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Critical Assessment Practices: A Discussion on When and How to Use Student Learning Data Without Doing Harm

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Critical Assessment Practices

A Discussion on When and How to Use Student Learning Data Without Doing Harm

Zoe Fisher, Instructional Designer, Pierce College

Ebony Magnus, Library Manager, Southern Alberta Institute of Technology

Nicole Branch, Associate University Librarian for Learning & Engagement, Santa Clara University

#ACRLInstruction
Today's Outcomes

Attendees will...

● Consider critical approaches to library assessment practices
● Examine trends and implications of libraries using student data through various modalities
● Explore practical approaches and methodologies for implementing critical assessment of student learning
Our Thoughts

Zoe will talk about the current context for library assessment work, emerging trends, and the distinctions between student learning assessment and student surveillance.

Ebony will use a critical assessment frame to consider questions of motivation, accountability, and agency in relation to collection of student data.

Nicole will share her experiences using transformative mixed methods to model developing student learning outcomes for the ACRL Framework for Information Literacy.
What kinds of student learning data do we collect in the library, and why?
We collect data in order to...

- **Provide** services (e.g., collecting identifying information in order to establish borrowing privileges).
- **Measure** existing library services/spaces/collections or anticipate needs for new services/spaces/collections.

Zoe Fisher
@zoh_zoh
#ACRLInstruction
We also collect data in order to...

- **Be accountable** and meet reporting requirements for internal and external stakeholders (e.g., accreditation).
What are some trends in library use of student learning data?
2010
VAL Report

2013-2016
Assessment in Action cohorts

2017
Academic Library Impact

Zoe Fisher
@zoh_zoh
#ACRLInstruction
ACADEMIC LIBRARY CONTRIBUTIONS TO STUDENT SUCCESS: Documented Practices from the Field

January 2015

Zoe Fisher
@zoh_zoh
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Library use increases student success.

Several AiA studies point to increased academic success when students use the library. The analysis of multiple data points (e.g., circulation, library instruction session attendance, online database access, study room use, interlibrary loan) shows that students who used the library in some way achieved higher levels of academic success (e.g., GPA, course grades, retention) than students who did not use the library.
Academic Library Impact: Improving Practice and Essential Areas to Research

Lynn Shihipol Conway
OCLC Research, Senior Research Scientist and Director of User Research

William Harvey
OCLC Research, Consulting Software Engineer

Vanessa Kitzle
School of Library & Information Science, University of South Carolina, Assistant Professor

Stephanie Mikitish
Rutgers University, User Engagement and Assessment Librarian
Suggested Actions (from Academic Library Impact, p.5)

- Know how other academic stakeholders are using learning analytics.
- Research the safeguards needed to ensure student privacy or confidentiality.
- Strategically collect data that can be integrated into learning analytics software.
- Advocate for the inclusion of library data in the volumes of information collected from multiple systems within the academic institution.
- Integrate library data into campus analytics components.
- Work with stakeholders to statistically analyze and predict student learning and success based on shared analytics.
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Library Assessment Conference 2018

Assessing Student Learning in Library Instruction: A Faculty Perspective
Doreen Bradley and Jo Angela Oehrli (University of Michigan)

Information Literacy Assessment for Instruction Improvement and Demonstration of Library Value: Comparing Locally-Grown and Commercially-Created Tests
Kathy Clarke (James Madison University) and Carolyn Radcliff (Carrick Enterprises)

Developing Library Learning Outcomes: Reflecting on Instruction across the Library
Ashley McMullin, Jennifer Schwarz, and Janice Scurio (DePaul University)

What Could We Do, If Only We Knew? Libraries, Learning Analytics, & Student Success
Megan Oakleaf (Syracuse University), Malcolm Brown (Educause), Scott Walter (DePaul University), Dean Hendrix (University of Texas at San Antonio), and Joe Lucia (Temple University)

Library Participation in Learning Analytics Initiatives: Library and Student Perspectives
Michael Perry (Northwestern University); M. Brooke Robertshaw (Oregon State University); Andrew Asher and Kyle Jones (Indiana University); Kristin Briney (University of Wisconsin-Milwaukee); Abigail Goben (University of Illinois at Chicago) and Dorothea Salo (University of Wisconsin at Madison)
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Are we interested in measuring what students *do*, or what they *learn*?
Surveillance of student behavior in library assessment looks like...

- EZ proxy logins
- ID card swipes
- Article downloads
- Circulation records
- Tracking the amount of time students spend in different spaces (physical and online)

... And then connecting these individual actions with individual student performance and achievement.
Surveillance of student behavior in library assessment looks like...

- Correlating library use at 13 different access points with retention and GPA (Soria, Fransen, and Nackerud, 2013). Correlating EZ proxy logins and circulation of physical materials with retention (Murray, Ireland, and Hackathorn, 2016).
- Correlating the use of online library resources with GPA (Eastern Kentucky University from Assessment in Action, 2016).
- Correlating attendance at information literacy one-shot sessions with final course grades and retention (Northwest Arkansas Community College from Assessment in Action, 2016).
In contrast, student learning assessment of information literacy looks like...

- Writing and measuring student learning outcomes.
- Collecting and reviewing samples of student work.
- Reflective discussions among teachers about their pedagogy.
- Revising assignments to improve student learning outcomes.
- Revising student learning outcomes to improve student learning.

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@zoh_zoh
#ACRLInstruction
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- Revising assignments to improve student learning outcomes.
- Revising student learning outcomes to improve student learning.

This kind of work might not get published or fed into a dashboard, but it matters, and it has a huge impact on your students.

Zoe Fisher
@zoh_zoh
#ACRLInstruction
I would like to see academic library assessment that is...

- Qualitative.
- Ethnographic.
- Longitudinal.
- Rooted in conversations around pedagogy, power, and barriers/obstacles to learning faced by students.
- Respectful of students and their experiences, honoring their voices and expertise.

Zoe Fisher
@zoh_zoh
#ACRLInstruction
Recommend Readings Worth Your Time

- "A day in the life: Practical strategies for understanding student space-use practices" (Asher et al, 2016)
- "How do students get help with research assignments? Using drawings to understand students' help seeking behavior" (Beisler & Medaille, 2016)
- "A phenomenographic study of English faculty's conceptions of information literacy" (Boon, Johnston, and Webber, 2007)
- "The phenomenon of information literacy" (Bruce, 1998)
- "Learning outcomes, portfolios, and rubrics, oh my! Authentic assessment of an information literacy program" (Diller & Phelps, 2008)
- Academic Libraries for Commuter Students (Eds. Regalado & Smale, 2018)
- ERIAL Project (www.erialproject.org)
Ebony Magnus
Library Manager, Southern Alberta Institute of Technology
“Assessment is a social and political act, regardless of whether or not an agenda is made explicit.”

DeLuca Fernandez, 2015, p. 5
How do institutional assumptions and agendas shape the student data we collect?

Where does our accountability lie in the creation and use of student data?

Are we engaging students in the creation, analysis, and communication of data and insight?

Ebony Magnus | @ebonymagnus
#ACRLInstruction
"Are we critically analyzing and questioning the rationale of our own governments’ or institutions’ demands for assessment, and the implications on our own libraries, staff, and users?"

Doucette, 2017, p. 293
“Rarely are the people who participate in the research process as participants or “informants” considered to be the primary audience when it comes time to disseminate the research.”

Gaudry, 2011, p. 113
“This decision [to share or not share their data] belongs to the user and not to the library and the user being able to exercise full agency in this decision means fully informed consent with regard to what is collected and how it will be used and managed.”

Hinchliffe, 2018
“By raising consciousness of the ethical and value-based decisions implicit in any assessment context, the practice of assessment truly becomes a complex social practice rather than a collection of technical data gathering approaches that might unwittingly serve power interests unintended by well-meaning individuals.”

Wall, Hursh, & Rodgers, 2014, p. 12
Applying Critical Assessment Practices

1. **Adopt a theoretical stance**
   - Apply critical approaches to the research/assessment process

2. **Research/assess critical issues**
   - Focus on issues of power, social justice, critical consciousness, and the common good

3. **Align methodologies**
   - Select methods that align with the theoretical stance

4. **Apply findings**
   - Use findings to address issues of power, social justice, and the common good

Nicole Branch, @benicolebe
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Nicole Branch, @benicolebe
Transformative Research Paradigms

“recommend the adoption of an explicit goal for research to serve the ends of creating a more just and democratic society that permeates the entire research process” (2003, p. 159).

- Donna Mertens
Elements of Transformative Paradigms

(a) Do the authors openly reference a problem in a community of concern?
(b) Do the authors openly declare a theoretical lens?
(c) Were the research questions (or purposes) written with an advocacy stance?
(d) Did the literature review include discussions of diversity and oppression?
(e) Did the authors discuss appropriate labeling of the participants?
(f) Did data collection and outcomes benefit the community?
(g) Did the participants initiate the research, and/or were they actively engaged in the project?
(h) Did the results elucidate power relationships?
(i) Did the results facilitate social change?
(j) Did the authors explicitly state their use of a transformative framework?

Sweetman, Badiee, & Creswell (2010)
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Nicole Branch, @benicolebe
Research Interest

Problem/concern

- Local learning outcome development
- Assessability
- Critical practice
- Outcome dissatisfaction
- Learning outcomes as the foundation for assessment

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*How might we create local learning outcomes that are meaningful, important, and articulate social justice and critical thinking elements of the Framework?*

Nicole Branch, @benicolebe
Align Methodologies

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Nicole Branch, @benicolebe
Concept Mapping

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Concept Mapping

Concept Mapping Methodology

- Developed by William Trochim
- Integrated mixed methods
- Collaborative engagement of stakeholder knowledge
- Core elements include
  - Brainstorming
  - Sorting
  - Rating
  - Mapping
Concept Mapping & Transformative Paradigm

- Focus on social justice/issues of power
- Engagement of participants as research partners
- Could address an issue in a community
- May be used to affect change/benefit community

Nicole Branch, @benicolebe
Study

- 11 Librarians from across the country
- Subject areas (humanities, STEM, business, assessment)
- Variety of institution types
- Concept “Information has value”
- Conducted entirely virtually

Nicole Branch, @benicolebe
Concept Mapping Procedures

**Define the Concept**
"Information has value" as defined in the Framework for Information Literacy

**Brainstorm Focus Group**
90 minutes, via Zoom
Generated 100 learning outcome statements

**Statement Synthesis**
Removed redundancies
Adjusted language
Optional feedback from group
75 final statements

**Sorting & Rating**
Individually sorted and rated
usabiliTEST card sorting software
Qualtrics survey software
Completed in one week

**Map Generation**
Applied hierarchical cluster analysis to multi-dimensional scale
Named clusters and calculated the average cluster rating

**Final Reflection**
Process reflection and feedback
Group analysis/reflection on map
<table>
<thead>
<tr>
<th>Cluster</th>
<th>Sample Learning Outcome</th>
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<tbody>
<tr>
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<td>recognize the value of human networks in accessing information</td>
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<td>2. Scholarly Conventions of Value</td>
<td>critique traditional systems of assigning value to information in specific disciplines</td>
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<td>3. Access &amp; Navigation</td>
<td>demonstrate facility in navigating systems of information to meet information needs</td>
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<td>4. Formal Recognition of Value</td>
<td>use citation to acknowledge the work of others, including those who have been traditionally marginalized</td>
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<td>5. Access(ibility) is Power</td>
<td>critique the concept of information neutrality</td>
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<td>6. Information Privilege</td>
<td>appraise their own and others’ information privilege and marginalization</td>
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<td>7. Information is Power(ful)</td>
<td>recognize that the distribution of information can be politically motivated</td>
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<tr>
<td>8. Information Agency &amp; Responsibility</td>
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<td>9. Systems of Value</td>
<td>recognize that the value of information can be context-specific</td>
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Concept Map
Apply Findings

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Applying Findings

Assessing student work

- Coding student work
- Document-based interviews
- Other approaches?

Illuminating Social Justice in the Framework, *Communications in Information Literacy*, Summer 2019
Q&A/Discussion

More questions than we can answer today? Feel free to contact us.

Zoe Fisher - ztrope at gmail or www.quickaskzoe.com

Ebony Magnus - ebony[dot]magnus at sait[dot]ca or [at]ebonymagnus on twitter

Nicole Branch - nbranch at scu[dot]edu
References


