



Evidence Summary

Graduate Students May Need Information Literacy Instruction as Much as Undergraduates

A Review of:

Conway, Kate. (2011). How prepared are students for postgraduate study? A comparison of the information literacy skills of commencing undergraduate and postgraduate studies students at Curtin University. *Australian Academic & Research Libraries*, 42(2), 121-135.

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Received: 8 Apr. 2014

Accepted: 12 Aug. 2014

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Abstract

Objective – To determine whether there is a difference in the information literacy skills of postgraduate and undergraduate students beginning an information studies program, and to examine the influence of demographic characteristics on information literacy skills.

Design – Online, multiple choice questionnaire to test basic information literacy skills.

Setting – Information studies program at a large university in Western Australia.

Subjects – 64 information studies students who responded to an email invitation to

participate in an online questionnaire, a 44% response rate. Of those responding, 23 were undergraduates and 41 were postgraduates.

Methods – Over the course of two semesters, an online survey was administered. In order to measure student performance against established standards, 25 test questions were aligned with the Australian and New Zealand Information Literacy Framework (ANZIIL) (Bundy, 2004), an adapted version of the ACRL Information Literacy Standards for Higher Education (Association of College & Research Libraries, 2000). In the first semester that the survey was administered, 9 demographic questions were asked and 11 in the second semester. Participants were invited to respond

voluntarily to the questionnaire via email. Results were presented as descriptive statistics, comparing undergraduate and postgraduate student performance. The results were not tested for statistical significance and the author did not control for confounding variables.

Main Results – Postgraduate respondents scored an average of 77% on the test questionnaire, while undergraduates scored an average of 69%. The 25% of respondents who had previous work experience in a library achieved average scores of 79%, in contrast to 69% among those who had not worked in a library. Average scores for undergraduates in the 20-30 age group were 81%, while those in the 30-40 age group averaged 65%. Among both undergraduate and postgraduate students, scores may indicate deficiencies in information literacy skills in several areas, including parsing citations, strategies for locating specific content, and defining an information need.

Conclusion – The study concludes that postgraduate students' information literacy skills may be marginally better than the skills of undergraduates. Age was found to be associated with higher performance among undergraduate students, and a variety of "basic" information literacy skills may elude many respondents. These findings might prompt librarians and instructors to look closely at gaps in information literacy knowledge among students at both the undergraduate and postgraduate level.

Commentary

Librarians and instructional faculty may assume that new postgraduate students possess a high level of information literacy, instilled during their undergraduate careers. The author attempts to test this assumption.

Rather than testing the information literacy skills of only postgraduate students, Conway chose to take a comparative approach by testing two populations, postgraduate and undergraduate students of Information Studies at Curtin University. The literature review

notes that few studies have compared basic information literacy competencies of postgraduate and undergraduate students. The author suggests that undergraduates are the focal point of literature about information literacy skill level; however, the literature review omits recent publications focused on graduate students (Siegel, 2009; Catalano, 2010; McMillen, Garcia, & Bolin, 2010).

Conway acknowledges the limitations of multiple choice tests for the higher order thinking associated with information literacy. Presumably due to cost and other practical considerations, the author did not use a standardized information literacy skills test like SAILS, which is proprietary and not open access. The survey instrument was developed using questions from a Curtin University Library online information literacy tutorial that is no longer available (Curtin University Library, 2010), and questions that have appeared in previously administered tests of information literacy skills (Mittermeyer & Quirion, 2003), though some tests cited by the author are not readily available for consultation (Stokes, 2005; Van Zijl, Bennett, Darling, Shields & Bennett, 2006). The choice to use previously administered questions may lend validity to some of the questions and findings. The author reports that tests using similar questions yielded lower average scores than the Curtin University test, speculating this finding is due to inclusion of postgraduates in the subject pool and the significant population of subjects who had previous library work experience. Unfortunately, the survey instrument was not appended.

A serious limitation of this study is that the author did not test the results for statistical significance. As Conway notes, this research cannot be generalized because of the small respondent pool; however, the test was also not administered to a random sample of students. Choosing to test Information Studies students means that these findings have no point of comparison to postgraduates and undergraduates in other disciplines.

While postgraduates generally performed better than undergraduates, the author notes that the overall performance of postgraduates was only 8% higher than undergraduates. The author particularly notes a correlation between age and skills performance, with respondents in their twenties scoring higher on some questions than respondents in their thirties. Of interest to librarians, respondents had higher scores if they had previous library work experience, but scores were not improved by previous information literacy instruction. However, as reported, these results do not control for confounding variables.

For practitioners, the most essential conclusion of this research is that both postgraduates and undergraduates who took the skills test appeared to struggle with concepts that librarians and classroom instructors may view as basic. Serious limitations of research design notwithstanding, this research may remind librarians of the need to integrate information literacy instruction throughout undergraduate and postgraduate experiences.

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