A Happy Medium: Academic Library Noise from the Perspectives of Students and Librarians

Elizabeth Layton and Mark Love, Nicholls State University

Abstract

Balancing the needs of those students who prefer quiet study spaces with the needs of students who prefer to talk openly and collaborate with their peers is a challenge faced by many academic libraries. This review surveys articles published from 1981 to 2019 on the topic of noise in academic libraries and the views of librarians on how to address this issue as well as how students perceive noise. Keywords describing this topic were searched in scholarly databases, and the articles selected for this review were chosen by examining their relevance to this topic. The articles selected for the review described various means of addressing noise issues, including the use of noise meters, lighting levels, and seating arrangements. The authors present this review to assist academic librarians in dealing with patrons who prefer different volume levels.

Keywords: noise policy, academic libraries, noise, noise reduction, noise prevention, quiet, study habits

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Introduction

For generations, academic researchers have considered the library to be a place of silence. A certain decorum was expected in these buildings that curated collections and displayed information, but to most librarians that decorum is a thing of the past. Certainly, complete silence would be impossible to achieve, but what are librarians doing to monitor this new wave of researcher? Students are now, more than ever, using the library not only as a place for silent study before a test, but also a place for collaboration/group work, socializing with friends, and spending time between classes. Should a library enforce silence or learn to embrace this new type of patron? The research shows there can be a balance of both.

The literature reveals innovative and unique approaches taken by librarians in academic libraries to deal with the problem of excess noise. The focus of academic librarians in the 1980s was on methods to reduce noise emanating from patrons to create the quietest environment possible. (Bird & Puglisi 1984; Dole 1989; Luyben 1981) This would change in the 1990s and 2000s with the rise of the Internet, as libraries began to shift from focusing on collections and services to the creation of inviting and comfortable spaces for students to study and hang out with friends. (Bell 2008; Bernstein 2008; Ferguson 2009; Finlay 2006; Hronek 1997) The challenge for academic librarians went from strict enforcement of a quiet policy to the creation of noise policies that allowed for a balance between those who preferred a quiet place to study and those who desired a place to have open conversations with friends and classmates.

The authors of this article have chosen a sample of literature produced during the past few decades to provide insight on how the problem of noisy patrons can be

addressed from multiple perspectives. The authors hope that academic librarians will gain valuable insights that can assist them in crafting their own noise policies and in creating innovative approaches to accommodate the different needs of students.

Methodology

For the purpose of this literature review, we accessed the EBSCO Discovery Service and the database Library, Information Science & Technology Abstracts with Full Text (LITA).The following keywords were used to locate articles: *noise policy, academic libraries, noise, noise reduction, noise prevention, quiet,* and *study habits*. This is not meant to be an exhaustive list of literature produced on this subject. The articles selected were chosen for their relevance to the challenges faced by academic librarians in creating noise policies and in addressing excess noise.

Literature Review

A total of 26 articles were chosen, with publication dates ranging from 1981 to 2019. The review itself is arranged chronologically, to show how perspectives have changed, but also includes a section focused on student perspectives.

1980s

The attitudes and perceptions of academic librarians have evolved over the past few decades in regard to excess noise and the approach to address the problem. In the 1980s, librarians perceived excess noise as a nuisance that was disturbing the peace and quiet of the library. Bird and Puglisi (1984) describe efforts at noise reduction in their library in order to keep the library as quiet as possible. The staff rearranged the furniture and installed more study carrels in order to minimize group conversations. They also used decibel meters to measure noise levels and warned patrons about being too loud if the

decibel level surpassed a reading that was considered not acceptable. Surveys were used to determine student attitudes and reactions to noise levels prior to and after the decibel meters were used. Student attitudes at the time reflected a desire for quiet and an appreciation for librarian efforts to ensure lower noise levels. The authors indicated that their efforts in reducing noise were successful. The methods used in this study were replicated in more recent studies.

Luyben, Cohen, Conger, and Gration (1981) reflected the desire for quiet in their library with another research study aimed at reducing noise. The authors state that their efforts were in response to a multitude of student complaints about noise levels in the library. Again, as in the Bird and Puglisi (1984) article, the focus was on rearranging furniture and the use of decibel meters. However, the authors state that their study was inconclusive on the merits of rearranging furniture, unlike the results found by Bird and Puglisi. Their conclusion calls for further research to determine the most effective means to reduce noise.

The emphasis on eliminating noisy patrons continued with Dole's (1989) article on the effectiveness of using security guards to reduce library noise. Dole states the guards were used for a period of time to collect student identification cards (IDs) and to enforce library rules. As in the previously published articles, students were surveyed on their thoughts and attitudes toward library noise. In this case, students were also asked about the effectiveness of the guards. Dole reports that the students did not think the guards were effective, but also that noise would not keep them from using the library. This article is the first to describe more tolerant student attitudes toward library noise.

1990s

Few articles were published on the subject of noise in academic libraries during the 1990s. However, Hronek (1997) produced a noteworthy article that described the use of lighting levels to deal with the problem of excess noise. The author states that rearranging furniture or remodeling the physical layout of her library was not an option, so lighting levels were changed in certain areas to see if patrons were conditioned to use varying noise levels based on lighting. Lighting was reduced in some areas by removing two of the four bulbs in fluorescent light fixtures. Sound levels were measured in those areas and compared to noise levels in areas that were fully lit. As in previous studies, the staff used decibel meters to measure the sound levels. The library staff checked the decibel meters before and after adjusting light levels. The results reported no significant noise changes based on the lighting in those areas.

2000s

The prevalent use of cell phones by the early 2000s prompted more interest from librarians on noise in academic libraries and how to deal with the problem. Heaton and Master (2006) surveyed academic libraries to determine how librarians were dealing with the problem of noisy patrons with cell phones. The authors surveyed 27 academic libraries around the nation and found that many had a problem with cell phone noise. They also queried libraries on their policies for cell phone use. The libraries' responses to the surveys were not consistent, but the majority responded that their libraries did have a separate cell phone policy and that it was enforced in some way. Most libraries indicated that they used signage to address the noise, and only a minority used direct enforcement with staff or guards intervening with noisy patrons.

In 2007, Austin and Crumpton composed separate articles that were critical of

contemporary noise problems in academic libraries and argued that librarians should strive to address these issues. Both authors describe the efforts by libraries in the 2000s to create more relaxed, inviting spaces for students to congregate and socialize as beneficial. However, both argue that this effort comes at the expense of students who prefer a quiet environment more conducive to study. While Austin's article calls on librarians to address this issue, Crumpton provides concrete steps that libraries can take to solve the problem. Crumpton calls for librarians to monitor foot traffic patterns, post visible signs addressing the noise issue, and create specific policies to deal with noisy patrons. The article ends with the author arguing that unless libraries address what the author views as the problem of noisy, disrespectful patrons, there could be serious consequences. Although, Crumpton does not clearly define what these consequences are.

Criticism of the new noisy spaces in academic libraries continues in Bell's (2008) article. The author argues that the move toward "library as place" has alienated many students longing for quiet spaces to study. Bell mentions several methods to address the noise issue but primarily focuses on the use of quiet spaces or zones within a library to accommodate students seeking quiet while distancing them from noisy patrons. Like Crumpton, Bell warns that librarians need to address the noise issue or they will further patron complaints in the future.

Likewise, Ntui (2009) argues that library noise is a problem that needs to be fixed and that the well-being of library patrons requires a quieter environment. The author presents a study on library noise levels at an academic library in Nigeria. Ntui uses the World Health Organization (WHO) noise level standards for educational institutions as a benchmark to use when measuring the decibel levels in his library. As in previous

studies, the staff of the library used decibel meters to measure noise levels and distributed questionnaires to students. The decibel meters results showed that noise levels were higher than those recommended by the WHO. Students indicated that noise was a problem that affected their use of the library. Ntui then provides recommendations to deal with the problem of noise, including signage, staff enforcement of noise policies, and quieter equipment inside the library building. The author is emphatic that quiet is an essential element for students in an academic library.

In contrast, Bernstein (2008) argues that noisy patrons are an important part of the modern academic library and that librarians need to come to terms with the fact that libraries are no longer bastions of quietness. The author compares librarians dealing with this new normal to those individuals going through stages of grief when experiencing a tragedy. Bernstein describes librarians as initially responding in denial and anger over the problem of noisy patrons, but that when librarians move into the stage of acceptance they can begin to craft modern noise policies that balance the needs of students who desire a place to socialize and collaborate with those who prefer a quieter study environment.

Finlay and Fisher (2006) also express support for a more tolerant attitude toward noisy patrons and that there should be a balance between providing quiet areas and collaborative spaces that allow for a reasonable amount of noise. The authors describe an effort in their academic library to use color-coded signage as a way to direct students to quiet areas and to those areas in which noise is allowed. The signs included traffic light images in which a blue light signified a silent area, a red light signified a quiet area, and a green light signified a group area in which collaboration and talking were encouraged. Students were surveyed on their awareness of the signs and were allowed to vote on

whether the signage should remain. All students surveyed were aware of the signs and most voted for the signs to remain in place.

Ferguson (2009) also describes the use of color-coded signage to designate areas in his library that allow for noise and those that do not. Like Finlay and Fisher, Ferguson expresses support for the modern trend of providing collaborative spaces for students and decries the traditional "shushing" culture of libraries and librarians. Kappus (2009) reports the use of a color-coded system in her library as well. While the author is supportive of spaces that allow noise, she notes that numerous student survey respondents expressed a desire for quiet areas.

2010s

Franks and Asher (2014) presented a case study of four academic libraries and how each library dealt with the issue of excess noise. The authors surveyed staff at each library on how they addressed noise issues in their libraries. Results of the surveys mentioned several methods for controlling noise, including arranging of furniture to separate collaborative areas from individual study spaces, providing groups study rooms for groups, enclosing high-traffic, noisy areas to further separate them from quieter areas, and repurposing low-traffic spaces with reference books and microfilm readers to create more space for individual, quiet study spaces. Another finding from the surveys was that spaces with more comfortable furniture tended to be louder areas. Therefore, some libraries rearranged comfortable furniture to reduce noise levels. Students were surveyed at each library on their thoughts regarding library noise. The consensus theme from the surveys was that while students believed noise to be a problem, they also had a desire for collaborative spaces. This led the authors to conclude that librarians will face a challenge

in balancing the need for collaborative spaces and the need for quiet study areas.

In 2015, Aremu, Omoniyi, and Saka also looked at the topic from both sides. Like Ntui's 2009 article, the authors conducted a study of noise levels and students' attitudes toward noise in an academic library in Nigeria. The majority of students surveyed viewed the library as a quiet place, but a large number indicated that noise interruptions occurred frequently. The study of noise decibels showed that volume levels were higher during the daytime rather than at night and that most of the noise emanated from students and staff. The authors recommended that zones be designated within the library to allow for noise and other zones designated as quiet study areas.

McCaffrey and Breen (2016) acknowledge that noise is often cited by students as one of the biggest problems students have with library spaces and services. However, the authors also stress the need for collaborative spaces. The article presents an evidence-based study on the issue of noise in an academic library in Ireland. The authors conducted a seven-year study of noise management measures taken by their library using the LibQual survey application. LibQual is a web-based survey tool produced by the Association of Research Libraries (ARL). Students were surveyed after a major action was taken by library staff to address noise concerns. The staff primarily focused on rearranging spaces to allow for quiet areas and zones that permitted noise. A reading room was created as a quiet study space for graduate students. The survey results noted that students reacted positively to these changes. The authors report that formulating a specific noise policy, rearranging furniture, creating quiet zones, and providing quiet areas away from service areas were successful in dealing with noise problems.

Also in 2016, Lange, Miller-Nesbitt, and Severson discuss a large number of

noise complaints at their academic library in Canada. Like McCaffrey and Breen, the authors are supportive of collaborative spaces but acknowledge that noise complaints from students must be addressed. The article describes an effort to address noise problems using NoiseSign, which illuminated if the noise level in an area passes a predetermined decibel level. Unlike other articles, the authors used an evidence-based approach. Their hypothesis was that the NoiseSign would decrease noise levels in the areas in which it was posted. To test their hypothesis, the researchers utilized decibel meters and student surveys. The authors hoped that the illumination of the sign would encourage patrons to be quieter in louder areas. However, the results of student surveys taken prior to and after the installation of the NoiseSign did not suggest an effect on noise levels.

Kung (2018) takes a similar approach in discussing the effort to address noise issues at her academic library in Canada. Unlike previous articles, however, Kung designed a research study on noise levels using two specific technological components, Arduino and Raspberry Pi. Arduino is defined by the author as a small computer dedicated to a specific purpose. Raspberry Pi is defined by the author as a small computer that reads the data from the Arduino and puts forth a data file. In preparation for the study, she describes building a prototype decibel meter with these components. Kung states that this meter will be used in a future study to measure noise levels in her library. Although the results of the study were not provided, the author was hopeful that this new type of decibel meter will play an important role in addressing the noise issues in her library and perhaps other libraries as well.

Student Perspectives

Is noise truly an issue, or simply a case of "this is how it's always been"? There is an overwhelming number of articles that discuss theories on noise, but much fewer articles that discuss the patron's perspective on their needs. Academic libraries measure this need in a variety of ways including surveys before or after an event, monitoring chat transcripts, or utilizing a comment/complaint box. Many articles state that staff and faculty observations are not enough to classify students' study needs, and more research is needed to draw conclusions. Generational research is often used to predict what students will need when they reach college age, but even then it can be difficult to predict what the students' study habits will be. Because of this, librarians are often torn on what direction to update their policy, which is why surveys and observational research are such valuable tools. Regardless, to ensure students are continuing to utilize the library and feel comfortable in the space, the environment and noise levels must adapt to fit the students' needs.

In 2009 Applegate of Indiana University conducted observational research focusing on students and their use of study spaces while in the library. All research conducted for this study was observational and provided the librarian with insight as to what exactly the students needed. She noticed that some sought out "soft spaces" such as sofas and comfortable seating, while others wanted a variety of workstations. Applegate observed that no student was married to a specific study space, but instead changed based on who they were with, or if they needed an outlet for their electronic devices. Some had routines and preferences, but there were others, who chose to study in groups or individually based on the project they were working on at the time. These needs also

changed depending on where they were in the semester, as more students seek out individual "quiet" spaces at the end of the semester while being more social and talkative in the beginning and middle. Applegate expressed the importance of libraries shaping their policies based on the students' study needs and perspectives of what a library needs to be for them. Current students are multitaskers that not only need a place for research assistance, instruction, and computer use but also a place for social interactions and eating. Applegate argues that an effective library design takes into account all of these needs and creates space so every type of student feels safe, comfortable, and represented. These aspects are predicted to increase not only the students' satisfaction but also lengthen their stay in the library.

Both Yelinek and Bressler (2011) wrote their own review of the literature up to that time, analyzing the history of libraries and their relationship to noise. Whereas libraries had begun as warehouses for information, they were clearly moving in a new direction. Yelinek and Bressler coined the phrase "information commons" to acknowledge this transition. Millennials (1981-1996) are where they pinpointed this shift; this generation of students requiring a noise policy that allowed conversational levels of noise as well as changes to food policies. This generation was observed as the first to multitask, possibly due to a combination of full-time work as well as full-time school schedules due to economic shifts.

The authors mentioned studies in which students named the top three things they needed in a library, to study alone, to use the computers, and to study in groups. Though these needs are contradictory, libraries must try their best to accommodate both. Mobile furniture was introduced to allow for socialization, food policies were relaxed to allow

for more multi-tasking so to increase an environment that was conducive to fit the students' needs and extend their time in the library. Yelinek and Bresser (2011) reviewed a multitude of solutions that others had tried before, including posting guards and lowering lights, but the only thing that had universally seen positive results was to implement noise level zones. This would provide the students with the best of both worlds, keeping them satisfied and in the library.

Sometimes it takes more than a librarian's observations to understand exactly what it is the students need. In 2013, Bedwell (a research librarian) partnered with Banks (a student in social anthropology) to observe how students adhered to noise policies and blended social and academic activities. The authors made observations as to when and why a student chose quiet study or group study spaces and how these choices were affected by ambient noise. At the end of the study, an extensive amount of data was collected during eighty hours of observation and shared with the professor leading the seminar, the student assisting, and the librarian. The observations were noted as being conducted during the final month of the fall semester to ensure the study was conducted during the busiest time.

One thing, in particular, that the authors noticed was the students and their relationship to ambient noise, or other conversations, was that as long as the zones did not interfere with each other and each zone was enforced, students had no problem with the quiet or the group study. The only time that aggressive behavior arose or a student was displeased was when group study tables were too close to the quiet study spaces. The aggressive behavior unfolded in the form of pressured self-policing in these areas. The students, as well as the individuals conducting the observation study, acknowledge that

the best way to handle these encounters is to have clearly defined individual and group study areas that are separated more than a thin non-soundproof wall. In a perfect world, floors would be labeled with volume levels so students had clear expectations and policies were in view to ease enforcement, not only with students self-policing, but also with the library staff who are responsible for enforcing the policy. Regardless, the students who sought individual study spaces still wanted to be near the community, not isolated, and sought quiet, but not total silence.

In 2015, Andrews and Wright examined students' study habits. Their findings provide insight into how students' study habits affect noise level needs. By utilizing space observations, surveys, interviews, and focus groups from 2006 to 2014 the authors were able to gather a large sample size. The results were very similar to those that had conducted survey research before them in other libraries. The students acknowledged the need for an individual as well as collaborative study space depending on the time of the semester as well as what kinds of projects were assigned to them. The survey also revealed commuter and traditional students might have different needs because of their length of stay on campus.

The researchers observed a need not only for two different types of study zones in order to facilitate an isolated space for quiet, but also a space that was conducive for group or social interactions. Commuter students also sought a "break" zone where students could give themselves permission to take a break without feeling guilty because they were still in the library, and felt as though they were still learning simply by being in the building. These separate zones would assist the librarians with monitoring varying noise levels as well as preventing disruptions on both sides of the spectrum so all needs

were met. This choice would lower noise complaints because there were designated zones, and librarians could focus on keeping stricter moderation in zones designated for silence. Separating sound by floors or zones is repeatedly observed as the best answer for the noise levels. Students are ever-changing with their study needs depending on their classes, major, and study habits. Students are also continually evolving in how they perceive the library, as what it should and shouldn't be and this solution keeps everyone happy and studying in the library.

May and Swabey (2015) surveyed students on how they viewed the library. With a combination of observations, as well as survey questionnaires, these two librarians were able to distinguish exactly what students used their library for. According to the questionnaire, over 75% said in the past year they had used the library to socialize, and of that same group, 67% said they had used the library for group study. Though individual study was never mentioned, 27% of 9,268 students were observed using the individual carrels. However, the questionnaire did "Was the library a good place to study alone?" to which the response seemed more mixed. Most students preferred to at least bring one friend for motivation; in a similar fashion that one might use a workout buddy for accountability. Others admit to multi-tasking so they can socialize while getting their work done. Some even admitted that they knew it could be noisy sometimes, but they recognize their contribution to the noise. Some speculation suggests that students simply have different standards to noise levels than in the past, which creates a higher level of tolerance for noise. Technology can also be a factor, as students have resources, such as headphones to block out any unwanted sounds.

At Texas State University, a study in 2018 acknowledges this change in students

with the arrival of the generation z student body. Academic libraries are meant to adapt to their patron's needs, and this new generation needs a location or third place, much like a coffee shop or park, that they can multitask their priorities where nothing is expected of them. Libraries are often chosen to be this third place because there are free resources at their disposal. The study focuses on the simple question: "how do you work," and was conducted by a survey that was handed not only to undergraduates but graduate students and faculty as well. Though the goal was to receive at least a 10% response rate, they received 4% undergraduate, 12% graduate, and 37% of faculty feedback. Of those individuals, 85% selected they enjoy working alone often, while 63% said they also work collaboratively often. The study does go deeper, analyzing the spaces they used, the services they prefer, and countless other variables into a student's study habit, all of which lead back to the same conclusion: there are far too many varying needs for a library to only default to quiet study.

Emily Winter (2019) also touches on this topic but instead focuses on the generation z (1997-2012) student and how their study habits are unique to even the millennials before them. Whereas they do mimic the millennial generation (1981-1996) in their need to multitask, or "blending" their tasks such as studying, socializing, and eating, these students also require a certain amount of solitude. She observed the students doing something called "nesting." With nesting, the student needs personalization to their study environment. This generation of students bring drinks, blankets, headphones, and other items to "cocoon" themselves, or set up their study space for occupying much longer than other students. These students do seek silence but are observed the very next week with a group multitasking again. These observations without a doubt influence noise levels as

well as sound level needs, which once again solidifies the need for separate noise zones for each student's multi-faceted needs.

In 2019, Stemmer and Strawser conducted a study analyzing the student population's opinion on library study space and what they expressed they needed. Though this study was originally conducted to provide insight as to what should become of a newly vacant floor that was offered to the library, the survey results were surprising as to what the students perceived as essential. An analysis revealed that the students needed both group and individual study spaces depending not only on what type of assignments they are working on but also because students needed socializing for their own mental health. This was interpreted as some students with high anxiety might seek silence on stressful days, while on low-stress days they would want to interact with others. When asked to rank the importance of group study, 60% indicated it was essential to their study needs, and 62% ranked solitary quiet space as just as important. This demonstrates that there is indeed an overlap between those that require individual solitude, as well those who desire study groups. The authors state that librarians should do their best to design a library with both perspectives in mind, that of the social students, and that of those individuals who require quiet solitude.

Conclusion

In an academic library's best-case scenario, the goal when it comes to noise levels should be variety. There are a vast amount of ways to combat noise, but there is a studying style for everyone, and students simply do not feel welcome in a space that demands silence. Gone are the days that academic libraries prided themselves on their lack of noise and the stereotypical librarian provided no leeway to collaborative learning.

Students have group projects, they have online classes, they come to libraries just as much to socialize as they do to learn, and that librarians should recognize our role in their lives as the third place for them. Librarians should provide silent areas and have students talk at conversational levels. However, it is the best interest of librarians to not foster the stereotype of the library. It isn't inviting, and if a student doesn't feel they are welcome with their friends to study, they are not likely to become repeat patrons because it inhibits their opportunity to multitask.

Noise policies are one of the many areas that librarians are currently re-evaluating. Is the silence worth it? Is the silence worth alienating those who work better in groups? Is the fear of adaptation worth losing the sound of information being traded and new ideas emerge? Academic libraries are so much more than a place to house literature, and it is the librarian's job to ensure every space to live up to its fullest potential, which in some instances, includes exciting chatter.

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Elizabeth Layton, Access Services Librarian, Ellender Memorial Library, Nicholls State University; elizabeth.layton@nicholls.edu

Mark Love, Government Documents Librarian, Ellender Memorial Library, Nicholls State University; mark.love@nicholls.edu