

# Getting Started with Assessing Student Retention

Mary O'Kelly, MLIS  
Grand Valley State University

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**GRAND VALLEY**  
**STATE UNIVERSITY**  
UNIVERSITY LIBRARIES

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**Mary O'Kelly**

Head of Instructional Services

Grand Valley State University Libraries

[okellym@gvsu.edu](mailto:okellym@gvsu.edu)

*Data analysis provided by  
Rachael Passarelli, Research Analyst  
GVSU Office of Institutional Analysis*



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# Assessing Student Retention



- Why do it?
- What questions are we trying to answer?
- What data do we need to get the answer?
- Who will get the data? Analyze it? Interpret it? Communicate it? (DAIC)
- Who needs to know and how will we share it?

*Based on “Seven Questions for Assessment Planning” (O’Kelly, 2015) and “Correlation Between Library Instruction and Student Retention” (O’Kelly, 2015)*



# Poll: Your Library

*Do you assess student retention at your library?*

- Yes
- Planning to
- Not yet



**For the fourth year in a row,  
GVSU has found a statistically  
significant difference in  
retention between students  
who had a librarian visit class  
and those who did not.**

# Background



- Grand Valley State University
- Allendale and Grand Rapids, Michigan
- Masters large, public, 4-year
- 25,000 students
- Librarians are faculty, library has a dean
- No assessment librarian

# Why retention?



- Priority in higher education
- Priority at our institution
  - Gen Ed program assesses information literacy
  - Libraries participating in SAILS, LibQUAL, NSSE-IL
  - Retention in strategic plan
- High priority for the library to communicate value and impact on broad educational goals





# Literature: Libraries

- Relationship between library, instruction, and academic support expenses per FTE and retention (Crawford, 2015)
- Relationship between library use and retention (Haddow, 2013)
- Relationship between library expenditures and retention (Mezick, 2007)
- Relationship between database logins, book loans, and e-journal use with GPA and retention (Soria, Fransen, & Nackerud, 2014)



# Literature: Higher Ed

- High-impact educational practices, incl. first-year seminars, writing-intensive courses, undergraduate research, capstone courses and projects (Kuh, 2008)
- Effect of student engagement, time and effort on studies, student-faculty contact, and high expectations on student success (Kuh, Kinzie, Schuh & Whitt, 2010)
- Importance of moving from why students leave college to identifying practical approaches to affecting retention (Tinto, 2006-2007)



“Now is the time to work cooperatively with fellow academic administrators and support colleagues on obtaining concrete evidence that the library and librarians can help their institutions to boost retention rates.”

Steven Bell, 2008



# Poll: Challenges

*What's most challenging about assessing student retention?*

- Collecting the data
- Analyzing and interpreting the data
- Communicating the results

# What questions?





# What questions?

- Brainstorm a list
- At the end of 2015-2016 I asked 31 questions
  - How many students do we reach with instruction?
  - In what majors and minors? And in what grades?
  - Are there any programs we didn't reach?
  - How many students saw a librarian more than once?
  - Is there an intensity effect on re-enrollment or GPA of students who saw a librarian multiple times?
  - Can we create a line graph showing the number of instruction sessions per day over the course of the academic year?



# What questions?

- The big question:
  - Of the students who saw a librarian during the academic year, what percentage of them re-enrolled for the following fall, compared to students who did not see a librarian? (overall and by grade FR SO JR SR GM GD)
- Note—It's important to define *retention*.



# What data?

- Library instruction data in LibAnalytics
  - Course code, number, section in separate fields
  - Professor name and librarian name
  - Other: date, location, duration, content
  - Did not take attendance; absences within margin of error
- Institutional Analysis department holds all private student data



# Who collects data?



- Instruction librarians enter all instruction data
- University collects student-level data such as major, GPA, enrollment
- Submitted plans through local Human Research Review Committee—IRB exempt



# Who analyzes data?

- Institutional Analysis does all the analysis
- Why? Four reasons:
  - Expertise
  - Software
  - Private data controls
  - Expertise
- Library specifically asked for analyst's time and clusters requests two or three times a year

# Who interprets data?



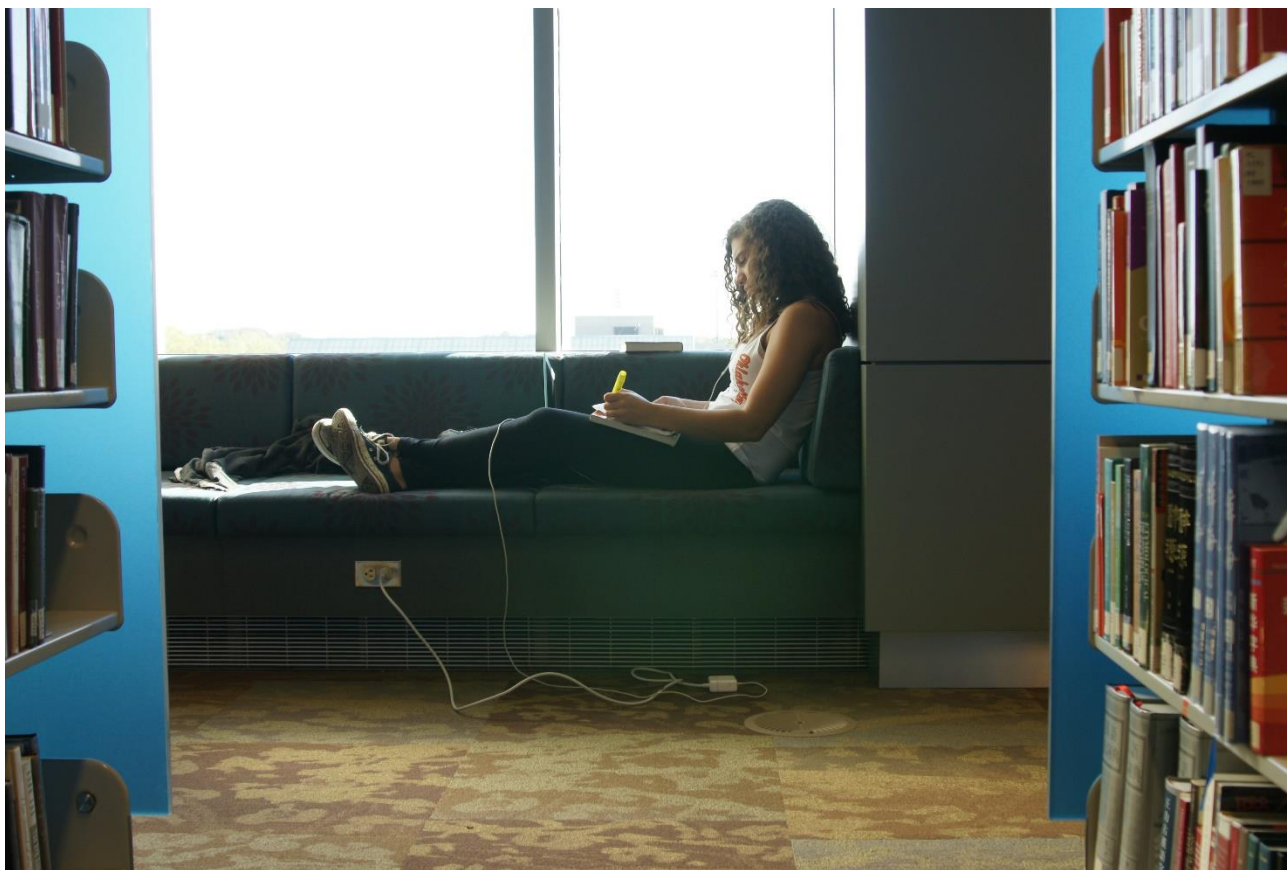
- Institutional Analysis answers a lot of questions from the library about interpretation
- Final interpretation up to the library
- Need to put raw data and the results of the analysis into the context of the entire library system

# Who communicates data?



- Head of instructional services or other library administrator
- Talking points given to instruction librarians
- Careful release through professional channels
- Balanced, transparent communication
  - Context: *How did we get here?*
  - Implications: *What does it mean?*

# Example: GVSU Methods



# Example: GVSU Methods



- $H_0$ : There is no relationship between library instruction and student retention
- Definition of retention: Re-enrollment the following fall semester
- Sent LibAnalytics dataset and questions to Office of Institutional Analysis

# Example: GVSU Methods



- From analyst
  - Pulled student records from course enrollment
  - Only courses with at least one library session
  - Chi-squared test of independence using SAS
  - Used a fixed p-value of .05 to test significance
  - Controlled for ACT score, high school GPA, socioeconomic status, and first-generation using generalized linear model



# Example: GVSU Results

*p-value = .0001 for all years*

Year	Librarian?	Number	% Retained
2012-2013	No	8762	70.90
	Yes	8763	73.70
2013-2014	No	9925	72.10
	Yes	8560	74.90
2014-2015	No	10040	71.00
	Yes	8340	76.10
2015-2016	No	9819	71.20
	Yes	8799	75.20



# Example: GVSU Results



- Reject the null hypothesis
- Findings are highly statistically significant and have been replicated for four years
- Magnitude positive—but small

# Example: GVSU Limitations



- Correlation is not causation
- Data entry subject to human error
- Attendance is estimated
- Online instruction added in winter 2016
- Results not generalizable to other institutions
- Retention is not persistence to graduation
- Reasons for withdrawal are very complicated



# Poll: Future Assessment

*How do you feel about trying to assess student retention?*

- Confident
- Cautiously optimistic
- Overwhelmed

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# References

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**Mary O'Kelly**

Head of Instructional Services

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[okellym@gvsu.edu](mailto:okellym@gvsu.edu)

*Data analysis provided by*

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*All photos courtesy GVSU University Libraries*

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# Questions?