

Toward an understanding of Data Literacy Needs in Community Colleges: A Conceptual Framework

Abstract : This work is part of a project that seeks to 1) explore the perceptions of data literacy in community colleges, 2) identify the foundational data literacy skills and knowledge expected to be developed in community colleges, and 3) develop data literacy action plans for community college libraries. As a guiding principle behind the project, this work focuses on developing a conceptual framework to understand data literacy needs in community colleges. The conceptual framework was developed in two phases: first, we examined the literature published on data literacy to reveal the key aspects of related research trends. Second, we conducted a comparative analysis of seven data literacy competency frameworks to identify a set of common core competencies.

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Introduction

Data literacy—reading, creating, understanding, and communicating data as information—is an essential skill for personal and professional success. Data literacy is an important learning outcome in higher education, so new programs and initiatives are needed to introduce and build students' skills. Since community colleges are dynamic and serve some of the most diverse student populations, they can help build these skills. They also balance community aspirations with changing economic and industrial conditions in local, state, and regional labor markets. Community college libraries could help students with data literacy needs, but little research has been done in this area.

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Objective

This work is part of a larger project that aims to investigate how data literacy is understood within community colleges, determine the foundational data literacy skill, knowledge that students are anticipated to develop in community colleges, and create data literacy action plans for community college libraries. This poster will propose a framework for studying data literacy by conceptualizing data literacy and explicating the core content and competencies associated with it.

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Methodology

To create the framework and develop surveys to comprehend the requirements of data literacy in community colleges, we conducted the following:

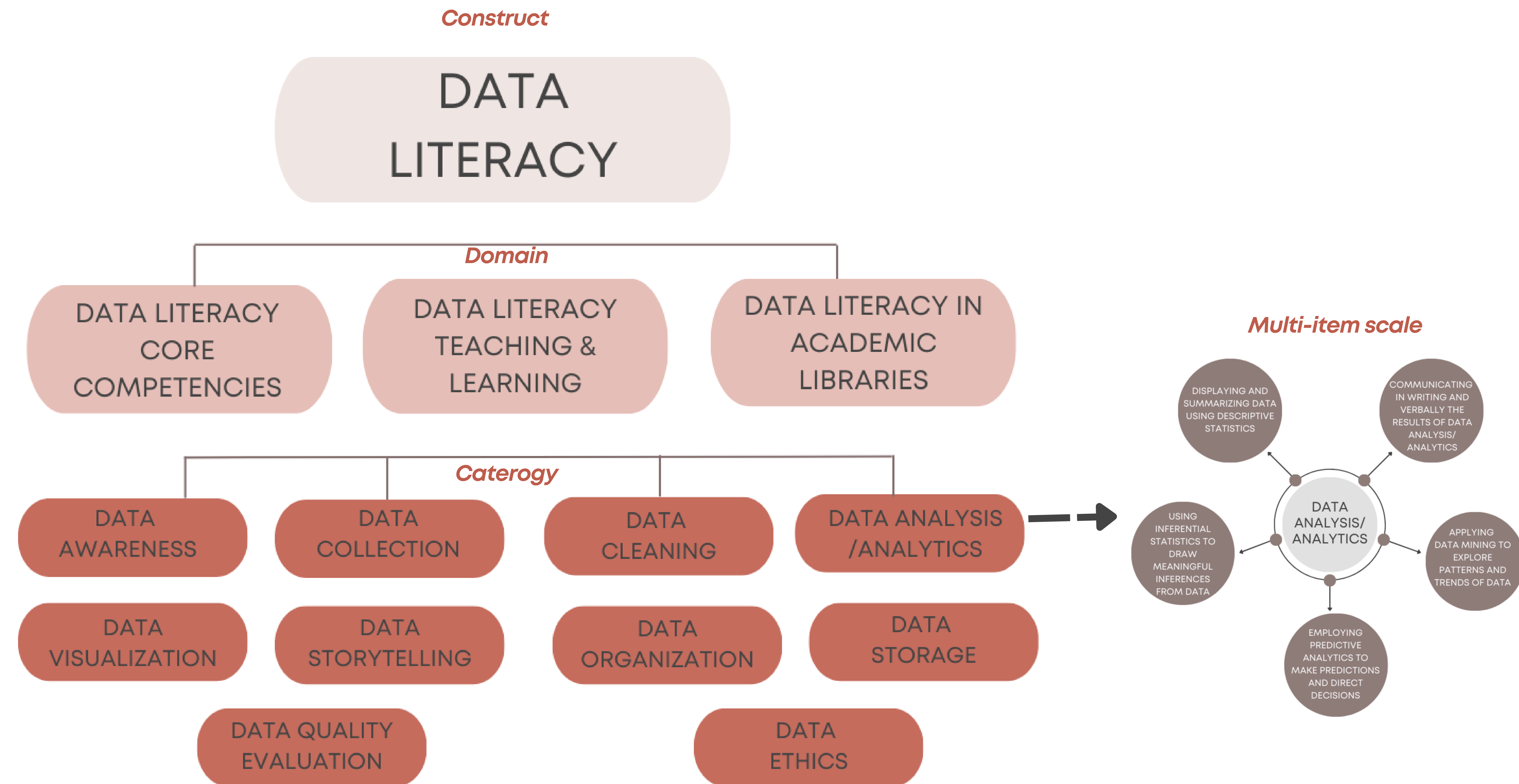
- A topic modeling and visualization analysis of abstracts of the published research on data literacy (N = 206) to elucidate the primary facets of the relevant research trends, and
- A comparative analysis of existing data literacy competency frameworks (N = 7) to identify a set of common core data literacy competencies

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Data Literacy Framework

Outcome:

1. Describe what data literacy is and what comprises data literacy
2. Demonstrate the value of data literacy in higher education
3. Identify and compare data literacy competency frameworks as data literacy assessment tools



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Currently Underway

Survey of community college students:

- Do community college students consider themselves to be data literate?
- What knowledge and skills do community college students see as necessary to become data literate?
- How do community college students assess their own knowledge and skills regarding data literacy?

The following four community colleges are currently participating in the survey study: South Texas College, Sierra College, Panola College, and Wharton County Junior College

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Upcoming

Interview with community college faculty and librarian:

- What are community college faculty and librarians' understanding of what data literacy is?
- What are community college faculty and librarians' views of the importance of data literacy in community college education?
- Are community college faculty and librarians taking any actions to develop student data literacy competency?

If you are interested in participating in this study, please contact us at dlcc@unt.edu

If you would like to learn more about this interview, please visit <https://dlcc.ci.unt.edu/librarian-interview> or scan this QR code

