INTRODUCTION

Much research has been conducted on the impact of 50-minute library instruction sessions (Andersen and May, 2010). However, many of the previous evaluation efforts on library instruction was focused largely on the students’ perception of their satisfaction of individual courses, rather than the long-term, actual impact to their academic career.

In order to compete for educational resources within and beyond the academic institution, outcome-based evaluation is necessary to show the multiple aspects of the influence of library instructions on their communities. Oakleaf (2010) suggested that librarians demonstrate academic library credibility in terms of institutional outcomes related to areas such as student enrollment, student retention and graduation rates, student success, student achievement, student learning, student engagement, and faculty research productivity (p. 12).

Currently, there are no allied efforts across different types of libraries to assess library instruction credibility, strategies to establish verifiable evidence, or methodologies to promote and publicize such effort. For this paper, we explored the current status on library instruction credibility and conducted a focus group study at the LOEX 2011 conference to form a joint effort on this topic.

BACKGROUND

Libraries developed standardized tools that can be used to assess the evidence of teaching effectiveness for library instruction session. One example is Standard Assessment of Information Literacy Skills (SAILS), which was developed by Kent State University and based on the Association of College and Research Libraries (ACRL) Information Literacy Competency Standards for Higher Education. The use of SAILS was thoroughly reviewed by Lym, Grossman, Yannotta, and Talih (2010).

While tools for library instruction provide fundamental information supporting the importance of library instruction, it cannot demonstrate the long term effects on student success. The literature review found only Richland Community College (2002) conducted an award-winning study on the impact of IL on student retention and grades. They reported three factors that are relevant in assessing the influence of library instruction: course completion rate, student retention rate, and student grades (in terms of C or better). However, their results were from one individual case that has not been replicated in other institutions. Currently, there is no systematic method, nor joint effort to collect such evidence on this topic from a number of institutions. It is crucial for instruction librarians to collect evidence and establish the effectiveness of library instructions as a major factor in students’ academic success.

The goal of this paper is to establish the credibility and values of information literacy among academic communities, particularly among administrators. The objectives are to form an alliance among academic librarians from different institutions, to decide what to measure to demonstrate their credibility, and to get a consensus on what they should measure and how to implement it.

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THE PRESENTATION

A few ice breaking questions were asked of the attendees:

• How many of you have had articles published recently? - 7 hands

• How many were in journals with the word “Library or librarian or libraries” in the title of the journal? - 7 hands.

• How many were in journals with the word biology or chemistry or education or any other science or teaching discipline in its title? - 1 hand

The point of this exercise was to establish that librarians publish primarily in library journals. The next question was, who reads library journals, and the answer was, predictably, librarians. This led to the gentle suggestion that if we want to be successful in spreading the word about the importance of library instruction and information literacy, we need to reach outside the library world, into the world of journals which educators read.

The next point was to determine how we can establish credibility with this audience, which ideally will include, or at least come to the attention of educational administrators. To answer the question, how do we establish credibility, the PowerPoint slide showed a close-up of the Star Trek: Next Generation character, Commander Data, the android crew member. After a short silence followed by general laughter as the audience caught on, they were reminded that “Data has a human face.” Library literature is full of qualitative data but lacking in quantitative data, another point that was important to make. This slide and the attendant verbal comment were intended to remind them that quality can be achieved and expressed by quantitative data, which is what most administrators pay attention to.

Appendix A has the graph which was shown on the next slide. It depicts the results of work done at Richland College in Dallas, Texas, which, briefly, shows a 15% greater retention rate for students who attended seven information literacy workshops offered by the library than for students who did not; the information literate students had a course completion rate approximately 20% higher than other students; and 20% more of the information literate had an average grade of C or above.

When the results of this graph and this formula, \( \text{retention rate} \times \text{number of students} \times \text{tuition} \), were applied to the numbers of students in the Fall 2010, freshman and sophomore classes at the University of North Texas (11,172), at a retention rate of 15%, and figuring $3808 for 15 hours of undergraduate in-state tuition, the amount that would result is $6,381,446.00 for that semester alone. In times of shrinking budgets, this is phenomenal, and would make any administrator take notice.

In order to answer our research questions we conducted a focus group interview session during the LOEX 2011 conference in Fort Worth, May 7, 2011. Twenty attendees plus the investigators participated in the focus group discussion after the presentation from the authors. The breakdown of institutions represented was:

• Community or two-year colleges: 3

• Four year colleges: 1

• Public universities: 5

• Private universities: 4

• Research Universities (ARL): 6

• Medical school: 1

• Seminary: 1

In two cases, there was more than one attendee from a single institution; otherwise, the number of attendees from each type of institution was the same. There were three people from one public university, which included the presenters and one attendee, and two from one ARL university.

Five Questions were Prepared to Pose to the Attendees:

• Question 1: Are the variables (retention, grades, and completion rate) good enough? What else could we measure?

• Question 2: What kind of knowledge and skills do students need in order to solve the problems in their academic work?

• Question 3: How can we teach them this? What are the most effective ways to do so?

• Question 4: How can we measure the success of IL classes?

• Question 5: What are you doing to incorporate Information Literacy in your school?

The authors moderated the session in four tables. Each table was asked to collect answers to the questions. After the tables reached consensus on what was most important, the presenters asked for the keywords, which were recorded on flip-charts to gain immediate feedback from the participants. In the interests of time, only questions 1, 2, and 4 were actually used.

The authors used content analysis to summary the results, which are reported in the next section.

METHODS

In order to answer our research questions we
RESULTS

QUESTION 1: Are the variables (retention, grades, and completion rate) good enough? What else could we measure?

- Learning
  - Critical thinking skills
  - Information Literacy
- Institutional Repository – College Measures:
  - Number who go on to graduate school
  - Job placement
  - Defaults on student loans
  - Level of productivity
  - Offer services to alumni
- Age
- Work status
- Return to school for advancement
- Demographics
  - Data of students’ levels before and after – remedial classes, etc.
- Involving undergraduates in faculty research
- Students on academic probation
- For universities with high retention rates, look at the quality of student papers
- Determine whether students at community college move on to four-year institutions
- Look at bibliographies to analyze resources used

QUESTION 2: What kind of knowledge and skills do students need in order to solve the problems in their academic work?

- Critical thinking skills
- Evaluation of information content
- Design and focus on problems
- Manage priorities, time, etc.
- ACRL Information Literacy Standards
- Communication skills
- Collaboration
- Presentation
- Media Literacy
- Come to a solution
- Life skills – apply college to your life
- Adaptability

QUESTION 4: How can we measure the success of Information Literacy Classes?

- Look at student artifacts – papers
  - Quality
  - Define rubrics
  - How to assess specific IL skills
- Testing – pre- and post-
- Critical incident questionnaires
- Post assessment
- GPA improvement
- Later success in graduate or professional school

DISCUSSIONS

Considering the wide variety of answers to the three questions, more analysis will need to take place. Critical thinking skills showed up in two of the answer sets, as both skills needed and something to measure to prove the efficacy of information literacy instruction. In Question 2 it may be valuable to arrange the answers according to the difference between knowledge and skills, and in Question 1 much thought will need to be given to determining how those things can be measured.

One attendee questioned how it can be determined that the differences in the three variables (retention, course completion, and grade) were caused by the presence or absence of information literacy instruction. Obviously, correlation does not mean causal relationship based on one case study. However, this is why the situation needs to be studied in a methodical manner and in such a way as to be compatible among the different types of institutions. Once factors such as age, gender, educational background, and other demographic information are considered, librarians can inspect this relationship further with experimental studies and draw more valid conclusions.

Reading through some of the papers referenced earlier, it was noticed that researchers had mentioned the results of their assessment within a paper dedicated to some other facet. So information is out there on the efficacy of information literacy instruction, but it has not been gathered together.
Further steps to be taken by the authors:

1. Follow up with Richland College - more specific information on the way they determined that retention, etc., were affected by the information literacy training.

2. Development of a way of corresponding with the attendees, to get more feedback for the two questions which were not asked, and to continue the discussion that was begun at the LOEX Conference.

3. Investigate the repetition of this session in other venues, possibly as a preconference, since comments indicated that insufficient time had been allotted for the scope of this program.

4. Follow up with authors of the papers where assessment results were mentioned.

5. Initiative to strongly encourage librarians to publish their results in higher education journals and in collaboration with faculty with whom they work, in journals in the faculty members’ disciplines.

Conclusions

To build instructional credibility, what is needed is quantitative data showing the benefits that students derive from library instruction. It needs to be gathered and published in non-library forums, such as educational or subject specific journals. Once the benefits are publicized and understood by educators and faculty, library instruction sessions may be able to move beyond the fifty minute, one shot instruction session, and make an information literate society a reality.

As a first step, this paper hinted at a strategy for conducting the research, ideally working with colleges and universities of different sizes, and agreeing to use measures that are mutually compatible so that the resulting statistics can be compared validly. The resulting broad spectrum of evidence that library instruction is the cornerstone on which our information-rich society can build its knowledge will demonstrate its value, and show that it needs to be taught systematically rather than to depend on students “picking it up.”

Bibliography / Further Readings

Articles:


Badke, W. B. (2005). Can’t get no respect: Helping faculty to understand the educational power of information literacy. *Reference Librarian, 43*(89), 63-80. doi:10.1300/J120v43n89•05


Websites:


Books:


APPENDIX A
Graph and information about the Richland College Information Literacy Training Certificate at Richland College

Note: CCR = Course Completion Rate, SRR = Student Retention Rate, Grade of C or better

In 2004, Richland College, a campus of the Dallas County Community College System, won the ACRL Excellence in Academic Libraries award for a community college library. Their application information is available at [http://www.ala.org/ala/mgrps/divs/acrl/awards/excellenceaward/richlandap.cfm](http://www.ala.org/ala/mgrps/divs/acrl/awards/excellenceaward/richlandap.cfm). The following is taken from this application:

**Statistical Measures of Student Success.** Beginning in 2001, the Office of Institutional Research at Richland College has been analyzing data gathered on students who have been involved in the Richland College Library’s information literacy program. Thus far, data has been gathered for the fall and spring semesters of 2000-2001, 2001-2002, and 2002-2003. This research has been conducted to determine (1) if students who earn the library’s Certificate of Information Literacy and (2) if students who attend at least one information literacy class (but don’t complete the certificate requirements), have a higher course completion rate, a higher student retention rate, and make higher grades. This research has revealed that students who take our classes are students who have a higher course completion rate and a higher semester-to-semester retention rate. Also there appears to be a correlation with higher grades.

The figures supporting these assertions are in an appendix which is no longer available on the website. However, one of the authors of this paper had access to them in the past and kept the graph reproduced above.