraduate students may value information literacy at the college level but do not know where to get help with acquiring these skills.

Stowe, B. (2013). Designing and implementing an information literacy instruction

outcomes assessment program. *College & Undergraduate Libraries*, 20(3-4), 242–276.

This case study describes and analyzes the efforts of the library faculty at the Brooklyn Campus Library of Long Island University who are involved in developing, testing, and implementing a ground-up information literacy outcomes assessment program for the undergraduate core curriculum. Based on the increasingly prominent role given to information literacy by re-accreditation agencies, the library was prompted to significantly upgrade its assessment practice of collecting anecdotal evidence and administering clickers-based exit surveys. To detail the process of the upgrade, the article discusses such issues as key external and internal institutional forces that influence the development of an outcomes assessment programs. The library faculty members discuss choosing the appropriate assessment instrument (standardized or locally developed), establishing a hierarchy of priorities of assessment areas/ goals, determining the actual assessment questions, and building the iterative assessment cycle (pre-assessment and post-assessment). The author includes examples from early versions of the evaluation instruments as well as the revisions of such instruments. The honesty of the library faculty members is disarming—they freely refer to the persistent personnel and managerial issues their library had been facing for some time and are generally very open about the challenges this represented in terms of developing a sustainable assessment program. As a result, this article provides an invaluable resource for other institutions trying to build their outcomes assessment program from scratch.

Subramaniam, M., Ahn, J., Waugh, A., Greene Taylor, N., Druin, A., Fleischmann, K. R., & Walsh, G. (2013). Crosswalk between the Framework for K–12 Science Education and Standards for the 21st-Century Learner: School librarians as the crucial link. *School Library Research (SLR)*, 16, 1-28.

This article reports on a study of a project in which the researchers collaborated with school librarians to co-construct an after-school program for urban middle school students called Sci-Dentity. Sci-Dentity encourages students to connect science-infused media (e.g. science fiction, popular science, graphic novels, and science fiction movies) with science. The overarching goal of the study was to discover how school librarians can play an active, stronger role in science learning. The research took an ethnographic approach; data collected included project documentation, records of observation, interview transcripts and student stories. The data was analyzed through the lens of a conceptual framework that brought together the Framework for K–12 Science Education and the American Association of School Librarians' (AASL) Standards for the 21st-Century Learner, and the authors provide a “crosswalk” appendix showing these connections which the reader will find especially valuable. The researchers also used the lens of the AASL's five official roles of the school librarian: information specialist, instructional partner, teacher, program administrator, and leader. The analysis showed librarians able to extend their roles and expertise to assist in science learning, particularly in the creation of a sociocultural environment conducive to science exploration. Because of the importance of STEM within education, the

researchers believe that demonstrating the link between science and school libraries will help to sustain strong library programs in schools.

Van Epps, A., & Sapp Nelson, M. (2013). One-shot or embedded? Assessing different delivery timing for information resources relevant to assignments. *Evidence Based Library and Information Practice*, 8(1), 4–18.

In this paper that adds to the literature on how to best reach students with information literacy instruction, the authors set out to answer the question of whether “just-in-time” sessions are more effective than the traditional “one-shot” session. All students in the study received the same amount of instruction but the instruction was divided up differently. Two sections received four mini-lectures just prior to an assignment, and one section received one 50-minute session at the beginning of the semester. In order to determine the impact of the sessions on student learning, the authors looked at the type of information resources, the quality of the resource, and completeness of the references. The authors found that students who had received the “just-in-time” sessions included a higher number of quality resources in their assignments compared to the “one-shot” group. They also found that the “just-in-time” group used fewer web resources and more periodicals. In conclusion, this article provides librarians with evidence that “just-in-time” instruction may be a more effective alternative to the traditional “one-shot” session.

Walton, G., & Hepworth, M. (2013). Using assignment data to analyse a blended information literacy intervention: A quantitative approach. *Journal of Librarianship and Information Science*, 45(1), 53–63.

This timely research study joins current debates surrounding the effectiveness of e-learning compared to the standard face-to-face delivery of instruction by trying to determine if a blended information literacy learning and teaching intervention can significantly enhance undergraduate students’ ability to evaluate source materials successfully. Unlike many assessment projects related to information literacy, this article focuses on developing students’ capability to use higher order thinking skills, particularly those involving the use of information (application, analysis, and synthesis). The authors conclude that when given the additional opportunity to engage in an online discourse through social media learning, students ended up using a greater variety of material evaluation criteria and used these criteria more frequently in their assessed work than students exposed to face-to-face instruction only or students whose face-to-face instruction was followed only by a simple reflective online activity (test or quiz). Of special interest is the authors’ method of assigning qualitative data from students’ assessed work as a quantitative value for the purposes of statistical analysis: each use of a specific evaluation criterion was given a score of one (1). A possible limitation of this insightful study is the relatively small sample size and the inclusion of participants from one academic discipline only (thirty-five undergraduate students studying Sports and Exercise)—a limitation which the authors address. The study represents a powerful advocacy piece for using a blended approach with an

online discussion component in delivering information literacy to foster higher order learning in students.

Watson, S. E., Rex, C., Markgraf, J., Kishel, Hans, Jennings, E., & Hinnant, K. (2013). Revising the “one-shot” through Lesson Study: Collaborating with writing faculty to rebuild a library instruction session. *College & Research Libraries* 74(4), 381-398.

A team of four librarians and three English department faculty at the University of Wisconsin-Eau Claire (UWEC) collaborated to revise “one-shot” library sessions by using the Lesson Study process. This method of lesson development is used in Japan. It consists of a five-step process that involves identifying goals, planning the lesson, teaching and observation, discussion of findings, and finally revising the lesson accordingly. The team used the Association of College & Research Libraries *Information Literacy Standards for Higher Education* as a guide to creating goals. The initial lesson was taught to a section of a freshman English course and observed by members of the Lesson Study group. In discussion of their findings the group discovered a need for clearer instructions, less librarian demonstration, and more student engagement. The revised lesson was taught to another section followed by more discussion. In addition to using the new planning method, the lesson featured an innovative research activity that required students’ to partner and find resources for the others’ topic with the intention of keeping students on task due to accountability. The group found that students were also inclined to communicate more effectively to allow replication of the process by the partner. Student feedback was included in the groups’ assessment of the second lesson as well as the actual worksheets from students. The project proved to be successful in bringing both library and subject faculty to a better understanding of student needs and improved assessment of student learning outcomes in library sessions.