



Evidence Summary

Undergraduate Student Use of the Physical and Virtual Library Varies according to Academic Discipline

A Review of:

Bridges, L.M. (2008). Who is not using the library? A comparison of undergraduate academic disciplines and library use. *portal: Libraries and the Academy*, 8(2), 187-196.

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Abstract

Objective – To determine differences in undergraduate students' use of the physical library and virtual library by academic disciplines.

Design – Online multiple-choice survey followed by focus groups and secondary online survey with open-ended questions.

Setting – Oregon State University (OSU), a land-grant university with over 19,000 students located in Corvallis, Oregon, United States.

Subjects – A random sample of 22% (n = 3,227) of the undergraduate population (n = 14,443), drawn by the registrar's office. Distance education and students at branch

campuses were not included. From this pool, 949 usable survey responses (29% of the sample) were collected. The respondent demographics proved to be reasonably equivalent to those of the total undergraduate population in terms of class standing (freshman, sophomore, junior, or senior) and academic discipline.

Methods – The study consisted of three phases. In phase one, an email invitation with a link to the four-item multiple choice online survey was sent to students in the sample population. Results were analyzed using Pearson chi-square tests to determine goodness of fit between the following variables: class standing and library visits, class standing and virtual library use, academic college and library visits, and academic college and virtual library use.

When significant dependence was detected, researchers examined relationships between the specific groups (e.g., freshman and sophomore) and library use, and also compared each group to one another using odds ratios and by constructing 95% confidence intervals.

Phase two was intended to gather qualitative information from the 275 infrequent or non-users of the library in focus groups. However, researchers invited the 95 students in this group who had indicated a willingness to be contacted for further study, and only five students participated. The author therefore does not report on this limited data.

In phase three, researchers invited the 95 students who had self-reported as infrequent or non-users of the library and who had indicated a willingness to be contacted for further study to complete an online survey consisting of 36 open-ended questions. 38 students responded. Much of the data for phase three is reported on in a separate research article (Vondracek, 2007).

Main Results – Results from phase one are reported in detail: in response to the question of how often undergraduates visit the physical library, 24.6% visited several times a year, 29.6% visited several times a month, 34% visited several times a week, 7.7% visited once or more per day, and 4% reported that they did not visit at all. Response to how often undergraduate students use the online library resources or website from outside the library were: 37.7% use them several times a year, 32.8% use them several times a month, 12% used them several times a week, 1.3% used them once or more per day, and 16.2% reported that they did not use them at all.

No significant relationships were found between class standing and visits to the physical library or class standing and virtual library use.

Researchers determined a significant relationship between academic college and visits to the physical library ($p=0.003$): College

of Agriculture students were significantly less likely to visit the library than students from the Colleges of Health and Human Sciences, Liberal Arts, and Sciences.

Researchers also determined a significant relationship between academic college and virtual library use ($p=0.008$): students in the College of Engineering were significantly less likely to use the virtual library resources than students in the College of Liberal Arts.

The survey from phase three of this study asked students further questions about their library use and relevant results are discussed in this article. Five students from the College of Agriculture responded to the survey and all five students noted that they study at home. When asked about where they go for help with research, three reported that they ask a friend or peer, one noted a professor and the fifth did not respond to the question. Four engineering students responded to this survey; when asked about where they carry out online research, two responded that they use Google, one responded that he/she uses the library, and the fourth noted that he/she uses a building on campus.

Conclusion – This study determined that College of Agriculture students were less likely to use the physical library than their counterparts in the Colleges of Health and Human Sciences, Liberal Arts, and Sciences, and that College of Engineering students were less likely to use the virtual library resources than students in the College of Liberal Arts.

Commentary

This study seeks to collect data about the differences in undergraduate students' use of the library by class standing and academic discipline. As the author acknowledges, there is a commonly held belief among academic librarians that students in some academic disciplines, such as liberal arts, use the library more frequently than those in other disciplines, such as science or engineering. However, most literature on this subject either

focuses on graduate students or faculty, not undergraduate students, or pre-dates online article databases and other electronic resources. This study therefore represents a solid attempt to provide some evidence in an area where assumptions may have dominated.

The author acknowledges some potential weaknesses in the study: students were aware that librarians were administering the survey and could have reported more frequent library use since this could be perceived as the best or proper response. Response rates for the survey (29% or 949 out of 3,227) were within the expected range, but response for the focus groups (5% of infrequent or non-users who expressed willingness to participate further and only 1% of all infrequent or non-users) was poor. The author wisely noted that the data collected in the focus groups was not sufficient for comparison to the phase one survey data.

The phase three open-ended survey sought to fill in the gaps created by the low response rate to the focus groups, though only a few students from the relevant Colleges provided answers. It is difficult to extrapolate from these individual responses precisely why these groups of students use the physical and virtual libraries less than other students.

To determine why the student groups use the library to varying degrees, the author cites supporting examples from the literature and offers some additional suggestions based on observation. For example, the College of Agriculture (whose students were less likely to come to the library) holds most of its classes at a greater physical distance from the library than most classes in the liberal arts, sciences, and health and human services. The College of Engineering students (who were less likely to use the virtual library) were not able to log on to their engineering student accounts at the library and received free printing at their own building while the library charged \$0.07 per page for printing services.

The survey instrument is not included in the

article, and it is not clear whether examples for virtual library resources were listed. This, too, could have impacted the results as students may not be aware that online journal articles accessed through a Web resource such as Google Scholar are, in fact, provided by the library. Similarly, students could be accessing what has been termed "hidden libraries:" library resources provided in course management sites such as Blackboard by instructors who post articles or links to databases and thus remove the need for students to access the library directly (Van Scoyoc, 2006). Perhaps, as the author suggests, students in some academic disciplines are simply not assigned projects or papers that require library resources.

These and other potential reasons for the varying use of the physical and virtual libraries are worthy of a follow-up study. Interestingly, the original research design intended to use the online survey, which provided the bulk of the data for this article, as a screening tool for student focus groups. Given the low response rate to the focus groups and the low numbers of engineering and agriculture students who responded to the phase three survey, perhaps the next step is a targeted study of these two groups of students.

It would also be worthwhile for other institutions to survey their own undergraduate students to help determine whether the differences found in this study are unique to OSU or more widely applicable.

References

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