Evidence Summary

First Year University Students Arrive with Some Search Skills, But Struggle with Scholarly Sources

A Review of:

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Abstract

Objective – To determine what existing information literacy skills first year students possess upon entering university.

Design – Quantitative survey questionnaire.

Setting – A research university in Australia.

Subjects – 1,029 first year students in the health sciences.

Methods – First year students enrolled in the health sciences were asked to complete a paper questionnaire in their first week of classes in 2009. The 20 question survey was distributed in student tutorial groups. The first 10 questions collected information on student demographics, expected library use, and existing information seeking behaviour. The remaining 10 questions tested students’ understanding of information literacy concepts. Data collected from the survey were analyzed using the statistical software SPSS.

Main Results – Most of the students who responded to the questionnaire were between the ages of 16 and 21 (84.3%) with only 2.2% over the age of 40. Approximately 15% of respondents had completed some postsecondary university or vocational education prior to enrolling in their current program.
The students ranked Google, a friend, and a book as the top three places they would go to find information on something they knew little about. Google was also the most popular choice for finding a scholarly article (35% of respondents), followed by the library catalogue (21%).

A large proportion of students correctly answered questions relating to identifying appropriate search terms. For example, one third of the students selected the correct combination of search concepts for a provided topic, and 77% identified that the choice of search phrase could negatively impact search results. Students also demonstrated prior knowledge of the Boolean operator AND, with 38% correctly identifying its use in the related question. Most students were also able to identify key markers of a website’s credibility.

Questions relating to ethical information use and scholarly literature proved more challenging. Almost half (45%) of the students said that they did not know the characteristics of a peer reviewed journal article. Twenty five percent of respondents indicated that citing an information source was only necessary in the case of direct quotes, with only 28% correctly identifying the need for citing both quotes and paraphrasing. Only 23% were able to select the example of a journal citation from the list presented.

**Conclusion** – Students enter university with existing strengths in concept identification and basic search formulation, but require the most assistance with locating and identifying scholarly literature and how to cite it appropriately in their work. The findings will inform the development of an online information literacy assessment tool to assist incoming students in identifying areas where they may require additional support as they transition to university.

**Commentary**

From the beginning of the article, it is clear that the authors are firmly rooted in a constructivist approach to learning, even if the theory itself is never named. While the pre/post test method has long been a part of library research as a way to measure the impact of educational interventions, the authors’ focus on the pre-test results here suggests an attempt to further demonstrate that a student is not an empty vessel to be filled with information literacy knowledge, but an individual with strengths that can be harnessed as part of the learning process. The constructivist approach to learning with its focus on individual meaning making, building on existing knowledge, interactivity, and tasks that reflect real life concerns, continues to be a dominant pedagogical force in information literacy instruction today (Cooperstein & Kocevar-Weidinger, 2004).

The article itself is a brief snapshot of a larger study that included a post-test with the same cohort at the end of the academic year. It largely stands on its own, but the relevant data tables and discussion of some of the survey question results were left out of this work, perhaps in the interest of brevity. For example, readers may be interested to know that almost 60% of the students who completed the pre-test reported that they had encountered information literacy instruction in their previous studies (Fisch, Karasmanis, Salisbury, & Corbin, 2009). The study’s strengths include an excellent response rate (63%) and the use of a previously validated survey instrument (Glynn, 2006). The survey was based on one initially used by Mittermeyer and Quirion with incoming students at Quebec universities in 2003. This survey has been used by a number of other researchers internationally since its original publication, allowing the authors to compare their responses to the work of others. However, even at the time the authors used the tool in 2009, the instrument was showing its age. The authors noted that several questions needed to be reworded because of references to outdated information tools. There was also a surprising emphasis in the survey on how to use the library catalog, with four questions addressing this particular tool, and only one specific question relating to websites. This may seem more jarring to readers in 2014, when the use of discovery
services by many university libraries has eroded the traditional boundaries between library catalogues and databases.

The survey instrument is also based on a set of information literacy competencies that are currently being rewritten by the library community. The 2004 Australian and New Zealand Information Literacy Framework referenced by the authors and the original 2003 survey are both based on the 2000 American College and Research Libraries’ (ACRL) Information Literacy Competency Standards for Higher Education (Mittermeyer & Quirion, 2003). The first draft of what is being described as a new Framework for Information Literacy for Higher Education was released by ACRL in February 2014, with part two of the draft set for release in April 2014. The release of the ACRL’s Framework marks a significant shift in direction away from the existing Standards’ “limited, almost formulaic approach to understanding a complex information ecosystem” (ACRL, 2014, p. 3). The authors’ constructivist approach to learning still resonates within the ACRL Framework draft, but the task-focused nature of several questions asked in the pre-test survey seems to reflect some of the concerns expressed about the Standards on which they were based. While it remains important to consider students’ existing knowledge in order to design appropriate and useful information literacy support, the development of new research instruments with which to better capture the complexity of students’ understanding of their information environment is necessary.

References


