

Building Community College Library Capacity for Supporting Students' Data Literacy Needs

Introduction

The University of North Texas (UNT) Department of Information Science seeks \$249,998 in grant funding from the **IMLS Laura Bush 21st Century Librarian Program**. This grant will be used to facilitate a two-year **implementation project** in collaboration with ACRL Community and Junior College Libraries Section (CJCLS). The project aims to equip community college librarians to be literacy leaders, fostering the academic success of community college students in data literacy. To achieve this objective, the project will create an accessible and comprehensive toolkit for community college libraries, facilitating the integration of data literacy principles and practices into their services and programs. Additionally, it will offer webinar-based workshops as part of its initiatives. This project supports the Laura Bush 21st Century Librarian Program goals and objectives, specifically Goal 3 and Objective 3.4.

Project Justification

In an ever-evolving world characterized by the ubiquity and impact of data, the education of students is now closely intertwined with data literacy. As an integral facet of information literacy, students must learn how to identify, process, analyze, manage, evaluate, and effectively use data. Nevertheless, educators often struggle to make abstract and complex data literacy concepts relatable to real-life situations and share the proper knowledge with their students due to a lack of supporting resources and tools.

Community colleges (CC) enroll diverse students with varying backgrounds, skill levels, and academic readiness, which poses a challenge for faculty and librarians adapting teaching methods to meet their diverse needs. This challenge extends to the realm of data literacy education within community colleges. In our planning project¹ (RE-252374-OLS-22), we discovered that CC faculty task their students with working with data in their respective subject fields, but there is a desire for more guidance on how to better equip their students to thrive in a data-driven world. CC librarians express keen interest in gaining a deeper understanding of data literacy and its integration into the information literacy programming they already administer. While there is certainly a burgeoning awareness of the importance of data literacy, CC faculty and librarians, who frequently contend with time management challenges and limited resources for professional development, find themselves wrestling without a clear starting point.

To bridge this divide, we propose developing a “Data Literacy Toolkit for Community College Libraries,” designed to educate and empower CC librarians, equipping them with the necessary knowledge and skills required to enhance their support for students and faculty in data literacy. It aims to prepare CC librarians to embed data literacy principles and practices into their programs and services. We will adapt the format of toolkit development and webinar outreach pioneered by Davis and Subramaniam in their ConnectedLib² program to support librarians.

Project Work Plan

Project Activities:

- 1) Conduct a survey of CC instructors: Drawn from the findings of our planning project, we will design and distribute a nationwide survey to CC instructors. The targeted instructors include full-time professors, adjunct instructors who teach discipline-specific subjects, and librarians who teach literacy courses. The goal of the survey is to investigate how CC instructors use data in their instruction, pinpoint the resources they recommend to their students for assistance with data-related matters, and uncover challenges they encounter while teaching with data. The survey results will help the project team develop the blueprint of the toolkit.
- 2) Conduct design sessions with project partners: The project team will conduct virtual design sessions with CC faculty and librarians. Our goal is to hold at least four sessions, each involving three to four faculty members and three to four librarians, resulting in 15 CC faculty and 15 librarians participating in the design sessions. These sessions aim to bring faculty and librarians together to discuss course examples in

¹ <https://dlcc.ci.unt.edu/>

² <https://connectedlib.github.io/>

which faculty assign students tasks involving data work. The goal is to identify areas where libraries can contribute and to pinpoint opportunities for enhancing data literacy competencies within the curriculum. Additionally, the sessions will explore how existing information literacy instructions can be adapted or enhanced to more effectively support data literacy competency. The outcomes of the sessions will inform the foundational elements of the toolkit.

- 3) Develop and improve the toolkit: The toolkit consists of a series of modules introducing data literacy concepts through short videos, activities, use cases, and tools, along with recommended practice, instructional activities, and resources for teaching data literacy. Once the first iteration of the toolkit is ready, the project team will conduct field testing with approximately 10 to 15 CC librarians. Recruitment of testing participants will be assisted by our project partners and their regional college connections. Using feedback from participants, we will refine the toolkit.
- 4) Develop and host webinar-based workshops: The project team will develop and host a series of webinars on data literacy for community colleges in collaboration with ACRL CJCLS³. The first webinar will feature presentations of the cases identified during the design sessions, wherein CC faculty will share their use of data in class and discuss strategies to address students with diverse needs. The second webinar will focus on practical data tools and techniques suitable for educators in community college settings. The third webinar will focus on training CC librarians on the toolkit developed from the project and sharing additional resources informed by project findings. The last webinar will utilize a roundtable format, facilitating discussions among community college librarians on data literacy within a community college context and exploring how libraries can best support this endeavor.

Project Team: The Project Team comprises Jeonghyun Kim as PI, along with Lingzi Hong and Sarah Evans as Co-PIs, all from UNT. ACRL CJCLS will serve as a formal partner⁴, collaborating in developing and hosting webinars focused on data literacy; they will support us in disseminating and promoting the toolkit. The individuals who participated in our planning project and expressed a strong desire to participate in our follow-up project will be invited to serve as our project partners⁵. Additionally, we will invite individuals from diverse regions and communities to join and contribute to our efforts, reflecting the richness of diversity and inclusion in our initiatives. The project team also includes the following advisory board members: Heidi Julian, University at Buffalo Graduate School of Education; Abebe Rorissa, the School of Information Sciences at University of Tennessee; and Daniella Smith, Department of Information Science at UNT.

Project Results

The project deliverables, including the toolkit and webinar recordings, will be published under CC BY 4.0 to allow for broad use, reuse, and dissemination. They will also be deposited to a GitHub repository and UNT institutional repository to ensure long-term accessibility. This project will not only enhance the capacity of community college librarians to act as effective literacy leaders and improve their literacy instruction practices but also position them as campus advocates within their respective institutions. This alignment will better address the needs of over 9 million students enrolled in U.S. community colleges, comprising approximately 41% of all undergraduate students in the country.

Budget

We request a total budget of \$249,998. This budget estimate includes 1) Salaries and Wages: \$52,214; 2) Fringe Benefits: \$12,573; 3) Travel: \$12,725; 4) Supplies, Materials, and Equipment: \$6,360; 5) Student Support: \$77,554 for research assistants' salary, fringe benefits, and tuition; 6) Other Costs: \$5,000 for ACRL CJCL, \$18,000 for project partners' honorarium, \$1,000 for survey participants' incentives, \$4,000 for webinar speakers' honorarium, \$6,000 for field test participants; and 7) Indirect Costs: \$54,570.

³ ACRL CJCLS (<https://acrl.ala.org/cjcls/>), a division of ALA, serves to share common areas of interest to enhance library services and librarianship in libraries and learning resource centers in two-year institutions and to support the educational programs of these institutions.

⁴ Jill Sodt, Vice-Chair (23-24)/Chair Elect (24-25) ACRL CJCLS, agreed to be part of the project.

⁵ These individuals include Walter Butler, Director of Library and Information Services; Rosemond Moore, Associate Professor of Business Administration; Jesús Campos, Dean of Library & Learning Support Services; Laura Mondt, Coordinator of Research and Instruction Services; Bradford Eilerling, Assistant Professor of Architecture; Leonor Crumley, Program Director of Medical Laboratory Technology; Preeti Kulkarni, Instructor of Economics; Nathasha Alvarez, Instruction librarian, and more.