Project Shhh! A Library Design Contest for Engineering Students

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Background

Bern Dibner Library of Science and Technology is an academic engineering library supporting the teaching and research needs of the faculty and student body of the New York University Tandon School of Engineering. Tandon maintains a student population of about 5,000 students, with roughly an even distribution between undergraduate and graduate students [1]. Located in Brooklyn, New York, Dibner Library is in an urban setting and serves commuters, students living in dormitories and apartments near campus, and students from the Washington Square Campus in Manhattan. Bern Dibner Library is the second largest library within the New York University Libraries system.

When Dibner Library opened in 1992, the library served a much smaller population than it does today. Over the years, the engineering school steadily increased enrollment and, after becoming part of the NYU Libraries system following a merger in 2014, the potential number of patrons increased dramatically. The merger prompted the library space to be reconfigured to create more seating in order to accommodate the expanding patron population. Simultaneously, a shift to electronic-preferred book and journal collections led to the removal of library stacks. These changes increased the total number of seats in the library, but came at a cost. Not only were there more patrons in the library, but the removal of stacks also led to large, open spaces. Although hardly anyone was reading bound journals anymore, the book-lined stacks had been serving a purpose—both dampening sound and creating study nooks. Another piece of the original library design which did not mesh well with the current use of the library was the open atrium between the first and second floors. Designed with idea to let sunlight come in through skylights and windows on the top floor, this open space between the two floors became a conduit for noise pollution once the library was being used beyond its original capacity.

In 2016, Dibner Library issued a LibQual survey to its patrons in order to assess information control, affect of service, and library as a place. 182 members of the NYU Tandon community responded to the survey, of which 65 were undergrads and 108 were graduate students. The library was found to be underperforming in the category of library as a place. Of the 93 comments made by respondents, nearly two thirds of these comments were related to library spaces and noise levels in the library. Example comments included remarks such as, “Noise levels are too high and have gotten worse. I think I’m not alone in that I would like more quiet places to study, and those areas should be clearly set aside for quiet study” and “Terrible noise problem. Too much of an open space. It was poorly designed.” Ultimately, these space and noise issues caused some patrons to stop visiting Dibner Library altogether and to seek out other, quieter study spaces. As one patron put it, “There are not enough quiet places in the library to study. I can never find a seat and I can never concentrate. I stopped coming to Dibner because of this.” The Dibner staff took these complaints to heart. While we could not add space to the library, we began to think of ways in which we could alter the space we had in order to create a library environment conducive to both quiet study and collaborative work. We began a series of studies in order to better understand our use of space and noise issues, including routine occupancy counts and decibel readings. We also encouraged students to report noise issues to the front desk so that we could confront excessively loud patrons or shift groups into study rooms. In addition to these efforts on our part, we began to think about our specific patron population of engineering students, a group of people particularly adept at solving problems. We
wondered if there was a way to incorporate not only the student complaints about noise and space, but also their input about how to make library improvements.

**Introduction and Literature Review**

Dibner Library is not alone in a shift towards fewer books, more seating, and consequently, more noise complaints from patrons. Yelínik and Bressler outline the changes to academic libraries over the past fifteen years which created a “perfect storm” of noise issues [2]. Their paper, which focuses on a literature review of articles from the 1980s (before the “perfect storm”) until 2010, reveals that while an increasing number of articles about noise complaints in libraries were written, very few articles address how to solve this problem. When assessing what current students, defined as “digital natives,” “Millennials,” or “Generation Y” want in a library space, the authors found they primarily desire a study space, whether alone or in a group. “They want more computers; they expect to be allowed food and drink in the library; they want flexible, mobile furniture to re-arrange when needed for collaboration or socialization; they want seamless, user-friendly Web-based services; and they expect access to library resources and services 24/7…But they also want quiet” [2].

In response to noise complaints, libraries have experimented with instituting noise level zones [3], restricting cell phone use to high-traffic areas [4], crafting written policies for noise [5], and creating signage [2]. At Middle Tennessee State University, librarian Jason Vance plotted noise complaints, submitted via library chats, onto floorplans of the library in order to better understand noise patterns [6]. The chat data allowed him to chart out complaints by time of day, day of the week, weeks within the semester, and specific library locations. By also ensuring that librarians staffing the chats asked exactly where the noise was located, he was able to identify areas where loud spaces (such as the bathrooms, elevators, and group study rooms) abut quiet zones as the most problematic spaces [6]. Drexel University aimed to solve noise and behavior issues in the library by installing a Courtesy Clerk, a full time staff member who maintains a “safe, pleasant, and courteous atmosphere in the library” [7].

Most academic libraries with noise issues are also facing space and design challenges. One of the more common problems occurred as libraries shifted to function primarily as study spaces, or were rebranded as “learning commons,” with open floor plans and fewer—or nonexistent—book stacks [8]. Electronic resources better suit today’s user needs; however, physical shelves help to dampen noise and provide areas that feel private while not being completely isolated study rooms [9]. In a study of library use at Indiana University Purdue University Indianapolis, researchers found that students’ favorite place to study, whether in a group or alone, were study rooms and that library carrels, another more private study space, were the second most popular study area [8]. These studies suggest that the increasingly open design of academic libraries tends to contrast with patrons’ desire for private, quiet study.

In addition to addressing excessive noise and adapting library spaces to users’ expectations, libraries are evolving their outreach methods to more effectively engage with patrons. Although it may be related to advertising or marketing, library outreach is distinct in its mission not only to promote services, but to actively engage with patron needs [10]. Library
outreach functions as a way to help patrons identify basic needs and to make the most of services provided to them. For example, graduate students may have a specific need to learn about research grant opportunities, but may not know that the library provides workshops on this topic. By conducting outreach to this patron population, the students not only benefit from this particular workshop, but also learn about other library workshops which could bolster their academic pursuits. Meanwhile, the library is able to gain insights from workshop attendees about how they could alter or adapt workshops in order to best serve this patron group [11]. In order to attract students to services, a recent trend in library outreach is gamification [12]. Turning orientation or information literacy sessions into games not only entices students to participate, but also encourages them to “interact with information for problem solving and discovery-based learning when using the library to conduct research for class” [13].

Gamification and project-based learning are very common approaches to education in engineering. Since the engineering discipline is primarily an applied science, experiments and competitions challenge students to apply concepts learned in the classroom. Project-based learning develops valuable critical thinking, creative problem solving and teamwork skills needed to be effective professionally [14]. A hackathon study done at Arizona State University, demonstrated that students learned the value of collaboration when given a time constraint to solve a problem, since they had to rely on others to perform different functions [15]. Hackathons are among a number of various problem-solving competitions done at universities and even technology companies like Yahoo and Facebook allowing participants to apply innovative approaches to problems [16]. At the Tandon School of Engineering, students participate in many different competitions including the ASCE Concrete Canoe Competition, the Baja SAE Competition, and Tandon's own prototyping competition: InnoVention. Engineering students participate in these competitions to problem-solve in creative and collaborative ways that further motivates their pursuit of knowledge [15].

As is often the case, problems can present themselves as opportunities. We were quite inspired by Case Western Reserve University Kelvin Smith Library First Floor Redesign Contest, a “competition that challenged students to re-envision the main floor of the library” [17]. Three teams of students competed in the challenge, which involved meeting with librarians, submitting proposals, and giving a presentation. The first place team was awarded $2,500 for their efforts. This challenge to students works on two levels: it is both an active engagement of patron input through library outreach and it is an appeal to a population of users who are adept at solving problems—engineers. Following the lead of this particular library contest, as well as our knowledge of competitions as a way for engineering students to engage in real world challenges, we decided to sponsor our own library contest as a way to tackle our persistent noise and space problems in Dibner Library.

Planning Project Shhh!

Once we knew that we wanted to solve our noise and space problem by engaging students in a design competition, we needed to identify desired outcomes, secure funding and administrative support, determine contest parameters, and devise methods for student outreach. From the outset, we knew we wanted the students not only to devise creative solutions, but also
to practice skills such as gathering research in a literature review, thinking through methodology and experimentation, crafting a written proposal, and pitching their ideas through in-person presentations. In return, we wanted to be sure we were providing students with the necessary support and resources to meet all of these deliverables. Besides identifying ourselves as “mentors” to the teams, we also consulted with faculty in related fields to gain advice in terms of what might help students to meet these goals logistically (for example, multiple deliverables spaced out over the course of the contest) and operationally (for example, determining specific research topics and workshops). These faculty meetings resulted in recruiting an electrical engineering professor to sign on as a Project Shhh! mentor, as well as enlisting a computer science and engineering professor to give a workshop on his research in computer modeling of people’s movements in complex spaces.

We decided to create a LibGuide, which served as a homepage for the contest [18]. Our LibGuide included tabs for Contest Parameters, Timeline and Prizes, Useful Resources, Judging, and Terms and Conditions. While most of these tabs were a reminder of contest rules and deadlines, the Useful Resources tab included a variety of information sources, such as prior statistics about Dibner Library, tools like free decibel reader apps, and related subject databases. We also included all of the mentors’ contact information on the LibGuide—another resource to the contestants.

We were lucky in gaining enthusiastic support from the head of Dibner Library to conduct this contest. In addition to allowing us to devote work time to this project, she also helped us to secure funding for a kick-off event, prizes, and implementation of the winning design. The library’s budget supported the cost of the food at the kick-off event, a first prize of $500 a second prize of $250, and $2,500 towards an implementation budget. Tandon’s administration pledged to cost share another $2,500 towards the implementation budget, giving the contestants a possible budget of $5,000 for their proposals.

Once we had the support of our library head and our funding was secured, we were able to zero in on contest parameters and conditions. The overall contest mission was as follows: “The goal is to develop an aesthetic design, which creates a library environment that supports student study by reducing noise and clearly delineating individual quiet spaces from collaborative group spaces.” While we wanted the solution to be as open-ended as possible, we also needed to put in place real world constraints. For example, the students needed to be mindful of the $5,000 implementation budget and could not propose a solution outside of that budget. We also told students we could not make significant changes to staffing or spend more than 25% of the budget on staffing. This prohibited a solution like hiring a full time courtesy clerk, like at Drexel, but it could include a small added duty to a current staff member’s job, like monitoring an installation. We also gave the teams the option of submitting a pilot project within the budget, which could be scaled up in the future. Teams were also instructed to keep the aesthetics of the library in mind.

Finally, we identified faculty and administrators who would create a multidisciplinary panel of judges and created a judging rubric, which was shared with both the judges and the contestants at the start of the contest. Our judges included: the head of Dibner Library, a professor from the Integrated Digital Media Program, the manager of the Tandon Maker Space,
Contest Marketing and Outreach

Our initial marketing for Project Shhh! directed students to an online Qualtrics survey that could be used to sign up. We regularly monitored the number of students that had completed the application. In observing that a number of students clicked into the survey but did not complete it, we opted to change our marketing and hold a kick-off event where students would learn more about the details of the competition, meet some of the judges, look for teammates if they were inclined and sign up for the competition.

We promoted Project Shhh! both within the library and around campus. We chose librarian action figure Nancy Pearl as our advertising icon. We hoped the comical image of a shushing librarian would stick in students’ minds and it had a logical tie to the contest objective. We featured Nancy Pearl on our LibGuide, posters in our library, flyers, and on screens around campus.

In addition to this passive marketing, we also engaged in active outreach to student clubs. We focused on student clubs who should have a natural tie to innovation and design solutions. These clubs included: Patent Pending at NYU Tandon, Design for America, Entrepreneurship and Innovation Association, and the NYU Tandon Student Council.

Contest Execution
The competition required four deliverables from the participants. The first was a non-binding initial concept. The participants were asked to draft a few sentences about how they planned to approach the problem and submit it within a week of the kickoff event. The purpose of this deliverable was so that the mentors could expand the LibGuide to include relevant resources based on the ideas that were submitted. The second deliverable required was a written proposal. This was submitted about halfway through the competition in mid-December. In the written proposal, the students needed to provide a detailed outline of their concept. They needed to explain their idea, give a preliminary budget estimate, and discuss how their plan would address the space and noise issues in the library. We used this proposal to make sure that students were taking the contest seriously and only allowed teams that submitted quality proposals to become “finalists”. The last two deliverables were the presentation report and the oral presentation. The report was due a week before the oral presentation so that the judges would have time to look them over. The presentation report was an expansion of the written proposal. It had the students provide a final budget, a full explanation of how their plan could be implemented. It required that they describe and justify the impact it would have on the library space, noise, and aesthetic. In order to justify the impact, students needed to provide a review of the research and/or tests they conducted. For the oral presentation, the groups were given 5-15 minutes to pitch their concept to the panel of judges. The format of the presentation was up to the participants but it required some kind of visual component such as a 3D model or a mockup.

In order to maximize student-learning opportunities during the competition, we set up several workshops over the course of the contest. During the fall semester of the competition, the workshops were focused on available resources as well as sessions with researchers that worked in relevant fields. The first session was at the university’s newly built Maker Space. The intent was to inform the students of some of the new resources on campus that they may want to incorporate in their projects. The next workshop was with a professor from the university’s Center for Urban Science and Progress. He presented his research on using computer modeling of people in spaces. While we didn’t expect the students to create these kind of sophisticated algorithms, we wanted them to see where research into space design could go and to think about some of the conceptual points illustrated through this researcher’s work. The third workshop was with the mentor librarians. It focused on research skills as well as addressing any questions the students were having. It became clear during this workshop that the students did not fully understand what it meant to do original research, both in the sense of digging into literature and in the sense of designing and implementing their own tests. After the workshop, when it became apparent to the students that the librarians could help them with those kinds of questions, we saw an increase in the number of emails and one-on-one consultations from the participants regarding their projects.

In the spring semester, the workshops switched focus towards the final report and oral presentation. Two workshops were held, one regarding data visualization and one regarding how to conduct a sales pitch, both were hosted by the librarian mentors. In the last week of the contest students were encouraged to set up one-on-one consultations with the mentors and every finalist group set up at least one consultation. In addition to all of these workshops, a Google document was also created where the students could place questions they had about their budget
and how to estimate costs. One of the judges, a member for the university’s financial operations team, would periodically check the document and respond to the questions.

Time was allotted throughout the contest for the students to run tests in the library space. This provided the contestants with an opportunity to collect some of their own data about the effectiveness of their design ideas. Non-invasive tests could be performed at any time, but they needed the library’s permission if they wanted to perform invasive tests. We gave the examples of distributing surveys, taking occupancy counts, and taking decibel readings as non-invasive tests and the examples of actively creating loud noises in the library, construction, or moving furniture without permission as invasive tests. Since our patrons were already complaining about noise and space issues, we wanted to ensure that our contest would not make these issues worse.

The judging rubric was created in advance, reviewed with contestants at the kick-off event, and posted to the LibGuide. Our support and workshops were optional, but they were intentionally aligned with our judging parameters in order to encourage students to get the most out of the contest. The final proposals were judged on six categories:

1. Impact (20 points): How will the submission address the issue of noise and library space?
2. Feasibility (20 points): How easily can the design be implemented into the library and how much upkeep might it require?
3. Contextual Inquiry and User Experience (20 points): Did the team consider the users of the space (both the librarians and patrons) in their design?
4. Proposal (20 points): Overall quality of the written report (10 points) Overall quality of the oral presentation (10 points)
5. Creativity (10 points): How innovative was the design solution?
6. Design Aesthetic (10 points): How well the team regarded the library’s current aesthetic.

Each time a student attended a workshop he or she gained one bonus point (for a total of 5). Students would be penalized 50 points if their design did not adhere to budget or staff restrictions, or if the students interfered with the library’s operation outside of the allotted time for testing.

The Teams’ Proposals

At the beginning of the competition seven teams submitted initial concepts. Over the next few weeks, three of those teams dropped out. One team cited the excessive length of the competition over two semesters as their reason for not staying in the competition. Four teams submitted written proposals, yet one of those teams dropped out before the final round, leaving only three teams to compete in the finale. These three teams maintained good participation over the course of the entire competition. They attended workshops, took advantage of one-on-one consultations with mentor librarians, and had done some type of observation in the library environment to test their proposed designs. Each of the three finalist teams had unique
approaches. Team Silento presented an electrical engineering robotics approach, Team Innovation focused on library zones, policies, and signage, and Team Zicsole incorporated ideas of environmental psychology and commercial shared workspaces into the design.

Team Silento read articles about reducing noise in academic libraries and decided to use their background in electrical engineering to solve the problem. They also conducted a survey of Dibner Library patrons to get feedback about how these stakeholders would respond to a shushing robot in the library. Their final proposal presented the HushBOT, a device that includes inputs to detect high decibel readings, as well as manual buttons for library patrons to push when they are bothered by noise. The system also includes speaker outputs, which emit a “Shhh” sound in the noisy area (as identified by the decibel reading input). Team Silento’s survey findings confirmed that students in Dibner Library think noise is a problem (56% replied that it was too loud), but that most students did not verbally ask others to be quiet because they are “too shy/lazy” (46%). Finally, Team Silento asked, “If there was a button on the table that can tell those being loud to shush, would you use it?” 72% of the students surveyed responded “Yes, it’s worth a try.”

Team Innovation employed a mixed-methods research approach to fully understand Dibner Library’s stakeholders and proposed a plan to mitigate noise through rearranging existing furniture, zoning, signage, and clear policies. They read articles about reducing noise in academic libraries and zeroed in on the issue of the perception of sound, rather than the absolute decibel reading, as an important psychological factor in terms of whether a space is perceived as noisy. They collected data from library patrons in a number of ways: through interviews with stakeholders, which they identified as library faculty, staff, students, and other patrons; through entry and exit surveys of patrons during finals week; and through observational occupancy counts, which they visualized in heat maps. All of this information was used to inform their proposal to move the printers, a cause of noise themselves and a place where people tended to gather and chat, away from the quiet study area. They also re-mapped the zoning system currently employed by the library to make the entire 4th floor a quiet zone in order to prevent “hot spots” of noise between the collaborative and quiet study areas on that floor. Additionally, they worked within the restricted budget to propose rearranging extant furniture in ways that would block sounds and to create new signage with clear definitions of what noise levels are allowable in each zone. Finally, they re-named the current zones from “silent,” “conversational,” and “collaborative” to “silent,” “quiet,” and “collaborative.” This team, with their intent focus on stakeholders, was similarly interested in providing clear communication to patrons, soliciting patron buy-in about behavior in each zone, and recommended following up with an assessment survey after the proposed changes to evaluate any changes to patrons’ perception of noise in the space.

Team Zicsole, coming from a design background, was interested in how the aesthetics of a space can influence noise perception. In addition to reading articles about noise problems in academic libraries, this team also looked at photographs of libraries considered to be the most beautiful or iconic in the world and consulted books such as John Zeisel’s “Inquiry By Design-Environment/Behavior/Neuroscience in Architecture, Interiors, Landscapes, and Planning.” This group was also inspired by the workshop given by Dr. Paul Torrens on his project “Simulating Streetscapes: Using computer modeling to solve a real-world problem.” Team Zicsole
interviewed Dibner Library patrons and asked how they felt about the noise levels in Dibner Library and how they felt about noise levels in other libraries. They also interviewed the staff at Wework, a communal working space, to ask how they manage noise levels and create an environment of mutual understanding about behaviors in the space. This team found that while Dibner Library had signage about zones, the signs seemed scattered to patrons, or they hadn’t noticed them, or they weren’t sure exactly how to interpret the labeled zones in terms of noise level and behaviors. Zicsole’s proposal was to change the patrons’ psychological perception of the space by installing artistic elements in the library. Large free-standing art installations were meant to serve a number of purposes: give a feeling of privacy in a large space, buffer sound, and create a more calming atmosphere. They also recommended aesthetically-pleasing acoustic panels in cool tones to be arranged on the open cut-outs between the third and fourth floors to provide both sound dampening and a calming effect.

**Contest Outcomes**

The final Project Shhh! event featured oral presentations from these three finalist teams. The audience was made up of the judges, the mentors, as well as any students and faculty who were interested in seeing the presentations. Each team was given up to 15 minutes to present their research, substantiate their claims, and demonstrate the effectiveness of their design concept. After each team presented, judges were given an opportunity for questions. Afterwards, the judges deliberated amongst themselves and scored each team according to the judging rubric. Once the points were added up, the winning team was announced as well as second and third place.

A few weeks after the final event, the librarian mentors organized a focus group to get feedback from the participants about the outcomes of the competition. Two students representing two of the teams attended. Both students referred to the LibGuide and met with librarian mentors during the competition.

One of the students very much appreciated the workshops done during the competition, particularly the workshop hosted by the professor from the Center for Urban Science. She explained, “[The professor] gave us a lot of useful information and different dynamics of how to look at the competition. Although, I won’t be using it at this stage, I know that’s what I can do in the future. And, also, he used mocap and mocap is motion capture. That’s in MAGNET, which is my major building-- Digital Media-- so it’s something I--maybe in the future--it’s something I can incorporate with whatever I am studying.” This was a really encouraging response for us, because it meant that the workshop accomplished the intended goal—it exposed the student to current research in the field, related both to the competition and her major, and helped her to make a connection to other resources available to her at the university. When asked if the librarian-hosted workshops were just as helpful as the researcher-hosted one she replied, “I found it totally interesting because you guys are really good at what I’m not good at. It’s amazing to see you guys find information so quick and smoothly. I would just give up. I don’t know what to do.” While this student appreciated and attended all of the workshops, she understood why other students may have lacked the time to be able to attend all of the talks.
The other focus group participant regretted that she did not meet with the librarian mentors sooner, as she only realized how much we could help when it was late in the competition. Both agreed that the mentors as well as the LibGuide and its resources were incredibly helpful. Commenting on the library mentors tied to the contest, one student said, “I think we had a really good rapport, so I really enjoyed learning so much from you all because you all had such different sides to it…I think it was great having you all as mentors because you all were in the space, like always, more than us.” The other student added, “For me, it was really helpful, but I’m, like, very shy, so there were times when I should have talked to you in advance, but I just didn’t do it. And I didn’t know you were good at Photoshop and stuff, I learned that in the end.”

Scheduling and devoting enough time to the competition were cited by both of the focus group attendees as difficulties. One suggestion was to make meeting in person with the mentors required since very often students may be shy or slow to get things going on their own. As this student explained, “Office hours. I know you guys are super friendly, but I’m just super shy. So, psychologically, yes, because I would know that is dedicated time to this project and I’m not intruding on your time.” While the contest was labor-intensive for both the participants and the librarians, it yielded very meaningful results for the students who saw the competition through. When asked if they were more likely to ask a librarian for help after completing the contest, one student replied, “I think now I would probably ask. We know what a librarian can offer so much more in terms of research or developing an idea. We definitely-- I think it’s changed our perception. Early on, I’d probably go to a professor or something [instead].” The other student simply stated, “I would talk to you guys because I know you guys. [Before] I didn’t know you guys existed.” Overall, the students were very positive about the outcome of the project regardless of their placing first, second or third. Their relationship with the librarians was transformed as well as their view of the library and the power they had to solve a problem in a community space to which they belong.

After the completion of Project Shhh!, the Dibner librarians met to go through each of the ideas presented by the teams and discussed implementation of the design proposals in the library. While each team’s ideas could be effective separately, some parts of all of the designs could be implemented together to be even more successful. Some ideas were immediately implemented, like bringing increased power outlets to all parts of the library, as well as changing furniture and increasing signage in silent zones. Other parts of the implementation process are still in the works, like the robotic “HushBot” solution. Beyond library design solutions, the project helped form a better relationship with the student participants. In the end, the contest aided both librarians and contestants. The students gained experience in real world problem-solving, data collection, research, and presenting proposals. The librarians better understood the needs of the patron population and used contest ideas to improve the library space for their users.

Future Plans and Conclusions:

After the completion of the competition, and following the focus group feedback sessions, we began discussions regarding the future of Project Shhh!; what needed to be changed or improved upon if we were to hold the competition again. There was a long conversation
about what should define the competition if we were to do it again. Does it need to be focused on sound and space in the library? Did it need to be focused on the library at all? Ultimately, we decided that what defined Project Shhh! were the opportunities and experiences it afforded the competitors and not the problem they were looking to solve. We felt that any problem statement that was focused on a need within the university, but broad enough that students could approach it from multiple disciplines could work, and that if the library could serve as a model for that need all the better. What defined the competition, in our opinion, were the opportunities to meet with researchers around the university, and the mentoring and training sessions provided by the librarians. We considered the project successful because the students gained valuable experience about the kinds of academic research going on at the university and gained first-hand experience in conducting their own research as well as designing from that data. The implementation of their concepts into the library was just an added bonus.

There were a number of logistical lessons we learned throughout the process as well. First was the use of a kick-off event. We learned quickly that it was easier to get students to attend a kick-off event where they could learn about the competition, find teammates, and sign up, than it was to ask students to directly sign up. We also recognize that it is important to have a solid timeline before the competition begins. That timeline should reflect both the dates the competitors will need to submit their deliverables, and also the dates of the workshops and other events. In planning this competition our original schedule, given out at the kickoff, set the workshops for a specific week, and the actual date was given out a week or so before hand. This lead to confusion and scheduling problems. There was also unexpected confusion on how the designs should be judged. Formal meetings with the judges before the competition starts and before the final contest submission would help to make sure the judges have clear understanding of what is expected of them and how the judging will work. We also realized from the focus group that finding partners around the university, such as departments or relevant clubs, to help promote the competition is important to getting students interested.

We are hoping to hold a second Project Shhh! This upcoming fall. We are planning to make the problem statement focused around making the campus more “green” or sustainable. We think a statement like this opens the doors for students to explore technological, psychological, and design solutions. We have begun to identify several possible partners around the university such as the NYU Department of Sustainability, as well as research labs focused on urban environments and environmental engineering. We hope that with strong partnerships and a thought out marketing plan we will have another successful competition.


[17] “Kelvin Smith Library: First Floor Redesign.”