



Evidence Summary

Seven Years of Noise Reduction Strategies in an Academic Library Improve Students' Perceptions of Quiet Space, Especially Among Graduate Students

A Review of:

McCaffrey, C. & Breen, M. (2016). Quiet in the library: An evidence-based approach to improving the student experience. *portal: Libraries and the Academy*, 16(4), 775-791.
<http://doi.org/10.1353/pla.2016.0052>

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Received: 31 Aug. 2019

Accepted: 18 Oct. 2019

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DOI: [10.18438/eblip29637](https://doi.org/10.18438/eblip29637)

Abstract

Objective – To examine the interventions implemented by an academic library for noise management, and their impact on library users, over a seven-year period.

Design – Retrospective data analysis.

Setting – University library in Ireland.

Subjects – LibQUAL data from 2007, 2009, 2012, and 2014.

Methods – The researchers analyzed data from the 22 core LibQUAL questions and the three dimensions of library as place, information control, and effect of service. The study focused specifically on LibQUAL question LP2 in the library as place dimension: quiet space for individual work. Qualitative free text comments in the surveys related to noise or quiet issues were also analyzed. The adequacy mean was used to determine improvement in scores; this metric is calculated by subtracting the minimum mean score from the perceived mean score.

Main Results – LibQUAL scores related to the quiet space question steadily improved over the seven-year period studied. The adequacy mean went from -1.2 to -0.13, representing a 1.07 degree of improvement. For all 22 questions, the adequacy mean increased from 0.02 to 0.38, showing overall improvement of 0.36. Researchers reviewed the data for all individual questions to measure the degree of change over the seven years; the quiet space question had the highest level of improvement of all of the questions. Considering user groups' perceptions, there was a 2.03 degree of improvement for graduate students, while there was a 0.82 degree of improvement for undergraduates.

The researchers wanted to know if the noise interventions had a specific impact on the quiet space question compared to a more general impact on the "library as place" dimension. None of the other "library as place" questions improved to the degree of the quiet space question. Of the "library as place" questions, question LP5, the group space question, was the only one where the adequacy mean dropped, with an adequacy mean difference of -0.23.

External benchmarking conducted by the researchers put these results in an international context, using consortium data from ARL in North America and the Society of College, National and University Libraries (SCONUL) in the United Kingdom (U.K.).

Conclusion – Based on the study findings, the long-term noise management program implemented from 2007 to 2014 at the University library had a measurable impact, and users' perceptions of the quiet space in the library improved. Because perceptions improved most among graduate students, researchers concluded that future efforts for noise management strategies should consider focusing on this group.

Commentary

Library spaces, in recent years, have transformed from quiet study spaces to spaces that have encouraged collaboration, group

learning, social interactions, and technological advancement. However, along with these newly purposed spaces comes growing noise and lack of a quiet environment. According to the authors, the literature on noise management in libraries has grown in recent years but mostly consists of opinion-style articles with only a small number of articles that include evidence based research (McCaffrey & Breen, 2016). The lack of research studies, along with the small number of published studies focusing longitudinally on a single LibQUAL question, prompted the authors to conduct this study, which analyzes data across a seven-year period, and examines the impact of noise interventions on library users.

The authors used a critical appraisal tool developed by Glynn (2006) to evaluate the study. The data included responses from undergraduates, graduates, faculty, and staff, and was representative of the user group populations. The response rate was 9% in 2007 and increased to 17 % in 2014. The survey transitioned from LibQUAL in 2009 to LibQUAL Lite in 2012. In 2012, instead of answering all 22 questions, users answered three core questions and a randomly selected subset of users answered the remaining questions, meaning that not all respondents answered the quiet space question. As such, there were fewer responses to this question, particularly among graduate students and faculty. Rather than solely focus on LibQUAL quantitative data, the researchers could have more deeply explored the LibQUAL free text comments related to noise and space. More of a focus could have been placed on the graduate student population, given they were most affected by library noise. Supplementary qualitative inquiries, in addition to the LibQUAL data, could have been used to identify which noise reduction strategies would be most effective, instead of using trial and error to attempt to satisfy this population.

The study findings, while specific to an academic library in Ireland, may be applicable to academic libraries in the U.K. and worldwide, as many libraries seem to be grappling with the same noise issues.

However, because not all libraries have the same needs in terms of group collaborative space and quiet study space, noise reduction strategies will differ based on the desires of the local library user population as well as the makeup of the library user groups.

Some of the noise management interventions described in this study are affordable and can be easily implemented in other libraries, while other interventions might be cost prohibitive and difficult to put into practice in some library environments due to space constraints. The library director was able to secure capital funding for significant library renovations; this solution is not one that many libraries are afforded. The article includes a table that displays specific interventions and the period in which they were implemented. However, because multiple interventions were put into place between surveys, the effectiveness of individual interventions could not be determined. Libraries wishing to use the evidence provided here may want to consider these interventions as a starting point but more fully investigate which would be most appropriate for their student population.

References

- Glynn, L. (2006). A critical appraisal tool for library and information research. *Library Hi Tech*, 24(3), 387-399. <https://doi.org/10.1108/07378830610692154>
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