



Evidence Summary

Undergraduate Students Still Experience Difficulty Interpreting Library of Congress Call Numbers

A Review of:

Murphy, J., Long, D., & MacDonald, J. B. (2013). Students' understanding of the Library of Congress call number system. *The Reference Librarian*, 54(2), 103-117. doi:10.1080/02763877.2013.755418

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Abstract

Objective – To explore how undergraduate students interpret Library of Congress call numbers when trying to locate books.

Design – Multiple case study.

Setting – A public, residential university in Illinois, United States of America.

Subjects – 11 undergraduate students (10 upper division, 1 freshman; no transfer students included).

Methods – A qualitative approach was adopted, with a multiple case study design used to facilitate the collection of data from several sources. Students were recruited for

the study via convenience and snowball sampling. Participants who volunteered were interviewed and requested to complete a task that required them to organize eight call numbers written on index cards in the correct order. Interviewees were also asked about any instruction they had received on interpreting call numbers, and their experiences locating materials in other libraries and bookstores. Responses were then coded using colours to identify common themes.

Main Results – The study reported that there was little correlation between the students' own estimation of their ability to locate materials and their actual performance in the index card test. Five students who reported that they could find materials 75-100% of the time performed poorly in the test. Of the 11

participants, only 4 ordered the cards correctly, and in 1 such case this was by fortune rather than correct reasoning. Of these, three self-reported a high level of confidence in their ability to locate material, whilst one reported that he could only find the material he was looking for approximately half of the time. Of the seven students who incorrectly ordered the cards, no two students placed their cards in the same order, indicative that there is no clear pattern in how students misinterpret the numbers. During the interview process, five students stated that they experienced more difficulty locating books in bookstores compared with the library.

Conclusion – Based on the findings of the study, the authors recommend several interventions which could help students to locate material within the library, namely through improved signage in shelving areas including the listing of subjects and colour-coding, as well as integrating training on understanding call numbers into subject-based instruction. The possibility of using online directional aids such as QR codes and electronic floor maps is also suggested as a strategy to help orient students.

Commentary

The study addresses an extremely fundamental and important question in academic libraries: can students easily locate the reading materials they require? Indeed, the fact that the study was prompted by responses to a more general user satisfaction survey highlights the pervasiveness of the problem. In spite of this, it is an issue that is often overlooked in instructional design in favour of broader and deeper information literacy skills and behaviours, such as search skills, critical thinking, and personal information management.

As well as highlighting an important basic skill that is critical to successful library use, the study itself appears well-designed and could also be replicated or adapted for use at a local level in other libraries. At one point the authors state that 10 undergraduates

participated (p.107); however, in the methodology section it transpires that there were actually 11 participants in total, which is initially somewhat confusing. In this context, a slightly larger sample size would have been welcome, but is understandable given the case study methodology adopted. The index card test is an interesting idea that could be used in the future as a standalone pre- and post-test activity to measure learning outcomes in information skills training. The authors clearly recognise the limitations of the convenience sampling used, and also provide detailed information regarding the positionality of the researchers involved in the study, and the validity and reliability of the instruments used. It is refreshing and most welcome to see such rigour applied to methodological issues. Helpfully, the authors also include the interview script in full as an appendix. However, a clearer presentation of the results in a tabular format alongside the narrative description would make it easier for the reader to see at a glance the performance of each student in the index card test relative to the self-assessment of their ability in finding materials.

The study also raises questions over which classification scheme libraries should adopt, although the broader literature reviewed by the authors indicates that this is not just a problem unique to LCC; a comparative study exploring undergraduates' interpretation of Dewey Decimal Classification would provide an interesting counterpoint in this context. Moreover, the results of this study could be used as a control group to measure the success of future interventions such as improved signage or directional assistance.

Most interesting perhaps are the clear implications for information literacy instruction. The authors note that relatively little time is given over to discussing call numbers and print holdings during first-year sessions, with the main focus tending to be on e-resources and library services more generally. It is likely that this is also replicated in many other institutions, particularly as an increasing proportion of library resources are shifting to electronic formats. However, given

the findings of the study, perhaps it may still be of value to offer a session dedicated to locating print materials within the library for new undergraduates who find themselves trying to navigate a very unfamiliar terrain. Indeed the results of the study serve as a useful reminder that we cannot make any assumptions about our users' prior knowledge.

We must also remember that user experience is a key component of effective service design, and the evidence here suggests that libraries may still be struggling as a result of frequent "navigation fail points" (Hahn & Zitron, 2011, p. 31). Indeed difficulties using catalogues and shelfmarks have been encountered by users and reported on in the literature for many years now. That the problem still persists today may suggest an inability to find more creative solutions for our users in how they

can locate materials. Improving user experience has real implications for our signage, instructional design, layout, and indeed the classification systems and ways that we organize our collections. It also offers opportunities for new tools and technologies such as augmented reality applications, which can provide maps, floorplans and navigational directions to specific collections, or even key core texts, direct to a user's mobile device at the point of need.

References

- Hahn, J. & Zitron, L. (2011). How first-year students navigate the stacks: Implications for improving wayfinding. *Reference & User Services Quarterly*, 51(1): 28-35.
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