FORGING COLLABORATIVE RELATIONSHIPS BETWEEN SCHOOL AND ACADEMIC LIBRARIANS TO PREPARE ALL STUDENTS FOR THE FUTURE

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This paper reports on collaborations that helped to strengthen connections between academic librarians and secondary school librarians to improve equity, diversity, and inclusion while working together towards the shared goal of preparing all students for college, career, and life. The premise behind this work is that integrated information literacy instruction is a powerful tool in moving towards a more equitable and just society because it can level the playing field for under-served students. We report on cross-institutional collaborations through which we developed a sample information literacy scope-and-sequence document that covers the entire K-20 journey and explored ways to teach information literacy with skills-transfer in mind.

INTRODUCTION

Along their educational journey, students progress through increasing levels of difficulty in a predictable way, passing through several transition points. The transition from high school to college is perhaps the most challenging of all, considering the advancement in academic rigor and shift in expectations. Postsecondary education has its own set of discursive practices that determine how students are expected to think, communicate, inquire, and develop knowledge.[1] At the beginning of the college experience, basic-level courses, such as English Composition, are designed to acculturate students to the academic requirements of college, but underprepared students start at a disadvantage. Research shows that students who enter college underprepared are more likely to withdraw from classes or leave college altogether.[2] Many students who fail a large general education gateway course, even students who are in good standing in other classes, drop out of college.[3] Inequities in access to important resources like librarians and

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libraries during grades K-12 may be one factor leading to underpreparedness. A recent study by Curry-Lance, Kachel, and Gerrity reports that nationally the number of full-time school librarians declined by nearly 20% between 2010 and 2019.[4] Even more concerning is the fact that underrepresented groups and students in smaller schools and more rural areas are more likely to be without a school librarian, resulting in what Curry-Lance, Kachel, and Gerrity call "library privilege."[5] Such education inequities deprive students of opportunities to learn essential skills like information literacy.

In a previous study, Diekema, Gerrity, and Mitchell examined student transitions along the so-called "instructional pipeline" (kindergarten to college) from the perspective of the people providing information literacy instruction, namely school and academic librarians in the state of Utah. One interesting finding concerned student preparedness for the next level of schooling or the workforce in case of university students based on their information literacy skills. While most librarians thought their students were reasonably well-prepared to transition to the next level, the receiving librarians thought these new students were lacking the necessary information literacy skills to succeed.[6] This discrepancy suggested there was work to be done to make information literacy instruction more coherent along the pipeline.

When we presented this work, we found that librarians were extremely eager to collaborate to ensure their students would be better prepared for the information-based research that lay ahead. Findings from this study suggested that librarians along the instructional pipeline could "connect and collaborate cross-institutionally [and] … would benefit from a scope and sequence document that extends across the entire educational spectrum to allow systematic integration of information literacy instruction throughout the curriculum."[7] Subsequently, opportunities arose to collaborate with secondary school librarians (those working in middle and high schools) to initiate this kind of work. By intentionally working with others at their institutions, and across institutions, school and academic librarians can be agents for change and support students in their transition, specifically in information literacy. In this paper we will share our initiatives on how to involve secondary school librarians in cross-institutional collaborations, how to start an information literacy scope-and-sequence document that covers the entire K-20 journey, and how to teach with the transfer of information skills in mind.

INTEGRATED INFORMATION LITERACY INSTRUCTION AND EQUITY

Southern Utah University (SUU) has required students to take a general education (GE) information literacy course for more than twenty years. Traditionally a stand-alone course, in 2019 the university adopted an integrated model that co-requires the course INFO 1010: Information Literacy[8] with ENGL 2010: Intermediate Writing. Students take both classes simultaneously, applying information literacy concepts and skills learned in INFO 1010 to research for their assignments in the corresponding section of ENGL 2010. In most sections of these classes, the INFO 1010 instructor visits the ENGL 2010 class at strategically advantageous points throughout the semester. In these sessions, INFO 1010 instructors teach concepts and skills that correspond directly to the stage of the research process happening in the ENGL 2010 class. Not only has this co-required model led to improved student performance in both classes, but it has also helped to narrow equity gaps among students of diverse backgrounds.

By requiring students to take a one-credit information literacy course with intermediate writing, students have been more successful in both courses, especially underserved students who might otherwise not have passed either class. One trend that emerged in the early stages of piloting of the co-required model was a significant decrease in DFWI (D and F grades, withdrawal, and incomplete) rates in both courses among all student demographics, but especially among underrepresented student groups. These findings are in line with research carried out by Koch[9] and Koch, Prystowsky, and Scinta,[10] who examined introductory general education college courses that commonly have large failure rates such as English Composition, Introduction to Biology, etc. When these studies unpacked the high DFWI rates, they found that underrepresented groups had much higher DFWI rates compared to other groups.[11] One possible explanation for student success in the co-required English/information literacy model is that the built-in research support provided by the librarian through INFO 1010 levels

the playing field, allowing students who never had access to a certified school librarian to have support that does not require extra time outside of class. The co-required model proved to be a powerful form of collaboration at the college level.

As part of the transition to the co-required model, the Library Instruction Team at SUU trained a handful of local and regional school librarians to teach INFO 1010 through Concurrent Enrollment.[12] One outcome was collaboration between these high school librarians and English teachers to use the co-required model in their high schools. This shift brought with it the potential to positively impact students in rural high schools, preparing them better for the rigors of college. Word of this cross-institutional collaboration eventually spread, leading to an opportunity to bring the integrated information literacy instructional model used at SUU and its potential benefits to middle and high schools in Salt Lake City through professional development training.

TRANSFERRING THE INTEGRATED MODEL TO HIGH SCHOOL AND MIDDLE SCHOOL

A partnership between K-12 and academic librarians can be born out of interest, necessity, serendipitous networking, or any number of other motivating factors. Though these two groups of librarians tend to be siloed, the successful transition of students along the pipeline from high school to higher education is a unifying common interest. In the case of the concurrent enrollment partnership described earlier, a history of collaboration was already established between the SUU librarians and the high school librarians in their local, "feeder" school district from previous grant projects and practicum placements for pre-service school librarian training. SUU librarians approached their high school colleagues when seeking to expand their cohort of trained instructors for the general education information literacy course offered to both undergraduates and dual-enrollment high school students. However, it was the Director of Teaching and Learning for the Salt Lake City School District (SLCSD) who reached out to inquire about the possibility of a collaboration as she planned professional development opportunities for the secondary school librarians in her district at the beginning of the 2021-2022 school year. They discussed the concurrent enrollment training that the SUU librarians had provided for their local school district, and it was determined that it could be customized for the unique needs of the SLCSD librarians as well.

Diekema, Gerrity, and Younkin agreed to modify this training for the needs of K-12 colleagues in Salt Lake City. It was decided that the collaboration would take place across three different four-hour workshops in December, February, and April across one academic year. The workshops were designed to provide theory but also built in plenty of time for application. Because the model at SUU relies heavily on collaboration between the academic librarians and their English department colleagues to deliver integrated information literacy instruction, it was agreed that each of the SLCSD Librarians would also bring a subject-area classroom teacher with whom they would either initiate or deepen an instructional partnership. This approach aligned with the Utah State Board of Higher Education statement on the role of school librarians in the state: "Highly qualified teacher librarians, working in collaboration with content area teachers, provide research- and inquiry-based instruction in order to develop the students' ability to find and use information to support their academic learning and personal development."[13] To guide the implementation of this training, we provided a sample scope and sequence document that mapped out integrated information literacy instruction across K-12.

The first workshop established the purpose of the professional development series, providing a primer on the research behind the importance of teacher and librarian collaboration and curriculum integration as well as the way in which integrated instruction can address equity, diversity, and social justice issues in school communities. While perhaps not news to our K-12 library colleagues, it felt important to revisit this research for the invited classroom teachers' benefit. We detailed the way that the co-requisite model takes place at SUU and provided an overview of the goals of the workshop series which would culminate in a collaboration showcase during the final meeting. Some initial time to plan around the unique instructional needs and goals for each teacher and librarian pairing was provided. The secondary librarian and teacher pairings were challenged to think about what information literacy skills students in their respective schools were lacking, and especially

which student populations might be missing these skills. They were asked to address both by designing an assignment and co-teaching it before the next meeting. The second workshop provided a review of the previous session before focusing on the development of a scope and sequence document. Research-based best practices in assignment design were also covered during this session. For the final workshop, the attendees were asked to prepare a 15-minute teaching demonstration to share with the group showcasing their collaborative information literacy teaching. In this session, school librarians and their collaborative partners were asked to implement their instructional plans and report the results. This resulted in opportunities for school librarians to integrate grade-level-appropriate information literacy instruction into the classrooms of their teaching partners.

TOWARD A K-20 INFORMATION LITERACY INSTRUCTION SCOPE AND SEQUENCE

As discussed earlier, we created a sample scope and sequence document[14] for the SLCSD professional development training to guide the planning of grade-level appropriate information literacy instructions. This scope and sequence document was based on the college-level information literacy skills taught in SUU's INFO 1010 course mapped backwards from 12th grade to kindergarten and on Utah Core Standards for Library Media, which state:

> The school library program is critical to the learning process and student academic success. The necessary skills for college and career-ready students include being literate in a wide range of digital, visual, textual, and technological formats. Students need to be able to access, evaluate, and process information strategically and methodically to make informed decisions and create products involving critical thinking skills.[15]

A scope and sequence document typically outlines what will be taught, when it will be taught, and can include the desired learning outcomes. It is designed to be flexible in nature. In the state of Utah, a scope and sequence of school library standards already exists for grades K-5, but has not yet been formalized for the secondary level.[16] We thought it would be useful to begin the process of creating a scope and sequence document through the collaboration between SUU and SLCSD and extend it across the pipeline to include the college-level learning outcomes as well. This effort was approached in two stages. First, a template was introduced in the second professional development session to encourage the collaborative teacher and librarian pairings to unpack a specific Library Media Standard,[17] including essential questions and enduring understandings and how those should be met across the specific grade-levels served. The second stage was a broader picture of the entire pipeline; mapped backwards from the learning outcomes from the college-level information literacy course, to how those skills can be scaffolded in secondary education and included the K-5 scope and sequence as well.

Such a scope and sequence would guide the teaching of information literacy skills at each grade level. An intentional progression from one level to the next would, in theory, allow students to transfer knowledge and skills as they travel along the instructional pipeline. By the time the transition from high school to college then occurs, a student would have internalized information literacy skills essential to success in college.

EXAMPLES OF INTEGRATED INFORMATION LITERACY INSTRUCTION IN MIDDLE AND HIGH SCHOOLS

As a result of the professional development sessions school librarians of the Salt Lake City School District (SLCSD)[18] developed instructional projects. Secondary school librarians developed and initiated research-focused, collaborative projects with a content area teacher. These projects were designed to teach students information literacy skills suited to the instructional needs of the classroom teacher. The lessons utilized instructional principles designed to provide all students with equitable opportunities to participate in meaningful work. Projects integrated Utah Library Media Standards with language arts, science, or social studies Utah core standards

which addressed the school-level goals at each site. Students gained experience using physical and digital library resources, were given guided instruction as well as time to practice and put the skills to use, topics were open-ended, and student generated. Principles surrounding the evaluation of materials for reliability and quality, including conducting lateral searches, were foundational to the projects in all schools. What follows are two examples of these projects.

Black History Month Project at Northwest Middle School

At Northwest Middle School,[19] the library technology teacher collaborated with a social studies/academic skills teacher on a Black History Month project completed by individual students. The collaborative project served approximately 180 students from the general population of the school. The library lessons provided guided practice to use a website evaluation strategy called CRAAP, in which students examine the currency/timeliness of sources, relevance, authority, accuracy, and purpose.[20] Students were linked directly to two website examples selected by the librarian and given a worksheet to compare what they found. The students then conducted their own searches for material on their research subject. The project culminated in an artistic poster highlighting the accomplishments of a notable Black American, and students evaluated the usefulness and application of their new skills to their own life through an exit ticket. On teacher reflection, it was acknowledged that the ability of A.I. to create content will challenge the usefulness of using CRAAP to evaluate websites. In future lessons, the librarian plans to instruct students in lateral reading skills, which better aligns to the information literacy instruction being conducted in other middle and high schools in the district.

AP Human Geography Research Project at East High School

For the past five years, East High School has been working to de-track its core classes so that all 9th and 10th grade students experience a consistent foundational pathway to advanced courses as they continue through high school. This has resulted in every 9th grader being automatically enrolled in Pre-AP English, AP Human Geography, Secondary Mathematics I Extended, and Biology (soon to be a pre-AP course), and an elimination of the honors designation on classes.[21] East High's library technology teacher partnered with the six AP Human Geography teachers to conduct a current event research project in all 17 sections of the course, serving approximately 425 first-year students. Students were placed in groups of 3-4 based on a topic they selected from a suggested list or their own approved topic. The sessions with the librarian gave a brief overview of each topic and introduced students to lateral reading skills. The librarian used sample topics to provide guided practice in which classes collectively evaluated the information found using a search engine, and modeled ways to continue a search using new keywords generated by the results. Students then spent two class sessions working together, sometimes in the library and sometimes in their classrooms, to create a poster on their research. Combined groups of students from sections AP Human Geography offered at the same time on the schedule presented their research to each other. This project for all 9th grade students is scheduled to continue into future school years, building on lateral reading skills they developed in middle school and giving students supported practice to ready themselves for higher-level projects they will complete as they progress through high school.

Through these projects it became clear that backwards design from the college level can inform the work of librarians all the way through the elementary years. The development of information literacy skills, as evidenced through the K-12 Library Media Standards, intensifies during the secondary years, and provides opportunities for all students to develop their skills, transfer them to new learning situations throughout middle and high school, with the intent of carrying these skills into college and career after graduation.

DISCUSSION AND FUTURE WORK

Across the educational pipeline, each level of schooling is traditionally siloed from the next. By initiating collaborative partnerships between librarians at each of these critical touchpoints in a students' academic journey, we can more effectively share limited resources, properly scaffold instructional practices, and better prepare all

students with the information literacy skills needed to succeed in today's world. In our experience, these partnerships are mutually beneficial for students, teachers, and librarians across the pipeline. This work was heavily influenced by the belief that information literacy is a vital skill for success in today's academic and professional world and that those skills are owed to all students, not just those with the privilege to access extra-curricular resources.

In the instructional pipeline study mentioned above, we examined information literacy education in the state of Utah and found that "most librarians who systematically integrate information literacy instruction throughout a student's education are school librarians in the K-5 realm," where an existing scope and sequence was already in place. The efforts described in this paper attempt to expand that approach across secondary and postsecondary library instruction, but they are still preliminary in nature.[22] While classroom teachers were included in the professional development and resulting instructional partnerships, it would also be beneficial to invite school and district level leaders to future iterations of the instructional showcase. Including these administrators could lead to needed advocacy for school library staffing, support for these collaborative endeavors, and fostering positive perceptions of librarians as instructional leaders in their school communities.

Further development of the scope and sequence could positively impact the educational system in our own state. Though a comprehensive K-20 scope and sequence document has been initiated, next steps should include involving other stakeholders to complete and formalize this as a resource for the entire state of Utah. We can approach the state school library professional organization, among others, for input before approaching the state board of education to formally adopt and make the scope and sequence publicly available through the statewide education network. This K-20 scope and sequence document can be shared as a model for other states to adapt for their own library standards.

CONCLUSION

As pointed out in this paper, several factors within the education system perpetuate equity and achievement gaps for underserved students, but there are some things librarians can do to mitigate this. First is to adopt, insofar as is possible, an integrated model of information literacy instruction at the postsecondary level.[23] Librarians at colleges and universities with credit-bearing information literacy courses can advocate for co-requiring these courses with required writing courses.[24] Where IL courses are not required, collaborative relationships with faculty could be deepened by strategically integrating targeted information literacy instruction into courses wherever possible. Second, academic librarians can initiate partnerships with school librarians in K-12 schools to map out a scope and sequence of integrated information literacy instruction throughout primary and secondary education. School librarians can develop instructional partnerships with subject-area teachers to build grade-level-appropriate instruction into classroom lessons and assignments. While we have had promising results with these integrations, both at the university and K-12 levels, we acknowledge that the problem of underfunded or nonexistent libraries in many school districts remains. Initiating the collaborative work described above has opened the way to extend integrated information literacy instructional practices into lower grades, initiating lessons with the potential to close equity gaps and create an educational progression that scaffolds the transfer of essential skills and knowledge across the entire instructional pipeline.

ACKNOWLEDGEMENTS

APPENDIX

The following is the scope and sequence document used in the professional development training with the Salt Lake City Public School District.

Skills	K-5	6-12	College Skills
Getting background information	K: With guidance, identify back- ground knowledge and information needed. 1–2: With guidance, identify back-ground knowledge and predict information needed. 3–4: Identify and record information already known and predict information needed. 5: Identify, summarize, and evaluate for relevance the information already known and determine information needed.	Read, listen to, view, and integrate information to build background knowledge. Analyze the task and information needed in terms of students' previous knowledge.	Identify a broad topic, then use background information to narrow the topic to a scope appropriate for the task.
Developing a research question	K: With guidance, narrow the information topic 1–2: With guidance, explain how topics can be broadened or narrowed 3–4: Demonstrate how topics can be broadened or narrowed 5: Evaluate and revise the topic	Identify the information needed. Analyze the task to identify the information problem. Seek clarification from teachers and others. Compile and refine a range of significant questions by considering the amount, format, location and type of information to guide inquiry. Select and narrow or broaden topics into a manageable focus.	Formulate guiding questions that relate directly to relevant details of the topic. Questions are open ended, and require more than a yes/no answer, and cannot be answered by a single source.
Creating search statements	K: With guidance, list possible keyword search terms. 1–2: With guidance, identify possible keyword search terms and distinguish between narrow and broad terms. 3–4: Generate and broaden or narrow possible keyword search terms, and critique them for relevance. 5: Generate and broaden or narrow possible keyword search terms, and critique them for relevance.	Develop an information search strategy. Select and narrow or broaden keyword search terms. Revise and focus search by demonstrating the effective use of location skills and advanced search strategies.	Derive the most relevant keywords/terms from research questions, as well as synonyms or alternative terms. Select the most relevant search tool (database, etc.). Formulate search statements that conform to search functionality of the search tool, such as Boolean operators.

Skills	K-5	6-12	College Skills
Locating information	K: Understand the concept of finding information sources through various tools (e.g., signage, catalogs). 1–2: Understand and demonstrate the concept of finding information sources through various tools (e.g., signage, catalogs). 3–4: Demonstrate use of the library catalog, databases, and web browsers using selected key- word, subject, author, title, and series terms. 5: Investigate sources using library catalogs, databases, and web browsers. Find possible sources using Boolean indicators and other search strategies.	Identify potential information sources and access tools. Understand the library layout, the library classification system, and the circulation process. Demonstrate how to navigate library catalogs, web browsers, and databases. Locate sources with divergent perspectives that answer research questions by considering primary and secondary sources, general and subject-specific references, and scholarly and popular articles. Locate potential digital, print, artifacts and human sources to meet the research need.	Identify potential information sources and access tools relevant to the task (subject, discipline, etc.). Understand the library layout, the library classification system, and the circulation process. Demonstrate how to navigate library catalogs, web browsers, and databases. Locate sources with divergent perspectives that answer research questions by considering primary and secondary sources, general and subject-specific references, and scholarly and popular articles. Locate potential digital, print, artifacts, and human sources to meet the research need.
Evaluating information	K: With guidance, investigate and select possible information sources based on criteria. 1–2: With guidance, investigate and select possible information sources based on criteria. 3–4: Analyze, investigate, and select possible information sources based on criteria. 5: Investigate, select, and evaluate possible information sources based on criteria.	Evaluate print and digital sources for relevancy, accuracy, validity, credibility, availability, currency, authority, accessibility within time limits, and ease of use. Assess ability to select sources that are current, valid, authoritative, and relevant to the task. Apply critical thinking skills to evaluate and select information in terms of relevance, accuracy, validity, reliability, currency, authority, completeness, format, point-of- view, and timeliness. Distinguish between fact and opinion and evaluate for the presence of bias, prejudice, or propaganda.	Evaluate print and digital sources for relevancy, accuracy, validity, credibility, availability, currency, authority, accessibility within time limits, and ease of use. Assess ability to select sources that are current, valid, authoritative, and relevant to the task. Apply critical thinking skills to evaluate and select information in terms of relevance, accuracy, validity, reliability, currency, authority, completeness, format, point-of- view, and timeliness. Distinguish between fact and opinion and evaluate for the presence of bias, prejudice, or propaganda.

Skills	K-5	6-12	College Skills
Synthesizing information	K: With guidance, organize information using sequencing, webbing, graphic organizers, storyboarding, etc. Draw conclusions. 1–2: With guidance, organize information using sequencing, webbing, graphic organizers, etc. Draw conclusions. 3–4: Outline, organize, and synthesize information to draw conclusions about information questions. Support conclusions with evidence. 5: Outline, organize, and synthesize information to draw conclusions about information questions. Support conclusions with evidence.	Organize information from multiple sources. Establish a clear purpose for the learning product. Analyze and organize information to support conclusions. Use technology and other information tools to integrate and organize textual, numerical, and pictorial information from multiple sources. Evaluate critically whether or not the selected information supports the proposed conclusions. Monitor gathered information for gaps or weaknesses and seek additional sources as necessary.	Organize information from multiple sources. Establish a clear purpose for the learning product. Analyze and organize information to support conclusions. Use technology and other information tools to integrate and organize textual, numerical, and pictorial information from multiple sources. Evaluate critically whether or not the selected information supports the proposed conclusions. Monitor gathered information for gaps or weaknesses and seek additional sources as necessary.
Citing information	K: With guidance, identify the source of information used. 1–2: With guidance, identify the sources of information used. 3–4: Cite sources appropriately and avoid copyright violations, including plagiarism. Summarize and quote appropriately. 5: Cite sources appropriately and avoid copyright violations, including plagiarism. Summarize and quote appropriately.	Follow ethical and legal guidelines in using information, avoiding plagiarism and copyright violations. Credit appropriate sources using accepted citation format.	Follow ethical and legal guidelines in using information, avoiding plagiarism and copyright violations. Credit appropriate sources using accepted citation format.

NOTES

1. Folk, "Exploring the Development of Undergraduate Students' Information Literacy through Their Experiences with Research Assignments," 1040.
2. Center for Community College Student Engagement, *A Matter of Degrees: Promising Practices for Community College Student Success (A First Look)*, 7.
3. Koch, "Big Inequity in Small Things: Toward an End to a Tyranny of Practice," 3.
4. Curry-Lance, Kachel, and Gerrity, "The School Librarian Equity Gap: Inequities Associated with Race and Ethnicity Compounded by Poverty, Locale, and Enrollment," 95.
5. Curry-Lance, Kachel, and Gerrity, "The School Librarian Equity Gap," 85.
6. Diekema, Gerrity, and Mitchell, "Information Literacy in Utah: A State of the State," 239-240.
7. Diekema, Gerrity, and Mitchell, "Information Literacy in Utah: A State of the State," 242.
8. INFO 1010: Information Literacy is a one-credit required GE course that covers the research process in seven learning modules. The core concepts and skills taught include background information searching, scoping a topic, writing a research question, database searching, information evaluation, and information synthesis.
9. Koch, "It's About the Gateway Courses: Defining and Contextualizing the Issue."
10. Koch, Prystowsky, and Scinta, "Maximizing Gateway-Course Improvement by Making the Whole Greater Than the Sum of the Parts."
11. Koch, Prystowsky, and Scinta, "Maximizing Gateway-Course Improvement by Making the Whole Greater Than the Sum of the Parts," 106.
12. Concurrent enrollment, sometimes called dual enrollment, programs allow high school students to take college classes before

graduation to prepare students for college while picking up credits at a reduced cost. According to the National Center for Educational Statistics, more than 80% of American high schools offer concurrent or dual-enrollment programs. See more at https://nces.ed.gov/pubs2020/2020125/index.asp.

13. Utah State Board of Education, "Welcome to Library Media."
14. In Appendix.
15. Utah State Board of Education, "Welcome to Library Media,"
16. "Elementary Library Media Scope and Sequence."
17. See https://www.schools.utah.gov/curr/librarymedia for Utah Core Standards for Library Media.
18. SLCSD educates 21,460 students, of whom 58.4% are minority, and 52.3% are low-income. This district has 27 elementary schools and 5 middle schools, which feed to 3 traditional high schools with 2 alternative/online high school options. There is a full-time certified teacher librarian in every school K-12. See https://www.slcschools.org/schools/district-demographics for more information.
19. Northwest Middle school has a 92% minority and 89% low income student body.
20. Blakeslee, Sarah. "The CRAAP test." Loex Quarterly 31, no. 3 (2004): 4.
21. East High school's student body is 66% minority and 53% low income. East's effort to de-track core courses replicates a model used by Evanston (Illinois) Township High School to close the opportunity gap and increase the participation rate in advanced placement coursework and AP tests for traditionally underrepresented students. See this report: https://www.pbs.org/newshour/show/high-school-shrinks-achievement-gap-setting-high-bar.
22. Diekema, Gerrity, and Mitchell, "Information Literacy in Utah: A State of the State," 241.
23. Here, the authors acknowledge and empathize with the enormous challenges librarians face in attempting to expand information literacy instruction across the curriculum at their institutions.
24. If this is not possible due to high numbers of sections of the writing courses, librarians can provide information literacy modules to be integrated into course content.

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