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New Look at an Old Space: Participatory Design Research at a Liberal Arts College Library

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Canaday Library, Bryn Mawr College

Anticipating major physical renovations, Bryn Mawr College Information Services staff members analyzed students' use of space in Canaday Library, the College's main humanities and social sciences library, in 2012. Our biennial customer service survey data has shown that our patrons want to have input into library decisions that affect them (MISO 2010, 2012, 2014; Figure 1). When seeking community

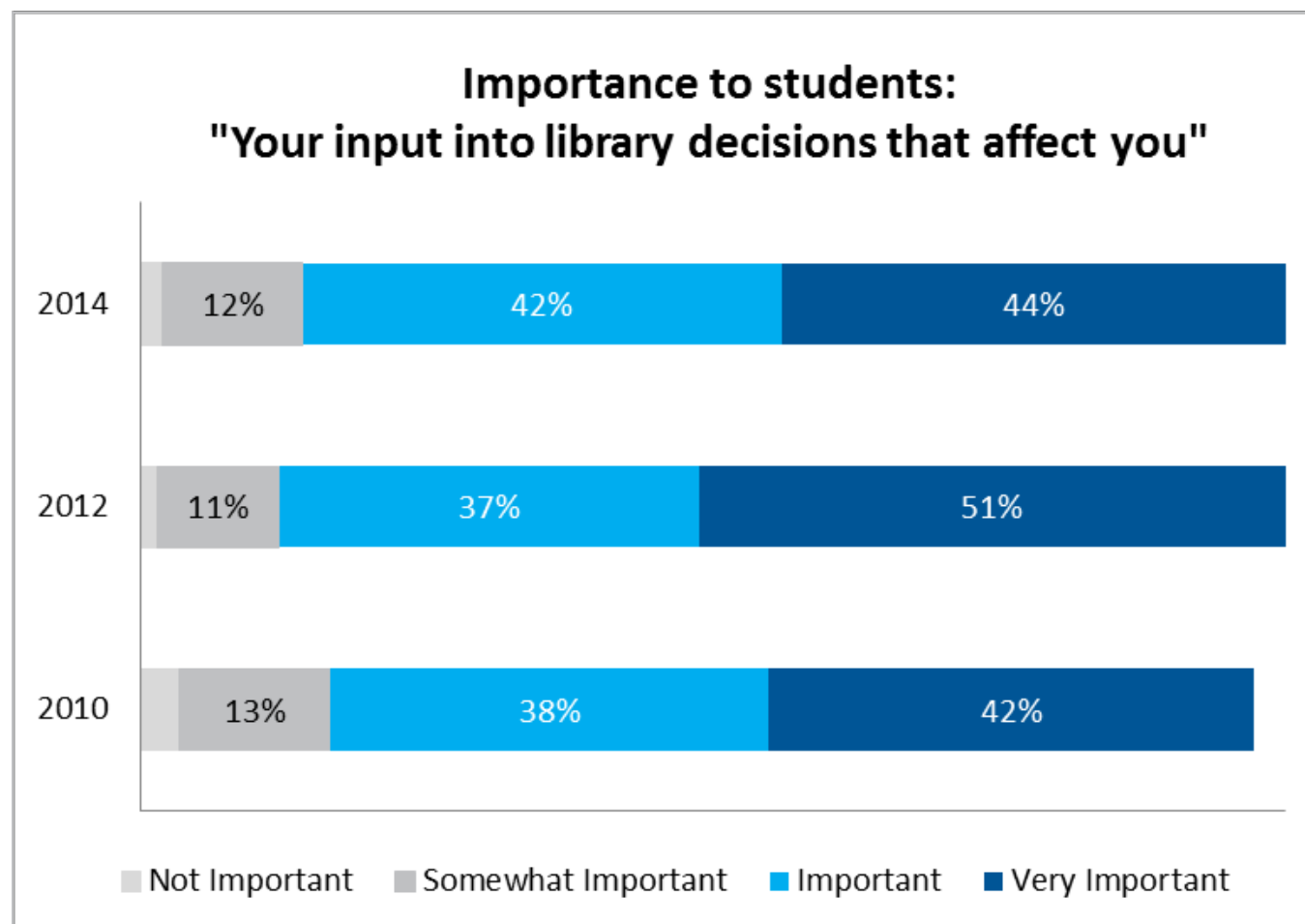


Figure 1. Responses to a question on Bryn Mawr College MISO Student surveys from 2010-2014

feedback to inform a proposed redesign of the first floor of Canaday Library, we looked at related case studies (Foster & Gibbons, 2005; Foster, Hartel, Lundh, & Sonnenwald, 2012) and attended participatory design workshops sponsored by the Council on Library and Information Resources (CLIR). Following Foster & Gibbons (2007), we conducted a study of our space's primary users—students—to let their voices and perspectives not only inform, but drive the design.



Figure 2. Scenes from Canaday Library's first floor. Clockwise from top-left: 2a, b, c, d

Qualitative Data

Our "in vivo" coding of the nineteen video interviews and the brainstorming board comments allowed us to establish 30 "pattern codes" (Miles, Huberman, & Saldaña, 2014, pp. 86-93). We found it compelling that many of our most frequently mentioned items were also the most universally mentioned in student interviews, and that the same items were among the most common Brainstorming Board comments.

Top Submitted Brainstorming Comments	Number of Comments
More natural lighting & windows	50
More tables*	39
More comfortable furniture	38
More exhibit space	31
More quiet space & individual study nooks*	31
Brighter colors & more modern interior*	30
More group study rooms	24
Better bathrooms	19
More power outlets	15
Better water quality	12

Videos: Most Frequently Mentioned Codes	Times Mentioned (across interviewees)
More natural lighting	51
Bigger tables	40
Better separation of quiet and noisy space	39
More comfy furniture	38
Importance of public computers and labs	32
More group study rooms	30
More variety in functional space and types of seating	30
Importance of printers and printer access	30
More quiet space	27
More space where talking is allowed	23

Videos: Most Universally Mentioned Codes	Interviewees Who Mentioned Code
Importance of public computers and labs	18
Importance of printers and printer access	17
More natural lighting	15
Better separation of quiet and noisy space	15
More comfy furniture	15
Bigger tables	13
More space where talking is allowed	13
More quiet space	12
More individual study nooks	12
More variety in functional space and types of seating	11

*Brainstorming board comments were coded slightly differently from the video interviews. Codes that did not exactly map, or that encompassed multiple interview codes, are marked with an *.

Mixed Methodology & Participatory Design

Space Usage Observations

We gathered quantitative data on how Canaday Library was being used during the study period (~six weeks in Spring 2012) through regular observations. Staff members counted the number of people on each floor several times a day, for a total of 28 observation sessions. We counted how many patrons were using different portions of the library, and how they were using them. We also noted patterns of computer usage and engagement in group work.

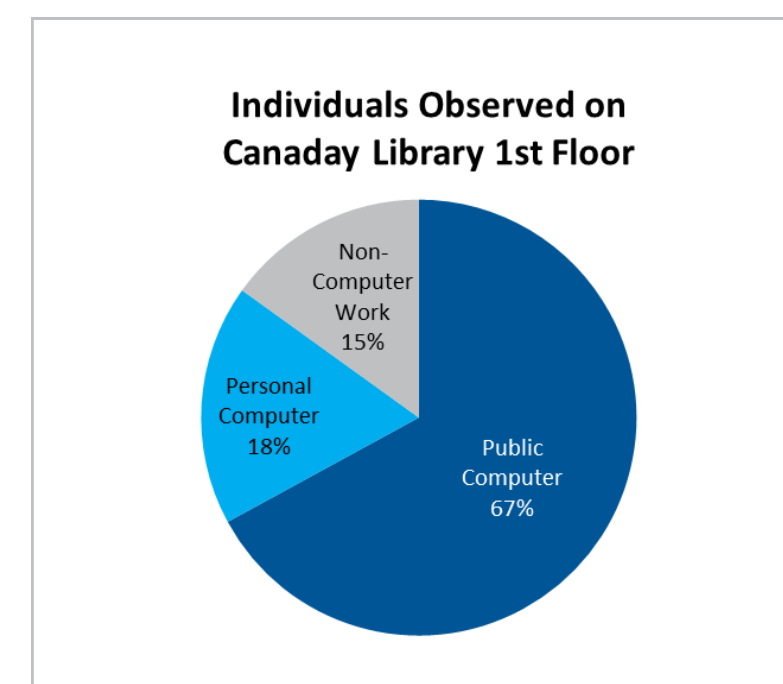


Figure 3. Average proportions of students doing computer and non-computer work on the first floor of Canaday during the study period

Student Photo Interviews

Seven students were given a list of 10 – 20 places or things to photograph in order to illustrate their typical work habits. Then, they were asked to arrange the photos a simple digital presentation. In interviews, students spent 30 minutes with a project staff member describing each picture they had taken.

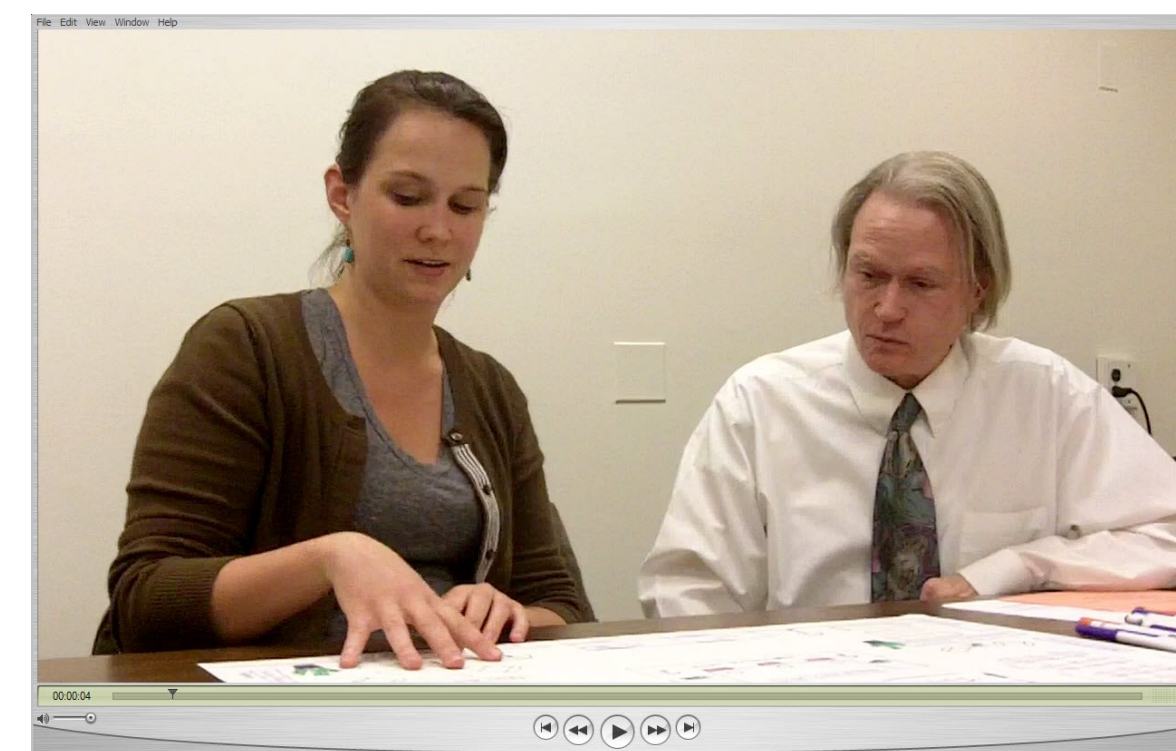


Figure 5. A student being interviewed by a project staff member

Student Design Workshops

We asked 12 students to spend 30 minutes illustrating their ideas for Canaday's first floor. Staff members did not help or observe the students during this time. The students then described their drawing to a staff member, who asked clarifying questions. The videoed conversation was later coded and analyzed using NVivo qualitative data analysis software.

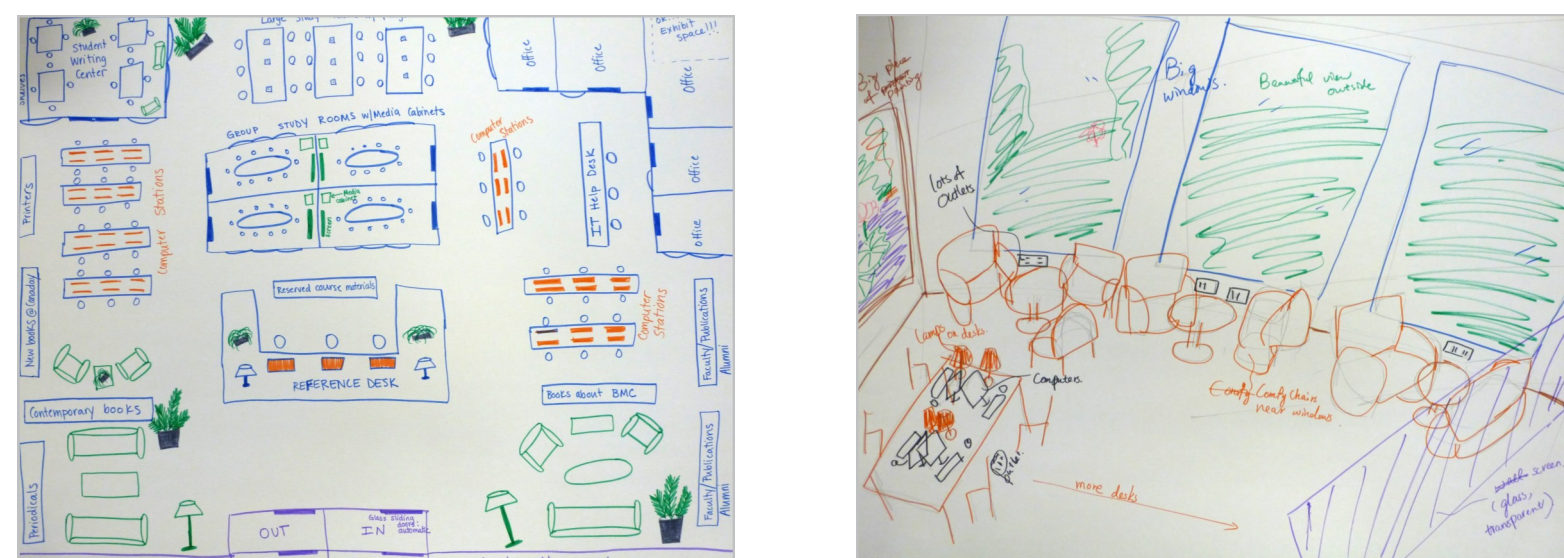


Figure 4a, b. Student-designed floor plans for a renovated Canaday Library

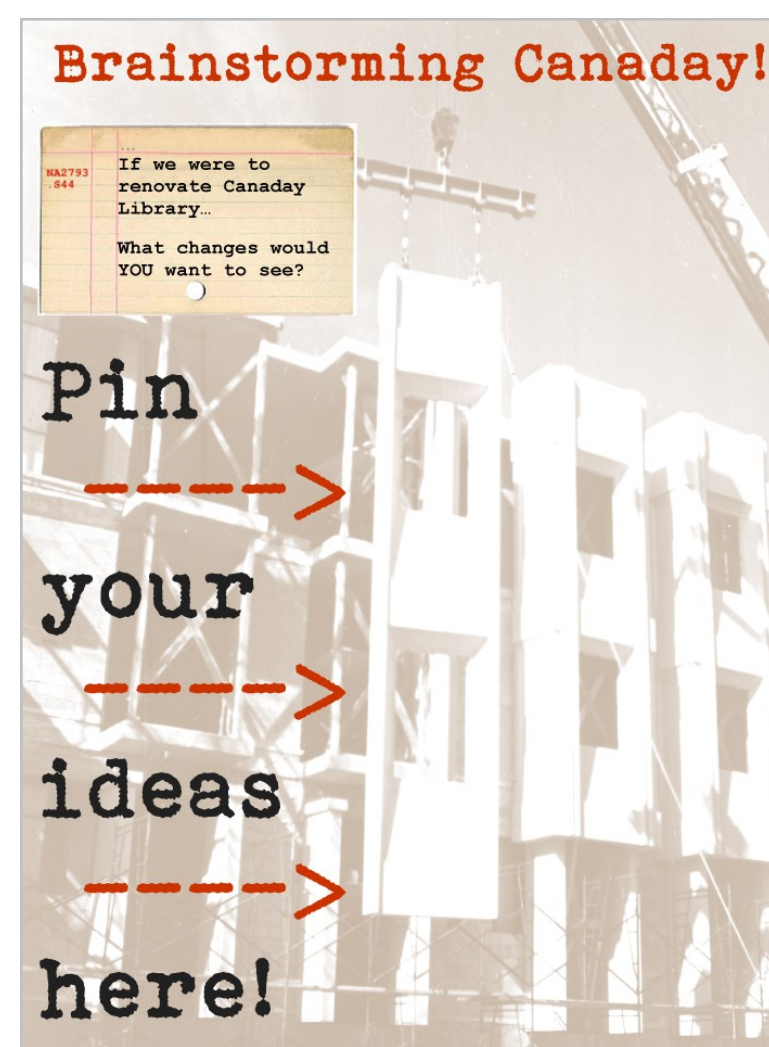


Figure 6. The Public Brainstorming Board in Canaday Library

Public Brainstorming Board

We mounted a public comment board in order to gather spontaneous comments from Canaday Library patrons. The board was situated in a high traffic area near the entrance and service desks in Canaday (Figure 2d). Over the study period, we collected 380 comment cards, with approximately 60 unique comments. The comment cards were then transcribed and coded for qualitative analysis.

Importance of Library Space

In our biennial customer service survey, Bryn Mawr students consistently rank "library as space" variables as "Important" or "Very Important", while their satisfaction levels range from "Somewhat Satisfied" to "Satisfied" (MISO 2010, 2012, 2014; Figure 7). The results of this current study may be able to help us bridge this satisfaction gap in several areas:

- **Atmosphere:** Students want to work in a comfortable and aesthetically pleasing library. They used words like: "warm", "welcoming", "cozy", "relaxing", "restoring", and "modern" to describe their ideal space.
- **Functional space:** Students asked for both more quiet spaces and more talking spaces, and for better separation between functional spaces.
- **Technology:** Participants noted the importance of the public printers and computers on Canaday's first floor, which constitute Bryn Mawr's main campus computer lab (Figure 2c). Students also requested more power outlets and big work tables to plug in and spread out with their devices.

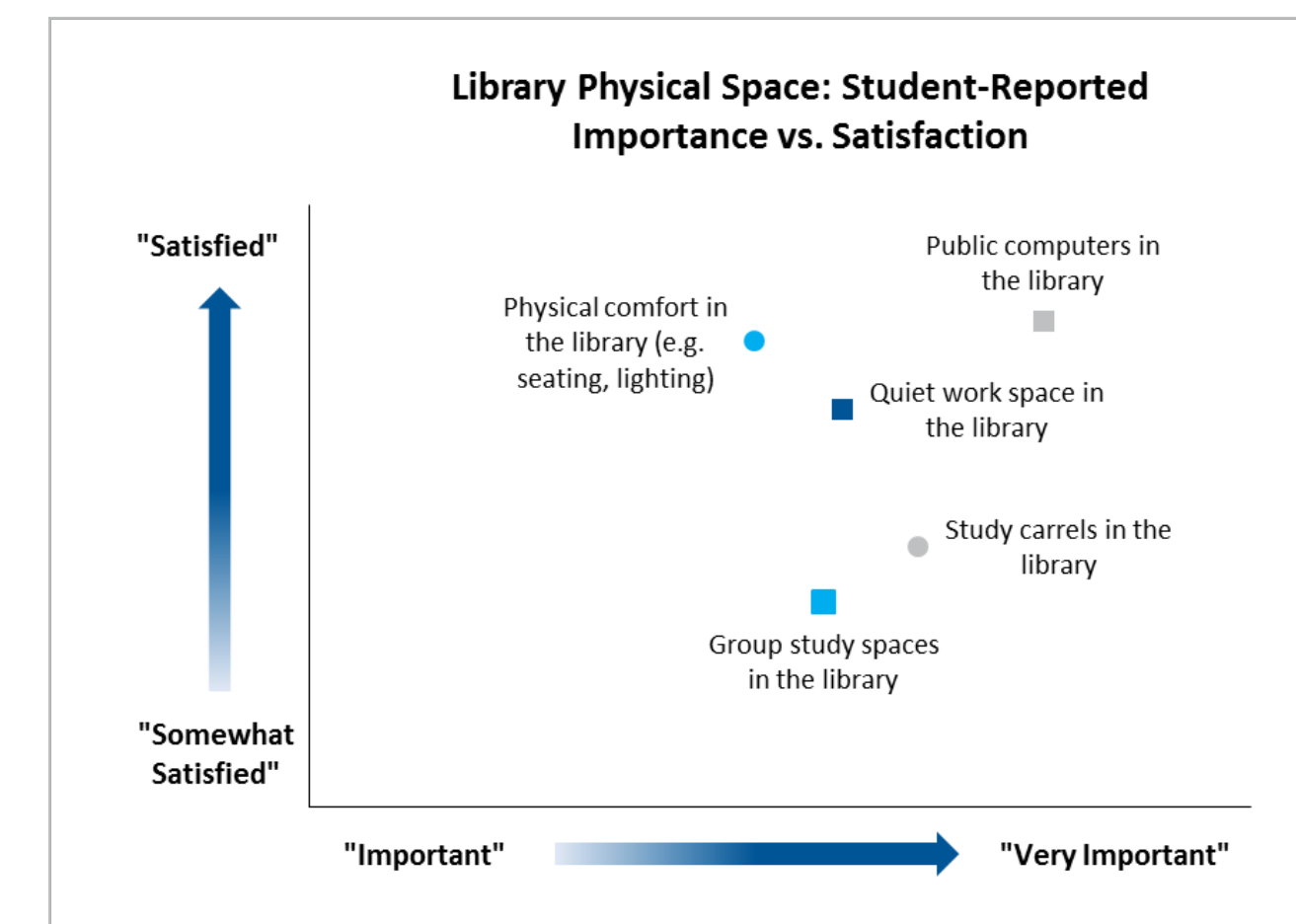


Figure 7. Cross-plot of "Importance" and "Satisfaction" responses to library physical space questions from Bryn Mawr College's 2012 MISO Student survey

Rhys Carpenter Library

Many students mentioned Carpenter, our library for Art, Archaeology and Classical Studies, as an example of a library space in which they enjoy working. Completed in 1997, Carpenter has a modern feel with stone and glass architecture, earth-tone colors and a lot of natural light. It also has multiple types of quiet spaces and a variety of functional spaces, including exhibits and art integrated into the rest of the library.



Figure 8. A reading space in Carpenter Library

Power of Participatory Design & a Mixed Methodology

Most of the findings of this study do not come as a surprise to those of us who work at Canaday Library. However, we were intrigued by the remarkable consistency of the most common concerns, whether they were expressed via floor design drawings, photo diaries, brainstorming board comments, or, passively, via our space usage observations. Seeing similar results from multiple data collection methods has enabled us to use this data with confidence to inform capital improvements to Canaday Library.

Selected References

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