Factors Affecting Student Learning Outcomes of Information Literacy Instruction

ABSTRACT
This poster reports results of a survey conducted recently at a Canadian business school concerning factors affecting student learning outcomes of information literacy instruction (ILI). Specifically, the effects of demographics, learning environment factors, and information literacy components on behavioral, psychological, and benefit outcomes of ILI are examined. Results test qualitative findings reported in a paper by the authors at last year’s ASIST Annual Meeting (Julien et al., 2009), and identify the salient factors surrounding the delivery of ILI that affect student learning outcomes. Specifically, results show that greater amounts of active instruction, more seniors, and more positive perceptions of the quality of and satisfaction with ILI, all yield improved student learning outcomes.

Keywords
Information literacy, information literacy instruction, student learning outcomes.

INTRODUCTION
This poster reports quantitative findings from a recently administered survey concerning the effects of ILI on students. As this poster pertains to information literacy instruction and how a particular human population reacts to how this instruction is given and received, this poster highly aligns with the Information Behavior track described in the ASIST 2010 Call for Papers that explicitly invites submissions dealing with how affective, social, cognitive and physical factors affect how people experience information in a variety of contexts, including schools.

Information literacy, according to the Association of College and Research Libraries or ACRL (2006), is the set of abilities requiring individuals to “recognize when information is needed and the ability to locate, evaluate, and use effectively the needed information.” Information literacy instruction is the teaching of these abilities to students. The desired learning outcomes of such instruction typically include the ability to recognize when information is needed, to know what information sources to utilize, to search and find information within those sources (i.e., to know how to conduct a search strategy and how to use information technology and systems to execute that strategy effectively and efficiently), and to evaluate and use the information found in both ethical and legal ways (ACRL, 2000).

THEORETICAL BACKGROUND
The theoretical background for this study is a model of the factors of the learning environment, information literacy program components, and student demographics that affect student learning outcomes of ILI (see Figure 1). That model was derived from a qualitative research investigation of student learning outcomes of ILI at three business schools where a conceptual framework based on information literacy and educational assessment theories (Boyer & Ewell, 1988; Lindauer, 2004; Sims, 1992) guided the data analysis (Detlor et al., 2010a, Detlor et al., 2010b).

In Figure 1, information literacy program components are features of the ILI itself, such as the types of skills taught, whether the instruction is aligned with a course assignment, whether the instruction is active or passive, the amount of material taught, the length of the instructional sessions, who teaches the ILI, etc. The learning environment is the broader context in which this instruction is given and is concerned with such things as budgets, resources, attitudes toward the need for ILI, and relationships with librarians (the traditional providers of ILI). Student demographics are individual characteristics of ILI recipients such as gender, year in the program, academic performance, and relevance.
of the instruction to career goals. Figure 1 illustrates how student learning outcomes can be broken down into behavioral, psychological, and benefit outcomes. Behavioral outcomes are changes in action (e.g., improved and increased use of online library resources; improved and increased use of librarians; and improved and increased use of the physical library itself). Psychological outcomes are changes in attitudes or values (e.g., both decreased anxiety and increased self-efficacy in using online library resources; and improved perceptions of librarians, online library resources, and the physical library). Benefit outcomes are positive outcomes of receiving ILI (e.g., time savings; effort reduction; higher grades; and being better prepared for the workforce upon graduation).

**METHODOLOGY**

A survey was administered to full-time undergraduate business students at a medium-sized Canadian university. To encourage recruitment, survey respondents were eligible to participate in a draw for 100 $50 gift certificates at the local campus bookstore. In total, 409 students completed the survey (a 20% participation rate). Of these, 372 surveys were deemed usable for further analysis. Questions on the survey polled aspects of information literacy components, student demographics, and student learning outcomes. Prior to administration, survey items were face-validated by members of the research team and 30 volunteers, and modified accordingly over several iterations of review.

**RESULTS**

Analysis of the survey data involved the use of MANOVA and structural equation modeling (SEM) techniques. A major finding of the MANOVA work was that the greater the time spent in the undergraduate program (i.e., the more senior the students were) and the greater the amount of active ILI instruction received (e.g., the use of hands-on, interactive training), the better the student learning outcomes. Specifically, these consisted of improved use of librarians, decreased anxiety and increased self-efficacy using online library resources, improved perceptions of librarians as being more helpful and valuable, and efficiency gains in time savings and a reduction in effort finding information.

A major finding of the SEM work was that active ILI instruction (not passive) directly promoted decreased anxiety and increased self-efficacy using online library resources, and indirectly encouraged online library resources use via improved perceptions of the usefulness and ease of use of these resources.

Another major finding of the SEM work was that positive student perceptions of the quality of, and satisfaction with, the ILI received yielded a positive effect on psychological outcomes (e.g., decreased anxiety and increased self-efficacy using online library resources, improved perceptions of librarians as being more helpful and valuable, improved perceptions of the library). This in turn led to improved behavioral outcomes (e.g., improved and increased use of online library resources, librarians, and the physical library), which in turn led to improved benefit outcomes (e.g., efficiency gains in time savings and a reduction in effort finding information, better grades, and being better prepared for the workforce).

Note that these results are highlights of the study’s major findings. More discussion and results will be disseminated and explained at the poster session during the conference.

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**REFERENCES**


