Abstract
Librarians are an essential part of the diverse community of campus stakeholders focused on student success. Establishing a mutually understood and shared foundation of concepts is critical if we wish to collaborate successfully with these stakeholders on assessment projects and ultimately integrate information literacy into campus learning outcomes and student success goals. The process of developing and normalizing a collectively accepted understanding of information literacy between librarians, faculty, and institutional research partners was more of a challenge than anticipated and required research, discussion, documentation, and patience to achieve.

Background
In 2011, the University of California, Santa Cruz, embarked on an extensive campus-wide strategic plan that included a focus on undergraduate student success. In support of this effort, in 2013, the university library created an Undergraduate Experience Team (UET) of four senior librarians and a library assistant who would all be responsible for lower-division library instruction.

At the same time, the university library adopted an exclusively online instruction approach to support lower-division library instruction. Prior to this, Composition 2 and Writing Program courses comprised the vast majority of the library’s in-person, one-shot library instruction sessions. Students in these courses are required to engage with popular and scholarly sources in order to complete a requisite research assignment. The library had supplemented these in-person instructional sessions with several self-paced online tutorials using the Guide on the Side (GOTS) interface from the University of Arizona Library.

Along with the mandate for an online only approach to lower-division library instruction, UET was charged to build an assessment-driven foundation for long-term student success and articulate a mutually understood framework of information literacy concepts in collaboration with other campus stakeholders committed to student success. Establishing a culture of assessment was key to creating a successful environment. Librarians who wish to connect and support student success need to be able to assess student work in a systematic manner in order to determine evidence of information literacy skills.

UET chose to determine if the GOTS tutorials currently in use were effective in ensuring students acquired the needed information literacy proficiencies to complete their research projects when supported by an online tutorial in lieu of in-person information literacy instruction and, if not, what areas were not being addressed. This evaluation would provide UET with an opportunity to connect with writing faculty and lay the foundation for future assessment of instructional support resources.

The Project
In early 2015, UET partnered with Writing Program faculty and the Institutional Research, Assessment, and Policy Studies (IRAPS) department to develop and carry out a project to assess an existing online research tutorial in terms of its scope and effectiveness to teach the research skills lower-division students needed to satisfy Writing Program course learning outcomes. The project, “Evaluating Research Projects to Measure Information Literacy Outcomes for Lower-Division Writing Students,” was accepted for participation in the “Assessment in Action: Academic Libraries and Student Success” (AiA) initiative sponsored by the Association of College and Research Libraries (ACRL) in partnership with the Association of Institutional Research and the Association of Public and Land-grant Universities.

Our writing faculty partners had a long history of incorporating library instruction into their teaching,
prior experience in developing and applying rubrics, and, along with our IRAPs partner, a commitment to effectively integrating information literacy standards in the context of Program Learning Outcomes (PLO) not only in the Writing Program but across the curriculum. The project timing coincided with a campus-wide re-envisioning of undergraduate learning outcomes, particularly information literacy.

In fall 2015, students from four sections of Writing 2 and one section of Core 80B participated in the project. They were asked to complete a library online “Academic Search Complete Tutorial” (ASC) used by Writing faculty for their students since 2014 and delivered via the GOTS interface. Of the 115 total students involved, 84 completed the tutorial and accompanying quiz questions. Students were then asked to complete a survey regarding their research process. In addition to these two sources of data, the project team received copies of each student’s list of cited works for their required final research assignment. The project team developed analytic rubrics and applied them to each student’s research process survey and assignment bibliography to measure students’ information literacy proficiencies.

Challenge: Differing Perspectives
Creating learning outcomes and an appropriate analytic rubric involved challenges, the most critical of which was clearly articulating a shared understanding of what we were assessing. All project members agreed on the importance of information literacy within the research process; however, the way each of us viewed and interpreted information literacy itself varied greatly. These differences became obvious as we began discussions and found that librarians and writing faculty speak very differently when describing the research process: “[S]cholars approach research through their knowledge of the discipline, their understanding of theories or paradigms, and recognition of prominent names in the field.”

With our differing perspectives and terminology, it was often difficult to communicate effectively even though we held many basic concepts in common. Words and “terms are conflated or interchanged regularly in educational theory... Instructors and organizations used the terms as they wanted, as long as internally the hierarchy was evident and their use consistent...” We had to find a way to articulate mutually held concepts as well as being able to identify where differences occurred before we could truly begin work. We needed a solid foundation in order to create clear, specific, and measurable assessment objectives.

Challenge: Changes to ACRL Information Literacy Concepts
Our group went forward with this project during a period of great transition in the landscape of information literacy. In 2000, the Association of College & Research Libraries (ACRL) published the groundbreaking work Information Literacy Competency Standards for Higher Education, an influential document that became the foundation for the advancement of information literacy into higher education. In use for the last fifteen years, these standards were embedded within library instruction, resources, and campus-wide collaborations in academic libraries across the United States.

In 2015, ACRL unveiled an entirely new “Framework for Information Literacy in Higher Education.” More a theoretical document, this new framework lacked the standards or learning outcomes essential for assessment purposes and did not map to existing ACRL information literacy standards. It was instead “based on broad frames; focused on concepts rather than skills; comprised of threshold concepts, knowledge practices, and dispositions; and abbreviated in length.”

Though intentionally less precise to allow more freedom and flexibility in application, transforming these frames into usable learning outcomes was an additional challenge. Oakleaf noted that “[t]his level of freedom comes hand in hand with a level of ambiguity... and where there is ambiguity, there can also be a fair amount of difficulty...” Though the new ACRL framework did not correspond exactly to the former ACRL standards, there were areas of alignment. We began with the existing ACRL information literacy definition and standards and gradually introduced new framework components as we developed our learning outcomes. Our learning outcomes became a hybrid of both the older ACRL standards and the newer framework, hopefully allowing us to have a reference point when looking back at previous assessment data that used the older ACRL standards, as well as a beginning to incorporate the new framework for future assessments.
Mapping the Concepts
Our first step in developing our learning outcomes was to create an overview of the components informing this project and arrange them in correlation to each other. This document became our learning outcomes map (see Appendix A) and included major information literacy standards, Writing Program objectives, and library research skills covered in the tutorial, plus UCSC’s newly developed outcomes for graduating seniors. Though not seen on this document, we also incorporated concepts from the Association of American Colleges & Universities (AAC&U) LEAP “Essential Learning Outcomes.” Glaring omissions from this matrix were information literacy program learning outcomes for the Writing Program. As part of a campus initiative, departments were required to develop measurable information literacy learning outcomes and the Writing Program was not alone in having yet to create these. This project presented a wonderful opportunity for the library to collaborate with writing faculty and provide input on learning outcomes for information literacy.

It was clear that there were differences in our understandings of research and the ways we teach it to students. To resolve some of the confusion created by the variety of terminology used by faculty, librarians, and the new ACRL framework, we created a glossary (see Appendix B) of terms that clearly defined words and usage. Creation of this list was a time-consuming process that ultimately proved to be a key resource that we consulted frequently as we proceeded with the project. The glossary was the first step in correlating information literacy accreditation standards with potential learning outcomes for the UCSC Writing Program.

We divided our workload among the project team members. Librarians outlined the library skills covered in the tutorial being assessed and the characteristics that would be used to identify levels of mastery and used this to create a set of learning outcomes with evaluation criteria. With the help of our glossary, we then worked through comparisons of information literacy and Writing Program objectives to develop a matrix correlating information literacy standards with specific learning outcomes appropriate to the UCSC Writing Program (see Appendix C). This detailed matrix was used to articulate key learning outcomes in the ASC tutorial and informed our selection of specific rubrics based on those successfully used by other academic libraries for first-year student-learning outcomes. We further customized these rubrics for our ASC tutorial learning outcomes and the Writing 2 learning outcomes related to information literacy and course assignments.

Assessment
We had two sources of data that we used for this assessment. The first was a survey to assess mastery of specific skills by trying to ascertain students’ research processes. The second source of data came from an analysis of the cited works for the final research assignment to determine how well they met their instructor’s course requirements.

Writing faculty took on drafting the research process survey with input from our IRAPS team member. After completing the ASC tutorial, the survey asked students to document their topic/thesis statement, main concepts and keywords, and research sources. Though librarians offered input on survey questions, it was not a surprise when writing faculty presented some very different approaches on how to solicit evidence of the project learning outcomes. After much discussion, and with deadlines looming, the team proceeded with the survey created by the writing faculty and agreed to adjust the assessment plan if needed to accommodate the information gathered. The survey was provided to students in an online format and responses were compiled online as well.

Librarians developed the rubrics for the assessment, one set for the student research process survey and another for the student-cited works. Our choices (see Appendix C) were initially informed by the ACRL standards and those used by other academic libraries for first-year student-learning outcomes, such as the AAC&U VALUE Initiative for rubrics. Working from the initial matrix of learning outcomes we had created for the ASC tutorial, we identified a learning outcome and created evaluation criteria for each question on the research process survey, creating a carefully labeled and annotated master rubric.

This proved another point at which we paused to revisit language and terms to ensure that the rubric was consistent with the concepts presented in the tutorial, and that the evaluation criteria was consistently applied to the results provided by the student research survey. The glossary created earlier in this process was an important touchstone as we went through this process, allowing us to quickly clarify our usage and terminology as we worked.
IRAPS member provided valuable advice on best practices for scoring and then transferred our rubric to an online survey platform.

We then developed our second set of rubrics to assess each student’s cited works list in relation to their instructors’ assignment requirements. We first analyzed participating writing instructors’ assignments to identify research requirements held in common among all classes to use as performance criteria and created a rubric describing evaluative criteria, definitions for criteria at particular levels of achievement, and scoring strategy. Once again, our IRAPS member provided invaluable help with turning this rubric into an online scoring sheet that greatly enhanced our ability to input and share results.

Norming
The UET librarians took the lead on scoring. To support inter-rater reliability, we developed a team approach with 10 two-person teams. Each librarian was assigned to four different teams and librarians served as team leader for two of their four teams. Team leaders were responsible for scheduling team meetings, entering responses into the survey instrument, and ensuring that the process was completed in a timely manner. Each team evaluated approximately half of one class section and each librarian evaluated a portion of all four different class sections, approximately forty students per librarian. This arrangement ensured that teams were comprised of all variations of combinations for all five UET members. Student survey results and their list of cited works were not scored independently; both members of a team were present to help ensure consistency in rubric application.

As with all rubric norming, we engaged in numerous group practice sessions, discussing and documenting scoring guidelines in great detail as we worked towards consistency in application. However, even though we were aware that this process could be lengthy, we were taken aback by the amount of time we needed to reach a shared and reliable understanding of scoring. With variations in how students answered the surveys and compiled their cited works, we found that even with our glossary, there was still confusion and inconsistency in how to apply our rubric. After much discussion, we created an AiA Scoring Process Sheet (see Appendix D) to document exactly what our decisions were on how we applied the rubric to each data source, what additional documentation was needed, and how to assign a score. This scoring process sheet provided a roadmap we could consult as we worked and proved to be the single most important factor in helping us to maintain a consistent approach to evaluation and scoring.

Conclusion
Creating the research process survey and scoring rubric involved challenges. With our differing backgrounds and terminology it was often difficult to accurately communicate opinions and viewpoints. Establishing a common language and understanding of each team member’s perspective was key to working together effectively and was a major factor in the success of this assessment project. The matrix of common concepts was our touchstone as we developed our survey and rubric and resulted in a more productive work environment and potentially richer assessment result than we had initially envisioned.

This project had more than just the assessment of a tutorial as part of its agenda. An important aspect was the outreach and partnership building with key members of the campus community. This collaboration has led to an invitation to the library from the Writing Program to provide input in developing new information literacy learning outcomes and has the potential to allow the library to align with the Writing Program in a way that could provide a trajectory that goes well beyond this collaborative project.

Librarians are an essential part of the diverse community of campus stakeholders focused on student success. Establishing a mutually understood and shared foundation of concepts is critical if we wish to collaborate successfully with these stakeholders on assessment projects and ultimately integrate information literacy into campus learning outcomes and student success goals. The process of developing and normalizing a collectively accepted understanding of information literacy between librarians, faculty, and institutional research partners was more of a challenge than anticipated and required research, discussion, documentation, and patience to achieve.

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Endnotes


5. Ibid., 512.


Appendices

Appendix A
Information literacy matrix: standards, Writing Program objectives, library skills (https://tinyurl.com/ilmatrix)

Appendix B
Rubric glossary (https://tinyurl.com/rubricglossary)

Appendix C
Rubric for library AiA project with ACRL framework (https://tinyurl.com/rubricaia)

Appendix D
AiA scoring process sheet (https://tinyurl.com/processsheet)