A correlation study of library usage and student academic performance: Methods, outcomes and uses

Evidence-based Practice Discussion Group
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Rationale: UCF Environment

- Size
  - 60,000+ students
  - 2,000+ faculty
  - Doc/research intensive (91 B, 86 M, 30 D programs)

- Student retention efforts
  - Foundations of Excellence (transfer students)
  - At risk students
  - STEM grants/initiatives

- State Performance Based Funding model
Rationale: Library literature scan


• Tewell, E. (2015). Use of library services can be associated with a positive effect on First-Year students’ GPA and retention. Journal of Evidence Based Library & Information Practice, 10(1), 79-81.
Research Questions

Does library usage relate to student academic performance? If so, which services and resources have the most impact?

- Student success will be measured using course, term, and overall GPA, retention, and time to graduation. This effect size will be assessed by comparing performance between students who use library resources and students who do not use library resources.

- If there is a positive impact on student success, we will identify the library interaction points which have the greatest impact and allocate additional resources to them.
Methods: Library interaction points

Services

• Instruction
  – F2f
  – Online modules
  – CMS library course
  – Workshops/programs
  – Embedded (in future)

• Research consultations

• Reference transactions

Resources

• Study room reservations
• Interlibrary loan
• Library computer use (onsite)
• Database logins (distance)
• Circulation records
Methods: Student variables

Demographic and academic

• Gender
• Ethnicity and first language
• College and major
• Type – transfer or FTIC
• ACT, SAT, and/or GRE scores
• Status – academic (F, S, J, S) and Honors
• Course grade
• Semester and overall GPA
• Over time... retention, time to graduation, graduation GPA
Methods: Strengthen claims

• ID’d courses that library users were enrolled in
• Matched to students in the classes that did not interact with the library
• Retrieved the same academic and demographic information for “non-participants”, by course
• Compare GPA by group
Stakeholders

• Those who provide services, those who collect data (library and other units), those who analyze

• Variables, who collects?
  – Manual: f2f instruction, workshops, research consultations
  – Online record: study room reservations, online instruction, ILL, library computer logins, EZ Proxy/database logins

• Involvement of other campus units?
  – Statistics faculty member
  – Institutional Knowledge Management
  – Center for Distributed Learning
# Workflows

## Face to face instruction (manual)
- Librarians collect student NIDs
- Office mgr inputs, sends monthly stats
- I keep, collate semester data
- IKM provides student data
- I collect, take to Statistician

## Study room reservations (online)
- Office mgr pulls and sends monthly NIDs
- I keep, collate semester data
- IKM provides student data
- I collect, take to Statistician

## Database logins (online)
- Systems collects student PIDs each semester
- Large volume of data, cannot mail
- Place on drive that can be downloaded
- May be difficult to access
- IDs need to be converted
Trials and travails... er, Opportunities

• Manual vs Online
• Student privacy issues
• Data exchange
• Volume of data
• Different student IDs
• Feed and care of collaborators
• Who owns data?
Where we are now

• Fall 2014 complete data set for services
  – Statistician out of country this summer
  – 11,063 unique people interacted with library
    • 51 academic and demographic variables
    • 232,340 “non library user” enrollments

• Spring 2015
  – Data submitted by type of interaction
  – Will create a single list of students by interaction

• Summer 2015
  – Continuing to collect interaction points, may expand
Uses of results (anticipated)

This project has the potential to provide data driven evidence of library impact on the academic success of students at the University.

• Demonstrate to the University the role that the library plays in student success
• Roll results back into institutional data collection efforts
  – Foundations of Excellence – 27,000 transfers
  – STEM student success initiatives on campus
• Advocate for funds through performance based funding model
  – Programs that positively impact student GPA and retention
• Increase or revise library programming and services (more resources for those with the greatest impact)