

Participatory Design in Academic Libraries

Methods, Findings, and Implementations

With introduction by Nancy Fried Foster

October 2012



COUNCIL ON LIBRARY AND INFORMATION RESOURCES

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About Nancy Fried Foster

Nancy Fried Foster is director of anthropological research at the University of Rochester's River Campus Libraries, where she facilitates participatory design of software and spaces. Dr. Foster supports similar projects at other U.S. and international universities and teaches workshops on participatory design for the Council on Library and Information Resources and the American International Consortium of Academic Libraries. She co-edited the 2007 book, *Studying Students: The Undergraduate Research Project at the University of Rochester*.

CLIR Seminar on Issues of Participatory Design in Academic Libraries

May 22-24, 2012

University of Maryland

Tuesday, May 22

6-8 pm Reception

Wednesday, May 23, McKeldin Library Special Events Room

9:00 am Breakfast and introductions

9:30 am Project reports and Q&A

Ellen Freeman and Marilyn Pukkila (Colby College): Faculty Research and Teaching Practices

Marcy Strong and Judi Briden (University of Rochester): Learning the Ropes

Travis Smith and Olivia Reinauer (University of Richmond): Collaborating with an Undergraduate Anthropology Course on a Library Space/Use Study

10:30 am BREAK

10:50 am Participatory design refresher

11:20 am Methods and Q&A

Patricia Kosco Cossard (University of Maryland): "On-the-Spot" Interviews

Susanna Cowan (University of Connecticut): Work-space Monologues: Method and Issues

Suzanne Chapman (University of Michigan): Photo Booth: A "Budget" Method

12:20 pm LUNCH

1:30 pm Gaining support from your dean and colleagues

2:15 pm Project reports and Q&A

Sania Battalova (American University of Central Asia): Participatory Design at the American University of Central Asia

Glenda Morgan (University of Illinois at Urbana-Champaign): Data Analysis: Process and Challenges

Laura Farwell Blake and Cheryl LaGuardia (Harvard University): Participatory Design of Larsen Room, Lamont Library

- 3:15 pm BREAK
- 3:35 pm From concept to implementation
Presentation: Debra Kolah (Rice University); facilitated discussion
- 4:15 pm First day wrap-up

Thursday, May 24, McKeldin Library Special Events Room

- 9:00 am Breakfast and reflection
- 9:45 am Project reports and Q&A
Sheree Fu (Claremont Colleges): Design your Ideal Study Space
Eric Pumroy and Melissa Cresswell (Bryn Mawr College): Participatory Design of a Library Renovation
Jane Williams (University of Maryland): Re-programming McKeldin Library
- 10:45 am Break
- 11:05 am Participatory design challenges
- 11:30 am Sandra Vicchio (Sandra Vicchio Associates) and Nick Tomaszewski (University of Maryland): The Architects' View of User-centered Design
- 12:00 pm Wrap up
- 12:30 pm LUNCH

Introduction

NANCY FRIED FOSTER

The papers in this volume, written by librarians and IT professionals from twelve colleges and universities, report on user research and participatory design projects that excite, delight, frustrate, enlighten, and sometimes make us wince in recognition. All of the authors of these papers attended workshops sponsored by the Council on Library and Information Resources (CLIR) and then dove fearlessly into projects with as little as two days of training. Some of the projects were large and others were very small. Some projects were well supported; others were barely supported at all. When they completed their projects, the authors found that some of their recommendations were implemented while others were utterly ignored. And through it all they persisted because they believe that participatory design supports user-centered libraries.

All of the authors wanted to learn how their students or faculty members do their academic work. Their projects ranged across research and teaching, paper and electronic resources, and spaces and websites, but all kept the people who use libraries and information technologies at the center of the inquiry. Their reports share new methods of approaching enduring questions and offer a number of useful and interesting findings. They make a good case for participatory design of academic libraries.

Participatory Design and User Research

Participatory design is an approach to building spaces, services, and tools where the people who will use those things participate centrally in coming up with concepts and then designing the actual products. While it is easy to engage traditional specialists – such as architects and software engineers – in the design and development of spaces and technologies, it is not so easy nor so obvious how to

engage lay people who will use what is built. In the case of academic libraries, the challenge is to create a way for faculty members, university staff, undergraduates, and graduate students to contribute their specialized knowledge to the process. Specialist knowledge in this case refers mainly to information about the work they do – how they do it when it goes well, what they do when they hit a snag, what they would do if only they had precisely the spaces and tools that would best support them. With that kind of information, architects and software developers are in a good position to build effectively and support academic work.

Participatory design activities make it possible for faculty and staff, undergraduates and graduate students to communicate with such specialists as graphic artists and software developers, architects, and builders. Since all of these people can be said to speak different languages and to conceive of what they are building in different ways, someone needs to facilitate communication among them so that the people with the professional expertise to build spaces, design services, or make a piece of software are able to understand the work practices and requirements of the people who will use those things in order to give them products that will support their work. The methods that we use to facilitate this kind of communication include various interviews, workshops, and activities that involve such artifacts as maps, photographs and drawings. We have taught a variety of activities in the workshops that the authors of these papers have attended. These include retrospective interviews, photo interviews, map interviews, design workshops, and more. In all of these different kinds of activities, we gather information about the work practices of faculty members, students, library staff, and anyone who will use a service, tool, or space. In all of these activities, we understand students, faculty members, and staff members to be workers, and our objective is to understand what kind of work they need to do and how they want to do it. The facilitator, who is a social scientist, can then help the experts who know how to build spaces, services, and technology take that information about work practices and interpret it in order to come up with the requirements and specifications for whatever is being built.

The idea for the seminar came from participants in previous CLIR workshops who wanted an opportunity to share experiences of conducting user research and participatory design projects. We invited all previous workshop participants through online surveys to tell us what they hoped to get out of the seminar, when they thought we should schedule it, how long it should last, and so on. We also asked who would be willing to give a presentation. Based on what we learned, the topics that people wanted to cover, and who wanted to give a presentation, we organized a program (pages v and vi) around sets of papers on related themes, providing additional refresher sessions and some new workshop material.

The following papers convey methods, findings, and implementations while speaking to what it really takes to introduce participatory design to people who are used to working another way. They

warn of pitfalls, provide advice, and incite perseverance. It is our hope that reading this volume will encourage more people to consider the advantages of including a wide range of “experts” in designing and developing spaces, services, and technologies so that we may all do our library-based work to better effect.

Acknowledgment

The seminar was made possible through the generosity of many individuals and organizations. We thank especially The Andrew W. Mellon Foundation and CLIR sponsoring institutions for their support. We are grateful to the Institute for Museum and Library Services for supporting participants from small to mid-sized private colleges and universities through the “Leadership through New Communities of Knowledge” grant, and for its support of the AMICAL projects. We thank the University of Maryland for hosting the seminar. We thank the hosts of all of the CLIR, CIC, and AMICAL workshops throughout the US and across the globe. And we thank the participants, who have listened, learned, practiced and made participatory design their own, and are now teaching each other and taking user-centered libraries to new heights.

Faculty in the Mist: Ethnographic Study of Faculty Research Practices

ELLEN L. FREEMAN, Instructional Technologist, Colby College

MARILYN R. PUKKILA, Head of Instructional Services, Colby College

Introduction

Our project, “Faculty Research and Teaching Practices,” was designed to discover how our faculty members use (or don’t use) services offered by the Libraries and by Academic Information Technology Services (ITS) in the course of their teaching and research. We undertook this project because we felt we needed a better understanding of the research, teaching, and technology needs of Colby faculty.

Colby College is a private, independent, four-year liberal arts institution located in Waterville, Maine, with 1,815 students and 172 full-time and 41 part-time faculty members.

Our interviews with Colby faculty were videotaped in their offices. We used a set protocol of six open-ended questions that asked respondents to describe their research and teaching methods. These questions were designed to allow the faculty member to address the issues that concerned them most and to uncover information that we would never have thought to ask.

Getting Started

We began the project in summer 2010. Marilyn answered 13 questions as part of the Institutional Review Board’s (IRB’s) protocol for anthropological research with human subjects. Once we had the IRB’s approval we were ready to select our faculty. We were hoping to conduct ten videotaped interviews with faculty and ten co-viewing sessions¹ with our colleagues in the Libraries and in Academic ITS over the course of a year.

¹ “co-viewing” refers to viewing sessions involving others in the department who were not part of the project.

To select our faculty, we reviewed the list of all current faculty who were on campus for academic the year 2010-11. From that list, we identified those persons that we thought would enjoy working with us on this type of project; usually they were people who had already worked with us on library and/or Academic ITS matters. In the end, we emailed 40 faculty members, asking if they were interested in participating, and received responses from most of them regardless of their interest. We scheduled ten interviews in the time frame we had planned. As it turned out, we couldn't have chosen our interviewees better if we had made all the selections ourselves. We had an even mix of professors from disciplines across the board, including art, science and technology in society, anthropology, psychology, East Asian studies, computer science, biology, geology, Latin American studies, and French.

Equipment

We decided to obtain our own equipment for our project, rather than rent it from campus sources. On the advice of Media Resources at Colby, the Libraries purchased a Sony DCR digital video camera recorder and a Sony writer that transferred the interviews directly from the video camera to a DVD. We also purchased a tripod, but after the first few interviews, we took the advice of a more experienced videographer and had the library purchase a monopod, which combines a steady picture with greater flexibility of movement (particularly useful for the tours of the interviewees' offices).

Interview Process

Prior to each interview, Ellen sent out our consent form, and in most cases we received signed copies back from the faculty before the interview. During the interview, we introduced ourselves and the project, thanked the faculty member for their time and willingness to participate, and asked if they had questions about the consent form. We then asked the set of six questions, paying close attention to time, since we had promised a 45-minute interview. We traded off the two tasks of asking the questions and taping the interview, though whoever was working the camera always felt free to chime in with a question or a prompt. After the interview, Marilyn converted the files to DVD format, which allowed easy co-viewing in a variety of set-ups, though most sessions were held in the Miller Library conference room. Ellen also worked with the DVDs in iMovie, pulling out both audio and video clips.

We started scheduling co-viewing sessions with members of the Libraries at Colby and Academic ITS while we were still conducting interviews. These sessions ensured as wide an interpretation as possible of the information shared with us by faculty in the interviews. From these viewings we planned various revisions of our services and created new services as a direct result of the faculty input from the interviews. We also obtained a richer understanding of faculty

and faculty culture at Colby that has since improved and solidified our work with faculty on campus.

Timeline and Workload

So, how much time have we spent on our study? We attended the CLIR-sponsored Faculty Methods Training in April 2010, in Seattle, and another for student research methods in October 2010, in Pasadena. It was at these workshops, which we attended together, that we laid the groundwork for our methods and began defining our project. Our intention was to complete a project in one year, and we just managed to do so.

Dividing the responsibility happened naturally for us. Marilyn did most of the communication with and work for the IRB. She also researched and purchased the equipment for the interviews. Ellen scheduled our meetings with faculty as well as the co-viewing sessions, using Google calendar. As mentioned above, we took turns interviewing and videotaping, and we both attended all ten co-viewing sessions.

After obtaining IRB approval in the summer, we drafted an invitation and emailed faculty on October 6, 2010. Our first faculty interview was on October 29, 2010, and our last interview was on April 14, 2011. Our first co-viewing session with our peers in Academic ITS and the Colby Libraries was on December 10, 2010, and the last was on May 12, 2011.

Once the project was complete, we shared our observations and the changes we made as a result with the ten participating faculty by email. Most of them responded, expressing pleasure with the process and gratitude for our work.

Since then, we have presented at a joint webinar for ISIS (Information Services Instruction Support) in April 2012 with Mt. Holyoke College, and at the Maine Academic Libraries Day, hosted at Colby in early June. Not surprisingly, we are already planning our next ethnographic research study.

Faculty Response and Co-Viewing Sessions

We were pleased by how well received we were by the faculty who participated in our study. They were glad to be asked to reflect on their methods of researching and teaching, and they, themselves, gained new insights by spending time with us. The welcome that both we and our project received is exemplified by the following comment from one of the faculty participants: "I really appreciate this [interview] because I never really explicitly thought about what I do when I'm working and how I set up my office and there's something really valuable about being given a chance to reflect on that." Most of them also asked to see results of our study, which we compiled after its completion and sent to them by email.

Our co-viewing sessions were lengthy and initiated good conversation, regardless of the number of participants. Our library and

Academic ITS peers in attendance were grateful for the project and appreciated the chance to discuss how we are currently supporting faculty, reviewing what works and what doesn't, and making changes.

One of the best parts of this project has been engaging the dual approaches and perspectives of librarians and technologists. Having both involved deepened the project and directed its course. The cross-departmental collaboration that had already existed to some extent expanded as a result of the co-viewing sessions. In addition, faculty are now more likely to view those who work in Academic ITS and the Libraries as professionals on campus who are doing research and who care about how to help them in their own research and teaching.

Outcomes

As a result of information gathered from the joint project, there were multiple ways in which Academic ITS and the Libraries at Colby changed their protocols and generated ideas for new approaches to faculty services.

Here are some of the changes in the Libraries:

- We decided to allow the purchase of expensive, highly specialized material to meet one faculty member's need (rather than expecting high use in exchange for high price; Feb 2011)
- We decided to deliver interlibrary loan materials to faculty offices (previously, we had only delivered Colby materials; March 2011)
- We re-emphasized our dissertation access through the ProQuest database (March 2011)

The following changes were made in Academic ITS:

- We have a stronger commitment to collaborating with the Colby Libraries, which supports our joint service to faculty.
- We have defined further how faculty use Moodle and their need for prompt, continued support and for one-on-one training.
- We recognize a need to support and train faculty in understanding data backup procedures on campus.
- We recognize the value of building relationships with faculty to enhance support efforts.
- Since faculty members often work individually, not as a group, we realize that supporting educational technologies one-on-one is often preferable to group training sessions.
- We are in the process of developing an online, collective resource for faculty of library and technology tools available at Colby.
- We have begun a focused effort to work with faculty and students in a classroom environment on class, group, or individual student technology projects.

General Observations

In addition to the changes in services and approach, we gained a number of insights into faculty culture.

- Faculty rarely work on only one project at a time; they are usually finishing up one project, in the midst of a second, and starting to plan a third.
- Faculty often use student research assistants to do preliminary/ongoing literature reviews, construct websites, and build databases and/or datasets.
- Faculty construct individual databases (digital and paper), sometimes jointly with colleagues and/or students, but all are highly specialized.
- Faculty rarely think of themselves as “well-organized” or “tidy.”
- Faculty cannot come up with a *technological* “magic solution” to an ongoing challenge in research or teaching; most respond by wanting a full-time research assistant.
- Faculty often integrate their research deeply into teaching, and their teaching experiences have an impact on their research.
- Faculty often use Google Scholar for literature reviews rather than the specialized databases of their own disciplines, though they usually want their students to know about those databases; this is true of interdisciplinary faculty more than science faculty.
- Faculty have two or three distinct working spaces: office, home, and sometimes a lab, library carrel, or other location.
- Faculty rarely start a search in Colby’s catalog or CBBCat (our shared catalog with Bates and Bowdoin).
- Faculty rarely mentioned any conference attendance, though that should not be taken to mean that they are NOT attending conferences; it just didn’t come up much in this context.
- Faculty were glad to be asked to reflect on their methods of working and teaching and gained new insights.

Lessons Learned

When thinking about big ideas and then comparing them to the daily needs of faculty, we learned mostly what we already knew and is basically common sense: when planning and providing the services that faculty need, don’t guess at what they want—JUST ASK THEM.

In hindsight, we wish we had pushed the IRB to allow us to ask for consent from faculty members to use interview material in video clips placed online. This would have been one of the itemized consents on the form, which a participant could have accepted or rejected. Such permission would make it much easier to use what we’ve learned at a conference or to build a website to publish research for a broader audience (and we’ve already received a request for such a site).

After the interviewing and co-viewing sessions, Ellen wanted to transcribe the audio from the interviews and do some text analysis, but there just wasn’t enough time for such detailed work.

Overall, we learned that ethnographic research has significant

advantages. We are aware of a strengthened relationship between ourselves and faculty on campus, as well as between the Libraries and Academic ITS. All those who participated in the study discovered a deeper layer of meaning through ethnographic methods that a quantitative crunching of data would not have offered.

Still, we wonder what questions we could ask of the data AFTER the interviews and co-viewing sessions are completed. We are also attracted to the idea of a continual, long-term project such as some of our AnthroLib colleagues are undertaking. In addition, we may want to return sometime to the co-viewing data we collected to see if it offers new insights upon review.

Whatever we choose to do, we know it will be ethnographic, and we are certain that it will open new doors, create new collaborations, attract new attention from others on our campus, and answer questions we never would have thought to ask. In the end, this can only make us better at our jobs and better researchers.

How Undergraduates Learn the Ropes: Looking at How Students Transition at the University of Rochester

MARCY STRONG, *Metadata Creation and Enrichment Librarian, University of Rochester*

JUDI BRIDEN, *Digital Librarian for Public Services; Brain and Cognitive Sciences Librarian, University of Rochester*

Background

The University of Rochester, River Campus Libraries (UR), investigated how to better reach students and help them adjust to life on campus and in the library. Using some ethnographically based methods, we interviewed stakeholders on campus and revisited some previously researched areas (Foster and Gibbons). One sub-team involved in this work was the “Learning the Ropes” team, which looked at several broad areas around transitioning to college and becoming an adult. Members of this team included Suzanne Bell, Vicki Burns, Nancy Foster, Kenn Harper, Mari Lenoe and Marcy Strong.

Methodology

For the study, we engaged students, staff, and faculty members in three research activities.

1. *Panel Interviews of Resident Advisors*

We conducted panel interviews with a total of 12 resident advisors (RAs). The panels were held on different days to accommodate the RAs’ schedules. Interviews were conducted by one team member, with others providing assistance. RAs were asked about obstacles freshmen encounter, ways to help them, and what contributes to successful or unsuccessful adjustment. We recorded and transcribed the interviews.

2. *Advisor Interviews*

We conducted one-on-one interviews with four pre-major advisors and four major advisors. Pre-major advisors are volunteers from across the campus, not necessarily faculty, who assist freshmen and sophomores who have not yet declared their majors. In this case, the pre-major advisors we interviewed were members

of the library staff. We also interviewed four major advisors: three professors and a university administrator. As their title indicates, major advisors work with students who have declared their major. Each advisor was asked for examples of students who were “clueless” and ones who had “figured college out.”

3. Student Photo Interviews

We conducted photo interviews with nine undergraduates—two each of freshmen, sophomores, juniors, and seniors, and one fifth-year undergraduate. We used two recruitment strategies. The first five students were recruited from a list of those who had volunteered to help the library with usability and research. We asked them to take photos that exemplified specific aspects of their lives on campus—for example, photos of two things about the university that used to be hard-to-impossible and now seem easy. The participants sent us the pictures electronically before the interview, and then team members interviewed each student.

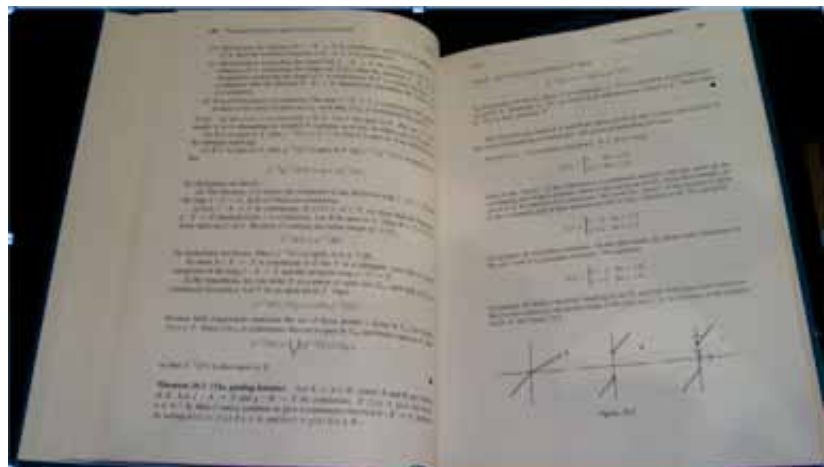
To gather the last four participants, we had a student assistant seek volunteers in the student union one evening. These four were interviewed immediately, without having taken photographs.

Findings

Based on analysis of the interviews and images, our findings include the following.

Academic maturity: Developing academic skills and focus

- **Having a passion:** A passion, or strong intellectual interest, is a good indicator of a student’s potential for academic success. Students who chose their major or course of study to please parents or to open doors to well-paying careers, rather than for intrinsic interest in the subject matter, often seemed to lack the motivation to sustain the level of effort and follow-through required by the rigorous workload in college.
- **Reading critically:** Both advisors and undergraduates emphasized the importance of being able to read, study, and integrate materials for class. Advisors reported that some students lacked

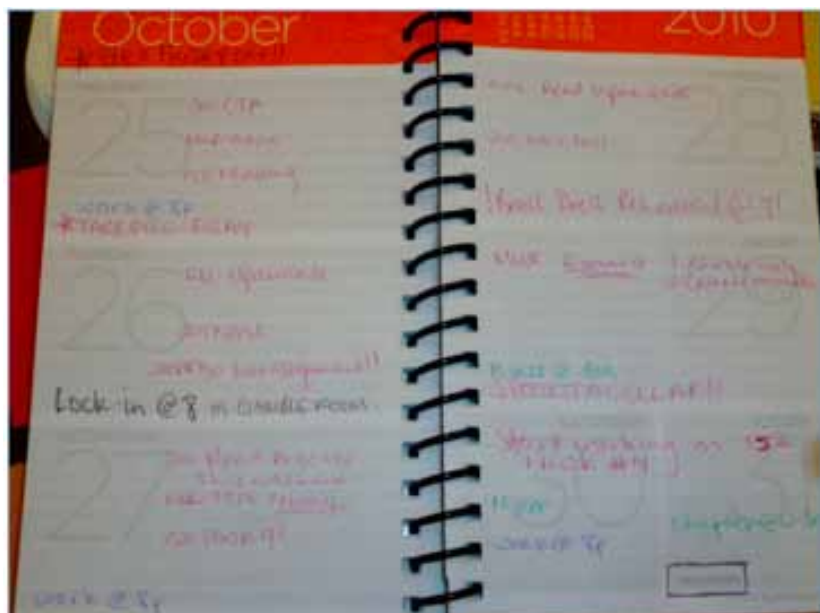


critical thinking skills and seemed more comfortable simply regurgitating what they learned rather than applying the material.

- **Working in a group:** Some students began working in peer groups for support in understanding course materials. One advisor, when noting that students need to develop an ability to solve problems, observed that “successful students often work together ... they have study groups informally or more formally and they just stick together and approach the materials together and help each other.” Working collaboratively often seemed to help students become better learners.
- **Learning to find academic resources:** The ability to find academic resources is another crucial skill for undergraduates. Students sometimes arrive with inhibitions that keep them from finding what they need. For example, some students will not approach a librarian to ask for help although this may be the simplest way forward. Other students may hesitate to go into the stacks because they find them intimidating or are put off by the building’s confusing layout.
- **Learning to get help:** In addition to the library, the university has a considerable infrastructure to help students with their academic lives and decision making. Students appear to know about and use services such as the Writing Center, Career Center, and university academic advisors. However, many students seem to feel a lack of long-term academic mentorship and are unsure of how it can be resolved. The advising procedures across academic departments are inconsistent and often do not seem to encourage a real relationship between the student and advisor.

Social maturity: Dealing with the campus and with college life

- **Time management:** Time management came up repeatedly in interviews with undergraduates. For many students, the critical



adjustment is from a high school environment, in which their schedules are designed for them, to a university environment in which they are responsible for planning and managing their own schedules. Regardless of what kind of calendar they use, students seem to realize that they need a plan to stay organized and balance their tasks.

- **Space management:** Students have to manage not only their time, but also their study space. Some students prefer to work in groups while studying, even if that means sitting at a table full of friends, working on individual tasks. Other students prefer to work alone and in quiet spaces where they won't be distracted. Regardless of how they found their study space or where they preferred to study, distinguishing between defined study space and time vs. social space and time seemed to be a major transition for becoming a more successful student.
- **Balancing social life:** While the students we spoke with seemed to take their academic work seriously, they also had recreational interests. Sports, fraternities and sororities, clubs, and part-time jobs all competed with class time and study time in their daily schedules. Students experiment until they find a balance of work and play that is sustainable.
- **Influence of role models:** As the first role models that freshmen encounter, RAs and other student leaders can greatly help incoming students develop good habits and adjust to academic life. One RA said, "being a presence on the hall ... is a big deal. Showing them—not just telling them what you do, but showing them what you do. Making an effort to go to the library and come back and show that you're having a social life and doing this, and exhibiting that balance." By organizing hall meetings and activities, RAs also introduce and encourage students to interact and build relationships with one another. This can often be a stepping stone to new interests, classes, and social activities.



Emotional maturity: Managing needs and discovering one's self

- **Recognize changing interests:** Nearly 40 percent of incoming freshmen at the UR indicate that they intend to apply to medical school; only about 5% actually will. As students take classes, form relationships with faculty and their peers, and get involved with clubs or other activities on campus, they often find their interests changing. The sooner a student understands where his or her true interests lie, the sooner he or she seems to transition into being a successful student. Academic advisors spoke about how they can almost see the students change physically when they find something they are passionate about, and that, as the advisor, they know that students have "got it."
- **Involvement of parents:** Part of the transformation of becoming a college student and young adult is the ability to recognize one's own interests, make one's own decisions, and stand up for them. However, a strong relationship between parents and students is

not necessarily a bad thing. One advisor noted that successful students “still had a strong connection with their parents, but they seem to have formed a sense of their own empowerment. So they were still very much in communication with the parents, but they knew that their decisions were theirs to make.”

- **Fear of faculty:** Academic advisors, RAs, and students spoke about students’ reluctance, even fear, of talking to their professors, especially when they were not doing well. Students often avoid speaking with faculty until they absolutely have to—when they are failing a class or feel hopelessly lost with the material. Once they make initial contact and discover that faculty are not as scary as they had feared, students may even begin to develop a relationship with the faculty member, and their academic experience seems to improve.

Physical maturity: Taking care of one’s physical and health needs

Managing the body’s needs is another area in which students need to mature to do well in college. Students must learn to feed themselves adequately and at regular intervals, to manage their schedules so that they get enough sleep, and to deal with minor and major illness when they are on their own. For some students, the management of chronic conditions (such as diabetes or depression) is such a challenge that their academic work may be affected.

Future Directions: How the Library Can be More Supportive

We came up with several ideas the library may consider to address issues within each area of maturity.

Academic...

- Put more subject librarians in classrooms to encourage mentoring.
- Implement emerging technologies like mobile computing and visual teleconferencing to encourage student/librarian interaction during evenings and weekends, or collaborate with other libraries to provide extended reference coverage.
- Highlight the library as a place of scholarship: sponsor talks by professors, display the work of visiting researchers, and host events where students can meet these scholars.
- Provide more library spaces that support spreading out and sticking around.

Social...

- Develop relationships with RAs to better connect undergrads with the library.
- Create reasons for visiting the library: since students often seem to find the library by accident, we need to create more opportunities for this accident to occur.
- Share stories of students who “learned the ropes.”
- Create rewards for students who take the first step early in the

semester to ask for help. These encounters could stick in their heads and encourage them to approach us for more substantial, research-based questions.

Emotional...

- Sponsor casual get-togethers to help students talk to faculty members.
- Educate staff about students' apprehensions.

Physical...

- Provide and publicize different kinds of spaces for students who need special accommodations.

Works Cited

Foster, Nancy Fried, and Susan Gibbons. 2007. *Studying Students: The Undergraduate Research Project at the University of Rochester*. Chicago: Association of College and Research Libraries.

Working With an Undergraduate Ethnographic Field Methods Class (Or, the Circus Comes to Town)

OLIVIA REINAUER, Social Sciences Librarian, Boatwright Library, University of Richmond

TRAVIS SMITH, Stacks, Building, and Interlibrary Loan Supervisor, Boatwright Library, University of Richmond

Foundations

Boatwright Library has a strong history of assessment and data collection, and has conducted numerous surveys and focus groups over the years. Since roughly 2007, steps have been taken to expand our assessment program. The library's first student advisory committee was formed to provide student feedback and suggestions. The head of outreach and instruction services took on assessment as a specific responsibility and also formed an assessment committee. Interviews, observations, and other qualitative methods were added to our assessment toolbox after Boatwright Library employees, including Olivia Reinauer and Travis Smith, began attending CLIR workshops on ethnographic methods. Most recently in 2011, a library ethnographic team was formed as a branch of the assessment committee. At present, the ethnographic team is composed of the two authors, plus the head of Parsons Music Library, Dr. Linda Fairtile.

Getting the Act Together

The ethnographic team began discussing possible projects, including ways to involve our anthropology department. As library liaison to the department, Olivia asked Prof. Jan French if she had any students who would be interested in working on a library project. As it turned out, Dr. French had an independent study student for the spring 2011 semester who was looking for a research project, so the student spent the semester conducting interviews and focus groups. She presented her findings to the library staff at the end of the semester.

Based on the success of the independent study experience, Dr. French offered to make library ethnography the focus of her

Anthropology 211 Ethnographic Methods course for Fall 2011. The eight students in the course collaborated with staff from Boatwright Library and Parsons Music Library to study the use of library spaces and resources. Around this time, we were awarded \$3 million to be spent during that same fiscal year on a renovation of the space, which added importance to the students' study.

Three-Ring Circus

Members of the ethnographic team met with Dr. French to help her plan the course and to suggest readings on library anthropology. At the start of the semester, the class visited the library to get an "insider's tour" of the areas they would be studying and were given floor plans of the library for use in mapping.

Each student chose an area of Boatwright Library or Parsons Music Library to study, and was given an iPad through our Center for Teaching, Learning and Technology's Mobile Classroom Initiative. They used the iPads to photograph and map spaces, take notes in the field, and record interviews and student focus groups. The library's ethnographic team assisted with recruitment and advertising for focus groups, and also provided funds for incentives and snacks. Members of the ethnographic team were given access to the course Blackboard site, so we could view student projects and data throughout the semester.

Catching a Glimpse

As their final project, the ANTH 211 students presented their findings to the library staff and other campus stakeholders. In general, their results mirrored our existing data and observations. For instance, they found that students enjoy having space to spread out; comfortable, well-lit surroundings; and areas that allow for privacy and focus, both for group work and individual study. They voiced concerns about printing and other technological issues, as well as a desire for more of what the library already offers—e.g., study rooms, computers, study carrels, and electrical outlets. One student announced that the two biggest problems in the library were restrooms (which were outdated and often located in quiet areas) and the lack of space in the coffee shop (which, while not technically within the library's purview, is located in the foyer of the library building).

Some of the more surprising results centered around social groupings and cues in the library. The students described the first floor collaborative area as a place for the "awkward time" between classes, and as a place where international students hang out. On the other hand, the quiet study on the first basement level was seen as a place for the sororities to study. It was clear that most students using the library had certain areas in which they felt most comfortable.

Send in the Clowns?

Working with undergraduate students had both benefits and drawbacks. Overall, our experience was positive. The students were invested and reasonably hard-working, since this was a graded project. And of course they were providing us with free labor! In addition, allowing student library users to be observed and interviewed by their peers seemed to lead to greater comfort, honesty, and authenticity in their responses and behaviors. Finally, library staff, external staff, and administrators showed great interest in attending the students' final presentation and in hearing things "from the horse's mouth."

One of the primary challenges was the difficulty of managing a group of busy students. In our debriefing meeting at the end of the course, Dr. French reported that it was stressful coordinating the students and ensuring that they delivered a quality product to the library staff. And as can be imagined, the students were not always as reliable as professional staff. For instance, the student assigned to Parsons Music Library withdrew from the course halfway through the semester, leaving us with some holes to fill. A second difficulty was the steepness of the learning curve for the students. Aside from being undergraduates, the students were not all anthropology majors. They were not able to code and process their findings in an advanced way, and it was difficult for Dr. French to make time to teach the theory and foundations of ethnographic research while still leaving the students ample time to conduct their studies.

Overall though, the experience of working with undergraduates was worthwhile, both for the library staff and for the students. We were able to see the library through their lens, and they had practical, hands-on experience using ethnographic methods and presenting to a group of staff and faculty.

Challenges

Beyond the challenges of working with undergraduate students, the ethnographic team has encountered some additional obstacles. Until we are able to establish a dedicated budget line for assessment or ethnographic research, we must hunt for funds from existing sources, and we are not always able to offer highly desirable incentives to the student research participants. It would also be helpful to have our own equipment for recording focus groups and interviews, instead of having to borrow cameras and recorders for each study. Finding ways to solicit buy-in from colleagues and administrators, and ensuring that findings are used in decision making, are additional challenges, as is sharing qualitative results, since this type of data does not necessarily fit into a graph or spreadsheet. It is also difficult to provide deliverables to a student audience that turns over every four years. Change does not always happen quickly! And finally, there is the challenge of recruiting participants from a pool of over-scheduled students, acquiring cash incentives for them, and finding the time and expertise to collate the data.

Successes and Plans

Despite the challenges, Boatwright Library has had great success using ethnographic methods. Being involved in these studies has strengthened our culture of assessment and added depth to the data that we collect in other ways. We have been pleased to see that data gathered from various sources shows agreement and consistency. These studies and projects have also created opportunities for collaboration that have included our student advisory committee, anthropology undergraduates, and anthropology faculty. Perhaps most importantly, the findings from our studies have contributed directly to our current building renovations and to other service and resource decisions, thereby creating an even better library for our users.

In the future, we hope to conduct a post-renovation study to find out how students are using the new spaces in the library. While we may not involve an entire anthropology class, we have spoken to Dr. French about offering a library project as an option to individual students in her methods courses. We are also considering future collaborations with other academic departments, such as sociology or marketing. In addition, we would like to delve deeper into some of the questions raised in the students' study, including student behaviors and perspectives at our information/service desk. And finally, we are interested in involving other library staff in further studies of student life and habits, such as photo and mapping interviews. We look forward to the next project and to continuing to learn from our colleagues at other libraries and academic institutions.

On-the-Spot Interviewing: Quick and Easy Tool for Collecting User Data

PATRICIA KOSCO COSSARD, Architecture, Planning and Preservation Librarian, University of Maryland

Introduction

The On-the-Spot Interview (OSI) tool was part of a toolkit developed by Nancy Foster and used by the University of Maryland to understand the use and future needs of its main library. The primary target population was undergraduates, but the tool may be used for a variety of groups. Collecting data is easy, takes less than ten minutes per subject, and can be done by a small group of interviewers. The main requirement is that the interviewers be outgoing and willing to engage subjects as they pass by.

Methodological Overview

Four librarians from the Libraries' Participatory Design Group identified themselves as the OSI team to administer this tool. Since there was going to be direct contact with the undergraduate student population, at least one member of the team had to have Institutional Research Board (IRB) certification to administer the consent form and collect information. In our case, there were three. The tool requires recruitment of interviewees, screening for required demographic qualification, obtaining consent required by IRB, and administering the interview. We chose to split into two pairs of interviewers: one to recruit, screen, and obtain consent; and the other to interview the subject. The recruiter had \$5 copy cards to offer as an incentive to participate. However, our team found that UMD undergraduates were very willing to give input, and we found little need to provide the added incentive of the copy card.

The OSI tool is designed to help us collect data on where undergraduate students have recently done their academic work and why they chose those spaces. The survey instrument asks three questions:

When and where did you last...

... study for an exam?

... work on a class project or lab?

... work on a full-blown research paper?

Date, time of day, duration, and reason for choice of location were also collected for each of these questions.

Collecting Data

Four campus locations were chosen: McKeldin Plaza (in front of the main library), Campus Recreation Center, Hornbake Plaza (in front of the second largest library on campus), and Stamp Student Union. Each site was chosen because it was a campus building that undergraduates are known to frequent, was a major thoroughfare, and was likely to be busy enough to recruit subjects without individuals feeling ambushed. Three afternoons were chosen: October 31, November 2, and November 4, 2011. We felt this was far enough into the semester that undergraduates would have had to complete the academic tasks being investigated in the interview. In all, 33 interviews were conducted.

Analyzing Data

Three of the four team members analyzed the data using the following steps.

1. Each team member analyzed 11 respondents, placing responses into categories as identified by the individual team member.
2. Together the team members jointly coded and deconstructed responses into the smallest idea possible.
3. Together team members interpreted and identified findings.

Findings

Most respondents reported studying for exams in increments of under four hours. More than three-quarters studied either in the afternoon or at night. They were most likely to study in the main library or in their bedrooms. Ambience and furnishings had the greatest influence in choosing where to study; respondents expressed a clear preference for quiet and the ability to focus.

When respondents worked on a project or a lab, they worked in increments of two hours or less. About half worked in one of the campus libraries, mostly in the Learning Commons in the main library. The other half was divided equally between working at home or in a classroom specially fitted for the exercise.

When working on a research paper, most subjects worked in increments of one to four hours. Sixty percent worked at home. Another 37 percent worked in a campus library, 80 percent of whom worked in the main library's Learning Commons.

Undergraduates have strong preferences in terms of their work

Selected Quotes: Exams

A place where I can be by myself—that's the main thing
Everybody else is studying. Like if you go to the gym and people are working out, it motivates you. The positive influence is getting pushed on me as well
My brain sets itself to study
I'm more likely to study in a place where I CAN and SHOULD study

Selected Quotes: Project/Lab

I can work on a project at home, but school is more appropriate. When I see all the students studying, it encourages me, motivates me (Learning Commons)
The place to meet and work is this place (Learning Commons)

Selected Quotes: Research Paper

It's easier to focus when you're by yourself
I feel like when I go to a library, I go there to do something. I need to see what I achieved. I cut my phone off and just go to work
McKeldin is too big, too many options
I prefer my room more than the library. I haven't really mastered the library yet. It's overwhelming. Too much space

environments. Overall, we found that they value access to computers and quiet surroundings to do their academic work. However, responses of “no distractions” did not necessarily mean “quiet.” Some students defined active spaces as distraction-free because their friends, who could distract them from doing work, were not there, whereas another student identified a messy room at home as a distraction. Other important factors included where they live and the ease of commuting. It should be noted that preferences were not static in that they varied according to the academic activity.

Lessons Learned

The OSI tool made data collection surprisingly easy. It provided a positive experience both for the subjects and the interviewers. Undergraduates were very willing to give input freely because they understood the benefit of contributing to the future of campus libraries. On the other hand, data entry and analysis took more time than anticipated. The opacity of language and meaning was difficult, but in the end, use of the tool benefited all team members.

Bringing Space to Life: Work-Space Monologues

SUSANNA M. COWAN, *Undergraduate Education Team Leader, University of Connecticut*

Beginnings

In 2008, a new Undergraduate Education Team was formed at the University of Connecticut (UConn) Libraries with me as the team leader. In general terms, the charge of the team was to be responsible for “all things undergraduate” in relation to the Libraries. More narrowly, the initial charge of the team (since updated) had two umbrellas: Information Literacy and The Learning Commons. The former would address areas of traditional activity such as in-person class instruction, but was defined broadly to include one-on-one research assistance (“reference”), outreach, publications, pedagogical inquiry, educational technology, undergraduate-aimed research tools, and assessment. The latter encompassed not only the actual Learning Commons in the Homer Babbidge Library, the system’s main library, but also learning spaces in an encompassing sense that included both electronic classrooms and spaces students used to do academic and other kinds of work. The latter was also intended to be inclusive of technologies that support all of the above—for example lab and classroom equipment or gadgets (laptops, cameras, and so on) available for student check out. The team wasn’t in all cases the final authority in equipping/furnishing spaces or acquiring databases/research tools, but the team was intended to be a primary stakeholder in these services and a voice at the table in relevant decision-making processes.

Two elements of this team foundation provided particular opportunities-*cum*-challenges. Although built out of what had been the undergraduate instruction group in the library, the new team was charged with a much larger scope that included the virtual library, and the “library as place” in its newer sense of a place aside from the library as place/collection. Although UConn has no designated undergraduate library, the Babbidge Library functions like one,

especially the way it is used as a study/work/social destination for undergraduates.

The team's broader charge, while greatly increasing the potential impact of undergraduate-focused library initiatives, also brought with it a huge challenge that might be captured in the question: What first? Or: Where do we begin? In terms of data on undergraduates, we had a series of LibQual+ reports as well as our internal User Survey results from past years. Space assessment was for the most part anecdotal and based on the insights of longstanding librarians' observations (casual or indirect) of how space needs were changing over time. Often changes in space were the result of available monies aligning with needed maintenance or replacement (the chairs on level x are worn out...hey, now we have some money...great, let's replace those chairs).

CLIR to the Rescue

The team's charge was well articulated, but its direction was not. That changed dramatically after a fortuitous event in early 2009. After several years of expressing interest in attending a CLIR-sponsored workshop, that winter we received an invitation to attend a workshop led by Nancy Foster on Faculty Research Behavior, hosted by New York University (NYU).

The stars aligned at this point: the invitation arrived just as the new Undergraduate Education Team was settling into its first full semester as a team, so a colleague and I attended. Although the workshop was faculty-focused, the techniques—filmed faculty interviews and basic ethnographic observation—were readily applicable with some adjustments to researching undergraduate behavior. As a guide, we also had Foster and Gibbons's seminal report, *Studying Students: The Undergraduate Research Project at the University of Rochester*, which had been published in 2007 and was required reading for the January 2009 workshop.

On the final day of the CLIR workshop at NYU, Foster set aside time for institutional "teams" to brainstorm project plans that would draw off of the assessment techniques learned over those two days. Our brainstorm began with the questions that were nagging at us in light of our nascent team's charge:

- Are we approaching information literacy in the best manner, given our students' information needs, methods, and so on?
- Are we (physically and virtually) where and what we need to be for our undergraduates?
- What spaces do undergraduates frequent to get work done?
- What technologies do our undergraduates use?
- Do we help them? Can we help them? How should we help them?
- Are we asking enough questions? Are we asking often enough? Are the questions the right ones? (Are they being asked in the right way?)

That afternoon, a sketch of what would become the Assessment 360 project at the University of Connecticut Libraries was drafted with all its component parts.

Assessment 360: The Power of Not Knowing

I believe now that, had I known what I was getting into with Assessment 360, I might never have done it. The power of not knowing is twofold in this case. Not knowing so many things about our undergraduates at UConn was a great motivator in the study—our great curiosity and eagerness to know “everything” propelled us in our work. Corollary to that is the fact that our tremendous ignorance about just what was involved in taking on four assessment techniques at once shielded us (at least initially) from feeling overly daunted by the undertaking.

The questions above led my colleague and me to outline a study focusing on questions about how students work, where they work, and what technologies they use (when working and in general). It was our intention and hope that the results would complement each other so that information gained with one instrument would expand upon or elucidate information gained in another.

We zeroed in on three techniques:

1. Focus groups on the newly expanded Learning Commons in the Homer Babbidge Library.
(Do they know what it is? Do they use it? What parts of it/services in it do they use? How effective is it/are its component parts? What activities do they do while there studying or at the computers? What works? What doesn't? What would they call the space? and so on.)
2. Filmed interviews about how students get work done in general and particularly on a computer when they use one (they all did).
(What technologies do they use in general and specifically to get work done? How do they get help when they need it? Where do they go/whom do they ask for help? Is “personal touch” important to them? How do they configure their virtual workspace? What websites do they visit regularly when doing work? How do they begin research? and so on.)
3. Filmed work-space monologues in which students filmed spaces and narrated answers to questions about those spaces.
(Where do you go regularly to do academic work? When do you usually go here? What do you like/dislike about it? Do you go here alone? and so on.)

In discussion with team members, a fourth element—an online undergraduate technology survey—was added, modeled on the one Char Booth had recently designed for assessing undergraduates at Ohio University. The addition of this mostly quantitative piece rounded out the study with “numbers” that nicely augmented the qualitative pieces. (How many undergraduates own smart phones? What activities do they perform on smartphones? What kind of PC

do they own? What online library resources do they know about, use, or be willing to use? and so on.)

Work-Space Monologues: The Final Piece

Of the four techniques, the work-space monologues were the only ones that we made up to suit the needs of our research. Although the focus groups on the Learning Commons had a series of questions that focused on space, those conversations were second-hand reflections on space rather than depictions of specific spaces through student eyes.

The question that inspired the monologues was the following: What spaces do undergraduates frequent to get work done? And more to the point: What do those spaces look like? We didn't just want a list of popular spaces; we wanted to see those spaces. We considered other techniques: focus groups, a photo journal, or...? What we wanted was an instrument that would convey, not only what these spaces looked like, but also what they sounded like and "felt" like—and when, where, how, why, and with whom they were used.

It was quickly clear to us that we needed moving pictures—that is, film. We also wanted the students to be the ones capturing the images, as they would do in a photo journal activity. We believed the advantages of having them film spaces as opposed to photograph them were the following:

- Film would capture a fuller context than a photograph—instead of one static image, we'd have a recording of a space that could capture surrounding areas and zoom in on details.
- Film would allow students to narrate while in the space rather than answer questions about a space later, when it might not be as fresh in their minds.
- Film would allow us, the researchers, to play and replay the footage without ever changing the original; in other words, we could replay the film over and over without distance or time changing that original captured time/space.
- Film and the accompanying narration might yield fruitful "unscripted" moments in which students provided information beyond what we'd asked for (we got plenty of this).

Making the Monologues Happen

One of the biggest hurdles to overcome in conducting Assessment 360 was the submission of a study protocol to the Institutional Review Board at UConn, a process completely unknown to me or any other members of the team. After completing the required online research on human subjects training, it was clear that two parts of the study—the filmed interviews and the work-space monologues—were most likely to raise alarm bells with the IRB. Although I deemed all parts of the study to be minimal risk given the focus of the study, I imagined that the IRB would have genuine concern about filming students (the interviews) and sending students off to

film spaces on and (potentially) off-campus.

Just how many safeguards I would have to include in the study really came home to me as I sat down to write the somewhat cumbersome four-part application (that is, I wrote one study application for the IRB in which I included the four parts of the study: focus groups, technology survey, filmed interviews, and work-space monologues). The process of writing such a long application meant that the IRB didn't get submitted until December 2009, almost 11 months after my attendance at the CLIR workshop in New York. Not until I wrote the methods section for the monologues did I devise the final structure for that instrument, which would comprise three parts:

1. Students would meet with two members of the team to go over and sign two forms, the consent form and the filming guidelines (the two signed sheets were required by the IRB), and go over filming instructions.
2. Students would take approximately one week to do their filming.
3. Students would meet again with two members of the team, this time to view their footage and have a "debriefing" during which we could ask follow-up questions. This debriefing would be audio-recorded so that we could have a transcript record of that conversation.

As an incentive, I chose a \$50 gift card to the university's Co-op—an amount I thought would be fair given the fact that students had to meet with researchers twice in addition to doing the filming itself. Incentives for the entire Assessment 360 project were funded by another new Libraries group called the Planning Team, created to fund "strategic" work in the Libraries that had no other obvious source of funding or fell outside of traditionally funded activities.

Additionally, we purchased two Flip cameras (as they were still called then) so that we could have two students filming at once, thus—I hoped—increasing the number of students we could include in this part of the overall study.

Conducting the Monologues

The monologues had been scheduled as the culmination of Assessment 360, the final, most ambitious part of the study because of its complexity and originality. The study began in February 2010 with the focus groups and the subsequent technology survey and filmed interviews took the study into late March. It wasn't until mid-March that I was able to turn full attention to the monologues, beginning with a recruiting email to nearly all undergraduates. The email generated a surprising 60-plus responses from students interested in taking part.

The first intakes/consents took place near the beginning of April. After reading over and asking students to sign the rather lengthy consent form (IRB wouldn't allow an information sheet instead), we then reviewed two additional documents with each student: a

filming guidelines sheet, which they were required to sign, and a sheet of instructions for the actual filming.

The guidelines were fairly formal and represented the IRB's concern that students be clearly directed how to treat "private" spaces such as dorm rooms and how to protect the privacy of others when filming. The four principal guidelines were these:

1. The purpose of this film is to gather information about places and spaces, not about people or individuals. Therefore, unless you can't help but film people (it's the Union at a crowded time), we ask that you do your best to focus with the camera on furniture, lighting fixtures, the general outlines of a space and other things and leave people out of it (as you can).
2. Sometimes filming individuals and groups will be unavoidable. If you do film people, be sure to:
 - a. Pass your camera across them only as long as is necessary to capture the space they're in; in other words: don't focus your camera on an individual or group and let it sit there.
 - b. Offer anyone who asks a written statement about the study. This statement will contain contact information for the Principal Investigator (Susanna Cowan) and the Institutional Review Board (the body that oversees the ethical requirements of research) in case that person has further questions.
 - c. Stop filming someone immediately if they make it clear that they do not wish to be filmed.
3. If you film in "private" spaces, such as your dorm room, please do not include people in the film—especially your roommate(s)! If you are filming in a pseudo-private space, such as a dorm study lounge, please verbally ask for permission to film while people are in the room before turning on the camera.
4. If you want to film a private commercial space (like Starbucks), please inform a store employee of your intentions and offer them an information sheet about the study if they ask for one. If they forbid you to film, you must not film. However, you can film the entrance from the outside and narrate your responses to the questions from there.

We further admonished students that:

If, despite your best efforts, you capture footage that we deem is too invasive of particular individuals or groups, we will use software to blur their faces. If blurring is insufficient to protect any individual's reasonable expectations of privacy, we will use software to delete/permanently destroy that section of the film.

And, if that weren't clear enough, we added (in italics):

If a significant portion of your footage (considered in its entirety) appears to make insufficient effort to protect any individual's reasonable expectations of privacy, we will delete/destroy the entire video file. This judgment resides with the Principle Investigator of this study.

As with the main consent form, students were asked to read over the guidelines, repeat the basic principles and, if willing to do

so, sign them in order to participate in the study. Without exception, students willingly signed the forms (both consent and guidelines) and had few, if any, questions about them. (Students were clearly somewhat bored by the length of the consent process and relieved to reach the point of signing and moving on to the study—and this was true across all the study instruments).

The prompts (directions) we handed out for the filming process were meant literally to prompt the students about what information we wanted to get about each space they filmed. We required no particular order in answering these questions, but did hope we'd get answers to all parts of each of the questions, which were as follows:

(1) Go to places that you habitually/regularly go to in order to study, do academic work—places you frequent either alone or with one or more other people.

Film this place from all perspectives/angles—imagine you are filming in order to make a visual “record” of the space (pretend you're filming so that an animator at PIXAR or some other company can recreate the space, using only your film to guide them).

During or after you finish filming perspectives, please focus your camera on the space and tell us, generally, what makes this space good (or bad) for doing your work. Specifically, we'd like you to answer the following questions about the space:

1. What time is it now (while you're filming)? What day of week is it?
2. When do you usually go to this space (what time of day, days of week, and so on)?
3. What makes the space good for getting work done (furniture, lighting, noise, lack of noise, proximity to something else—food, for example— and so on)?
4. By “getting work done,” do you have a particular kind of work (studying, research, writing) in mind? Would this space be “good” for certain kinds of work and “bad” for others?
5. What isn't ideal about the space? (This might be particularly relevant in regard to spaces you've described as “good.”)
6. Whether you've described the space as good or bad (or something in-between), what could be done to improve the space (if anything)? In other words, what would you change about the space if you could?
7. Do you usually work alone here or in a group (at least one person other than yourself)?
8. If you work alone, are there other people usually nearby? Is this a plus or a minus in regards to the space?

Please let the camera run for at least one minute from one perspective, without narrating, so that we can really “see” the space (and, perhaps, hear the space!).

(2) The following questions are particularly aimed at spaces you label “bad” (or something less than “good”). If you haven't filmed a “bad” space, could you please do so ... find a space that you would describe as being “bad” for doing work, studying, or

doing research and then answer the following:

1. What time of day is it now (while you're filming)? What day of week is it?
2. You've described this space as "bad": would it be bad on all days, at all times?
3. Is this space "bad" for doing all types of work, or only certain kinds? (Specify, please.)
4. Could this space be improved (if you had a magic wand) so that it turned into a good work space—or is it simply "bad" and not worth changing?

Monologues: The Aftermath

This brief synopsis is not aimed at describing in any detail the findings of any part of Assessment 360, including the work-space monologues. A full discussion of the study can be found in *Assessment 360: Mapping Undergraduates and the Library at the University of Connecticut*.¹

As the full report discusses, the results of the monologues were fantastic in every way. I don't mean to imply that the study was fantastic in every way (I'll get to the "what we'd do better next time" in a moment), but that the information we got from students was rich and significant and, as we had hoped, it literally brought spaces both inside and outside our library to life. As in the focus groups, we heard students describe the importance of space to spread out when working, of having power outlets within reach, of needing light, of wanting comfort—but also at times wanting more structured spaces. Bottom line, we learned that they like a range of spaces, depending on what they're doing, and we got some concrete examples of what "good" (and less than good) spaces look like—and what makes them good or not so good.

We did due diligence with our data, painstakingly transcribing the film narrations and the debriefings (thank you to members of the team and a lucky appearance of library school interns just when we needed them!). We viewed the films and I carefully labeled the video files and hid them away (as promised) in limited-access directories on my hard drive and made backups (on CD) for safekeeping. On the transcriptions I ran word/synonym/related term counts and did concordance-like analyses and asked team members to read transcripts and highlight phrases and words that jumped out at them, after which we did some basic clustering activities.

On the basis of these analyses I prepared "findings" that were shared internally at staff meetings and externally at various conferences—always with excerpts from the films to bring the data to life. Finally, after some delay, I codified the findings in the report, now published on the CLIR site.

¹ Available at <http://www.clir.org/pubs/resources/Assessment360.pdf>

The Learning Curve

The Assessment 360 process was a learning experience from start to finish. Only the survey technique was familiar to team members—so simply conducting the focus groups, interviews, and monologues brought us into unknown territory. In the end, conducting was the easy part—working with students was wonderful, the equipment (both our own cameras for the interviews and the Flip cameras for the monologues) worked flawlessly, and the results were all we'd hoped they'd be.

But the “before” (the IRB and planning stage) and the “after” (the analysis and dissemination of data) were more work than could have been predicted going into an unknown process.

More than 60 students responded to the initial call for monologue participants. The huge number of eager students (many expressed not just willingness but excitement about participating) seemed to hold the promise of conducting monologues with a dozen or more students. As it turned out, however, we conducted merely nine—and only that many by getting permission to extend the study into and slightly beyond the Fall 2010 semester. We began right away with two students, but although one student finished her filming quickly and returned for her debriefing within a week, the second student got delayed and several weeks passed before we finally sat down for our debriefing.

We had written into the consent form a statement that the incentive (the Co-op gift card) would be provided only after completion of the entire study (initial meeting, filming, and debriefing), but we had no statement indicating that not completing the filming within a certain time period would affect receipt of that incentive. Although we had a suggested timeframe of one week for the filming, we had no mechanism to enforce that. Because we had to guarantee the privacy of students, Flip cameras were simply given to students rather than checked out to them (which would have tied their name to a camera and thus to the study). We had no problems with theft, but the lack of any “tie” to the equipment meant that we couldn't use the camera as leverage to speed up the filming process. Any future version of this study will certainly use the consent process to put a timeframe on the study and the initial consent meeting will include the process of formally scheduling the debriefing so as to control (or control better) the length of time it takes students to get through the filming, which itself often takes the students less than an hour to complete, judging by the length of footage we received.

I'd imagined the monologues as the culminating part of the study, but in doing so inadvertently short-changed the monologues when it came to timing. Because the first cameras didn't go out until the start of April, we had only about three weeks of viable time before finals loomed and students couldn't be asked to give up their time. The first camera came back and went out again—which added the third and final monologue for the semester. However, even the following fall, with an entire semester to conduct further monologues, we only managed to get through six more before finals once

again loomed. If we do a student-filmed project again, we'll be sure to have enough cameras on hand to send at least three students out at once.

Although the quality of filmed data was overall wonderful, it's worth noting that few students adhered exactly to the directions. In writing the filming prompts I had thought I was being to-the-point, but few students referred to those prompts while filming—and so they captured the points they remembered (usually where they were, when they usually went there and the good/bad about the space). If repeating the monologues, I'd somehow create a more succinct filming directive for the students, something they could easily recall on the spot as they were filming. Or perhaps I'd create a small card-sized filming prompt that they could be instructed to carry with them while filming. As I like to put it, the strength of the monologues was that they were student driven. And a weakness of the monologues was that they were student driven. Balancing the desire to allow them freedom (because it leads to interesting off-the-cuff narration) and get specific information from them (for one's research goals) isn't easy with this kind of technique.

Probably the most difficult part of conducting the monologues was giving analysis the time it needed. Lack of expertise in textual analysis (the transcripts) didn't seem a terribly huge obstacle as the limited number of monologues and their limited length meant that a small group could quite reasonably do at least some basic textual coding—enough to make the results meaningful. In the end, the team lacked time more than expertise. Trying to run a multi-part study while simultaneously doing “everything else” was difficult; it led to the analysis stage dragging on a number of months in order to include everyone.

Meta-Findings

The data from Assessment 360 was, in the end, worth every bit of anxiety the process produced. But beyond the data we gleaned about our students, the power of the study overall was the “meta” data it provided us about best practices for conducting such research in the future.

Key meta-findings include:

- Conduct only one study at a time. Now that we know how much doing such work requires, we can't go back to that naïve but also powerful ignorance which led to conducting four studies at once.
- Streamline the process whenever possible: structure all parts of a given study if possible, including the timing of meetings and the length of any student-driven part of the study.
- Work with the IRB to find a compromise if possible between a full-length consent form (or multiple forms!) and an instruction sheet.
- Have a project plan in place before the start of any study that lays out the stages of analysis, including time allotments for each stage and who will be involved with specific tasks.

- Investigate getting outside (faculty) help with analysis if the amount of data merits it.
- Have assessment instruments developed within a group of stakeholders rather than by one or two staff members—thus getting more input up front and increasing “buy in” from the very beginning of a project.

Monologue Redux?

Student filming was such a powerful technique that I’m sure we’ll return to it in the future. Right now we’re focusing on other assessment work but I have no doubt, as we continue to shift our library collections and spaces—and as students shift their habits regarding spaces and work habits—that we’ll find ourselves again wanting to capture the spaces they use from their perspective and in their words. I’ve been thinking about how film might be an interesting way to capture a student’s gaze ... particularly with regard to how we mark our spaces with signs and other directional information. Perhaps a hat with a camera attached? (I’m picturing a miner’s hat—but somehow cooler looking). In any event, we’ve added student films to our toolbox and I’m sure we’ll pull it out again before too long.

UX Photo Booth: A Budget Method

SUZANNE CHAPMAN, Head, User Experience Department, MLibrary, University of Michigan

Introduction

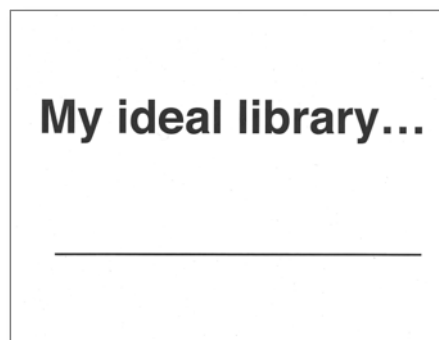
The University of Michigan Library User Experience (UX) Department primarily focuses on designing web interfaces and conducting user research to inform this design. Because resources are limited, we are always looking for quick and easy ways to learn more about our users and to supplement our more rigorous research efforts. We often employ “budget” methods that are scaled-down versions of standard research techniques, or simply methods that require few resources (money, preparation time, analysis time, and so on) for successful completion. Budget methods enable us to learn valuable information about our users quickly, leaving more time for the design process.

A couple of years ago, the opportunity arose to participate in our Undergraduate Library’s annual “Party for Your Mind” outreach event. At this event, new and returning students are welcomed to the library and greeted with pizza, crafts, games, and a scavenger hunt. The goal of the party is to introduce students to some of the services the library offers while providing interactive and engaging activities.

The UX Department’s contribution to this event included setting up a photo booth to capture the students’ energy and enthusiasm

while also gathering a little information, in the students’ own words, about what they value in a library. Students were given a piece of card stock emblazoned with “My ideal library... _____” and were then asked to fill in the blank and pose for a photograph with it.

This little experiment produced some pleasant surprises. Although a few timid students declined, most seemed excited to participate and even expressed their view that it was “cool”



they were being asked. Many of the students were very thoughtful about their answers, often taking a few minutes to think of the best response. Best of all, some of the answers that were intended to be outrageous actually turned out to be teaching moments. For example, one student wrote that his ideal library has graphic novels. Unaware that we actually have a sizable graphic novel collection, the student was nearly speechless when informed about it!

The setup is simple:

1. Room with a plain blue backdrop and decent lighting
2. Apple computer or laptop with web cam and Photo Booth software (this allows the students to see themselves on the screen before the photo is taken which allows them to primp and also seems to encourage them to ham it up)
3. Photo consent form explaining that the photo will be shared publicly via Flickr and Facebook
4. Card stock with "My ideal library ... _____" printed on it
5. Markers (for filling out cards)

Results

Over the last two years of doing this—and 84 participants—some themes have emerged.

Food

Eleven out of eighty-four responses (13 percent) were related to food. Some, such as "My ideal library always has free food," were likely in response to the fact that they'd just received free pizza. Other responses, such as "My ideal library has really good calming tea" and "My ideal library allows food," perhaps speak to a more general appreciation for the fact that the Undergraduate Library has a coffee shop and doesn't prohibit food.



Noise

Eleven out of eighty-four responses (13 percent) were related to noise. Most of these, such as “My ideal library has few distractions,” “My ideal library is quiet enough to hear the computers hum,” and “My ideal library is social yet quiet,” were specifically about valuing quiet study spaces. But a few preferred a less quiet environment, stating that “My ideal library isn’t silent” and “My ideal library is LOUD AND CRAZY.”



Space

Nineteen out of eighty-four responses (23 percent) were related to the library’s physical environment—specifically about sleep, comfortable chairs, and study space. For example, responses included “My ideal library has squishy chairs,” “My ideal library has a nap space,” “My ideal library has private study rooms with white boards,” and best of all “My ideal library is easy to navigate (or really fun to get lost in).”



Stuff

Seventeen out of eighty-four responses (20 percent) were related to the collection offerings of the library. Despite all the interest in food, sleeping, socializing, and quiet, students are still very interested in the physical materials the library has to offer. The responses ranged from the specific “My ideal library has a good fiction section” and “My ideal library provides tons of multimedia & films” to the broad “My ideal library is full of knowledge.”



Miscellaneous

The remaining 26 out of 84 (31 percent) were often general responses like “My ideal library knows me by name!” and “My ideal library is this.” However, most trended toward the more fantastical or silly. For example, “My ideal library has a moon bounce,” “My ideal library hates OSU,” and “My ideal library has 1 million puppies.”



Summary

This participatory-design-style project proved to be a very simple, fun, and interesting way to engage our undergraduate students. We gained some insight about our students, and our findings have mirrored what we've been learning from our more extensive user research projects. Equally important, many students ended up learning something valuable about what the library has to offer. They seemed to appreciate the opportunity to express themselves and give input on the library—which helps them see it as “their” library. All in all, one couldn't ask for a better return on investment, given the minimal time commitment as compared to that of other user research efforts.

See also:

- Party for Your Mind 2010 flickr photo set: <http://www.flickr.com/photos/mlibrary/sets/72157624762715247/>
- Party for Your Mind 2011 flickr photo set: <http://www.flickr.com/photos/mlibrary/sets/72157627628500201/>
- Party for your Mind 2012 flickr photo set: <http://www.flickr.com/photos/mlibrary/sets/72157631473093536/with/7958964626/>
- Party for Your Mind advertisement: <http://www.lib.umich.edu/shapiro-undergraduate-library/events/party-your-mind>

Participatory Design at the American University of Central Asia

SANIA BATTALOVA, Director of Information Resources and Technology, American University of Central Asia

Introduction

The American University of Central Asia (AUCA) is an international, multidisciplinary learning community in the American liberal arts tradition. It is the only liberal arts school in Kyrgyzstan, the former Soviet country, which gained independence in 1991.

The university was founded in 1993 and currently has about 1,200 students from more than 15 countries. Since 2008, AUCA has

AUCA Background Information



- Former American University in Kyrgyzstan - Founded in 1993
- Liberal Arts University
- Private University
- 11 Degree programs (undergraduate) and MBA
- 1,200 students (40% men and 60% women) – from 15 countries

partnered with Bard College to create a program granting Bard degrees to AUCA graduates in 11 academic disciplines. This is improving the quality of education at AUCA, specifically, and in Central Asia, in general.

Our Study

In January 2011, a group of AUCA representatives, including librarians, IT professionals, and faculty, learned about participatory design and ethnographic research methods during a workshop conducted in Rome by Nancy Foster for the American International Consortium of Academic Libraries.

Inspired by the idea of ethnographic research and the opportunity to learn more about students and their work and study habits, the AUCA Ethno Study working group was created.

The working group wanted to answer the following questions:

- How do AUCA students accomplish their research projects and papers?
- Where do our students work on their research projects papers and why?
- What resources do AUCA students rely on?

The AUCA Ethno Study working group included ten librarians, IT staff, and faculty. Group members attended several workshops and meetings to learn more about the methods we were going to use (observation, retrospective interviews, mapping, photo interviews), as well as to develop criteria for selecting the students who would



Library Silent Room, Library corridors and Computer Labs



Space for learning - Cafeteria



participate in the research. We created a special page on the AUCA course management system to facilitate group communications and to collect and track all work and resources.

The university has very limited space and will soon move to a new campus, so currently library and computer laboratories and even library corridors and the cafeteria are used as places for learning and studying. It was interesting to observe how effectively students are using these areas and how they cope with limited space.

Mapping and photo interviews gave us information about students' daily schedules, learning processes, and learning space preferences. Those interviews proved how busy our students are. During meetings with students for the retrospective interviews, we gained detailed information that helped us understand how they prepare and submit written assignments.

We had only two months to conduct the research. Eighteen students were selected and worked with us through all the research stages. We gained a huge amount of information, which we continue to analyze and have already used for different purposes: from library and IT service improvements to the development of better faculty attitudes toward academic communications with students.

Findings

Some of our research findings were pretty shocking. For example, 16 out of 18 students told us that they don't use library sources if they can find information online, and they don't use the library databases as a primary information resource. We called our students "Google-centric" because they always start their search with Google and rely heavily on Google sources.

Library sources are not even the second source for students. In many cases, they don't use any resources other than those identified or distributed by their professors. If the professor is not very familiar with the library's databases, the students are not apt to know about, much less use, them. We also found that our students have problems analyzing texts or data, and in some cases don't understand the difference between scientific and peer-reviewed sources and personal-opinion, non-scientific articles.

Promoting the library's resources and ensuring that they are used most effectively to serve academic needs will require stronger collaboration between the library and faculty, the library and students, and students and faculty.

The ethnographic study helped us learn more about our students by understanding their needs better and what we need to do to improve library services. It was also one of the first library projects where students were involved and shared information about their learning habits, study preferences, challenges, and concerns.

Key Research Findings

- Students don't use the library databases as a primary information resource
- Students are "Google-centric"
- Students in most cases don't use resources other than those identified or distributed by their professors
- Students have problems with analyzing texts or data
- There is a need for stronger library-faculty, library-student, and student-faculty collaboration

Resulting Activity

- Introduce information literacy into courses across the disciplines
- Incorporate bibliographic instruction into courses
- Support library collaboration and workshops for faculty
- Provide e-resources introduction meetings, consultations, and training session for faculty
- Create student-oriented library reference and student consultation services—"Reference Hub"



Activity Resulting from Research

Our study helped establish a higher level of collaboration among students, librarians, and faculty. The data we collected is a great source of information, and we are going to continue our research, especially now that the university is moving to a new campus.

Value for Research Teams

- Provided successful collaboration experience across departments and services
- Strengthened communication with students
- Deepened our insights into and our appreciation for students

Of Failure and the Importance of Analysis in Participatory Design

GLEND A MORGAN, *e-Learning Strategist, University of Illinois at Urbana-Champaign*

Introduction

As one of the key people involved in thinking about how to create a Media Commons within our Undergraduate Library, I attended one of the CLIR Workshops on Participatory Design. I have been doing user research for some time. My training is originally as a political scientist, but the methodological skills I learned in my graduate program prepared me for research into technology usage, which is part of my job in IT as well as a core passion and interest in my spare time.

Over the years, I have worked with EDUCAUSE as a researcher and have trained IT professionals and librarians on how to do their own research and evaluation. During the past eight years, I have been either PI or co-PI on close to a million dollars in National Science Foundation grants that used mixed methods to explore how students and faculty use technology and what impact that has on their teaching and learning.

I firmly believe that as IT professionals or librarians working in higher education we must all develop at least some skill in doing either formative or summative evaluation. If data does not guide our decisions or inform how we judge our successes and failures, then we do our institutions a great disservice and we have no business being in higher education.

I have talked about my skill and experience as a researcher at some length to make the point that even if you have experience in research, you are going to make mistakes, often very big mistakes. This account is really about a failure on my part, but it is a failure that I found to be a useful learning experience. By sharing it, I hope that fewer people will make the same mistake.

Failing the First Time

I returned from my CLIR training eager to try the participatory design method on a problem at my institution. I got my first chance in my own unit when we learned that one of our central general access computing labs would have to move from one location in our Student Union to another. The Student Union needed a more modern and student-friendly design in the new lab we would share. Our old lab was quite cramped and was set up to maximize the number of seats and minimize the amount of time students spent in those seats.

To inform the new design, I recruited two of my colleagues and explained the concept of participatory design to them. Clutching pads of paper, markers, and \$5 coffee cards, we set off for the Union. Soliciting student feedback on what they would prefer to see in a computing lab started slowly but soon we were done. As the three of us analyzed the drawings we had gathered, I started to see some themes emerging—many of the same themes I had seen in the exercises we did at the CLIR training. Students wanted something other than the rows of tightly packed machines: they wanted collaborative spaces, more organic shapes and designs, lots of natural light, and easy access to food and coffee.

But that's about as far as the analysis went. As often happens in real life, the redesign of the lab was less a transparent process of careful planning than a chaotic sequence of events where, because of time constraints, decisions were often made by people acting alone without the opportunity to consult with others, including those who really should have been leading the decision-making (and I don't mean me in this case). To add to the confusion and lack of transparency, there was considerable uncertainty about who would be running the lab. At one point the Union decided they would run the lab, then they were going to hire us to run it, then they were going to leave things as they had been. We still run the lab but we aren't certain for how long. The input gathered from students was never used in any formal planning process by a team making decisions. But elements of what we learned were incorporated into what was eventually built thanks to one of the colleagues I recruited to join me in the participatory design work. This colleague was our interior designer and the person who ended up having to draw up the design of tables and stations. Thanks in part to things she learned or things that were emphasized in our data gathering, the new design incorporates more of what students want: a more organic flow and more opportunity for collaboration.

Failing Yet Again

Using the participatory design exercise to inform our new computer lab was a less than successful undertaking, but I vowed to do a better job when I worked with librarians to gather input for the new Media Commons. Progress on that was moving more slowly than anticipated. Although I am in IT and not part of the library proper, I was part of the core group committed to making the idea a reality.

In the belief that gathering some data and input would help speed planning, I set up a series of interviews with faculty and instructors who regularly use multimedia in their courses, and I started planning a participatory design exercise to gather data from students. Librarians were enthusiastic: the library dean arranged for me to get 40 \$5 coffee cards as incentives for students, and the Undergraduate Library gave me a space where I could gather data. As it turned out, no librarians were able to help me gather data, but two enthusiastic IT and media professionals from one of the colleges volunteered and they excelled at the task. In short order we had gathered drawings (often very detailed) and input from 40 undergraduates, and we were ready to feed this input into the planning process.

Once again, it didn't quite happen that way. There was a five-month delay between the time the data was gathered and when those involved in planning the Media Commons actually looked at it. Project planning resumed when the head of the Undergraduate Library returned from sabbatical. I still had all the drawings and input and was enthusiastic about using this input to guide decision-making. These hopes were shared by the head of the Undergraduate Library with whom I co-chaired the Media Commons Task Force.

We scheduled a meeting to start the process, and that is where I made the crucial mistake. I did not insist either at that meeting or at any subsequent meetings that first, all the people involved in planning be present and, second, that we spend an adequate amount of time analyzing the participatory design drawings. Instead, we had a brief glance at the drawings and moved on with more conventional discussion.

What we should have done was schedule at least a one- to two-hour time slot for the whole planning group as well as for anyone who would have input into the design, execution, and running of the Media Commons to examine the data. During that two-hour session, we should have carried out a hands-on content analysis of the drawings and input, with the participants in the meeting generating the analysis and constructing the themes they saw emerging. The fact that we did not have that meeting and did not do that hands-on analysis meant that we had no shared understanding of what kinds of qualities and services students desired in a newly designed space.

But all has not been in vain. The head of the Undergraduate Library, the manager of the computer lab included in the space, and I analyzed the data from the participatory design exercise and through our leadership roles in the redesign have incorporated some of the broader ideas and themes. But the process would have been a lot stronger if I had done my job properly and organized the data analysis in the way that I was trained to do it.

Conclusion and Lessons Learned

The experience of this failure has taught me some important lessons about how to do participatory design and any type of evaluation activity.

First, the importance of the analysis and reporting phase of research cannot be overemphasized. We tend to focus so much on developing a good research design and on picking appropriate methods and gathering excellent data that we forget about the stages that come after that. But they are critical stages in all types of research, and especially in participatory design, where some group analysis of the input is a crucial part of the process. Data alone is not enough. Stakeholders need to “own” the data and translate it into action.

Second, planning and executing a new project is always going to be messy and will never run completely according to plan. Be prepared to be light on your feet and find new ways to insert the analysis and reporting of your evaluation activities into that process.

Third, on a more mundane and practical level, you will need a significant amount of space and time to do a real all-stakeholders-on-deck analysis of the participatory design data. You will need an hour to two hours and a large room with a lot of table space. It cannot be done in less time or in a smaller room as you will not have enough table space to lay out the pictures. Getting both of these can be difficult, but you need to persevere.

Fourth, a lack of appropriate assertiveness in arguing for a meeting of this length, a place of this size, and the importance of the data you have gathered is doing both yourself and your institution a disservice. This lack of assertiveness may come naturally to many of us in academia and the library, but we need to get over it.

Finally, things are going to go wrong in any research project. It is the dirty little secret in all research, which is usually written up as if it all went according to plan (see Hargittai 2009 for a nice and unusual collection of other accounts of when research goes wrong). But research never goes completely according to plan and neither do our IT and library projects. Being honest about this will mean that the work we do will be much better.

References

Hargittai, Eszter, ed. 2009. *Research Confidential: Solutions to Problems Most Social Scientists Pretend They Never Have*. Ann Arbor, MI: University of Michigan Press.

Feedback-Gathering Measures for the Larsen Room Renovation in Lamont Library at Harvard University

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Introduction

The Larsen Room in Lamont Library at Harvard University opened in September 1994. It was the first electronic, hands-on classroom in the libraries at Harvard. The room was set up with four rows of tables, and three to four computers in each row. The Robotel system was installed in the room to provide the capacity to display images from the instructor workstation and any other workstation in the room. The Larsen Room was used for expository writing library classes, freshmen seminar library classes, and all kinds of other course-related library instruction, as well as for library workshops and staff training. This setup worked for a number of years, but as instructor and class needs changed, with more interaction and an increase in dynamic teaching practices, a need was seen for renovating the room to allow for greater flexibility in teaching and learning.

In preparation for renovation of the Larsen Room in Lamont Library, two studies were carried out. The first involved a group of library and planning staff who solicited student input through a participatory design workshop held in the Lamont Forum Room in May 2011. The second study, which elicited input from staff members who have taught in the room in the past year, involved two focus groups that Cheryl LaGuardia facilitated in June 2011. What follows is a summary of those studies.

The Participatory Design Workshop with Students

Eight students were gathered on the basis of librarian recommendations to be part of the participatory design workshop: seven were undergraduates and one was a graduate student. At the beginning of the workshop, one of the workshop team accompanied each student to the Larsen Room to ensure that the students knew which room

was going to be renovated and give them a visual understanding of the room's dimensions. Next, the students were given large sheets of drafting paper and markers and were asked to draw the ideal study space they would create in the Larsen Room.

When they were done with their drawings, the same workshop team member who had given them the tour of the Larsen Room debriefed them about their drawings—the students described what they drew and elaborated on their design concepts. After being debriefed, the students left, and the workshop team recorded all the elements of the drawings, and from those, also derived a list of functions and “feels” for the room desired by the students for an ideal study area.

What the Students Drew (What the Students Want)

Comfortable furniture that can be moved easily, including:

- Couches
- Chairs: easy chairs, chairs at tables—all comfortable; some students asked for footrests with the easy chairs
- Tables for both individual study and group study work
- White boards or chalk boards
- At least one projector to which they can connect their laptops
- Many conveniently located power outlets (not on poles)
- A variety of lighting: as much natural light as possible, non-fluorescent light fixtures, floor lamps, desk / table lamps, and wall lamps
- Good HVAC / air quality / temperature control
- Some students wanted a few fixed workstations with secured desktop computers on them
- Some students said that they want food and drink to be allowed in the room

Students all emphasized a desire for modular, movable, easily reconfigurable furniture that is comfortable and attractive. Most of the students also expressed a desire for the renovated room to be a studious place, quiet but not silent, “similar to a house library or Ticknor lounge.” They asked for “aesthetically enhancing” books, artwork (of provenance undetermined), and aesthetically appealing instruction / reference materials (for instance, posters with research tips on the walls). They asked that the feel of the room not be “stark.”

What the Staff Told Us

Eleven staff members from across the College Library participated in the two staff focus groups (all Harvard College Library and Faculty of Arts and Sciences library staff who had taught in the Larsen Room over the past year were invited). They were asked what kinds of classes they would like to teach in the room and what their needs would be in the renovated room, including furniture, equipment (hardware, software, and any other equipment that would support

their teaching), lighting, ambience, and room support. The staff gave us a wide variety of answers that may best be summarized thematically as follows:

How library staff would like to use the room

- To teach expository writing classes (Room G75 is too small and Room B30 is too big)
- To teach smaller classes using participatory-type activities
- To teach a variety of classes; would like to do same things you can do in B30 but in smaller groups
- To do reference interviews

Hardware specified as needed or desired for teaching

- Mac and Windows laptops available in the room for students to borrow, with security for these (could have a bank of laptops available to check out [with ID] to take to classes)
- Printer / printing capability
- Ability to lock hardware away when room is not in use by the instructors
- Availability of both Mac and Windows computers: some staff had no preference, but wanted both available for students; others preferred Windows over Macs
- Some staff wanted an instructor station to have dual-boot so that they could demonstrate to students Mac and Windows' differences in programs
- Other staff want to move back and forth between Mac and Windows using two instructor stations instead of dual-boot on one

Software specified as needed or desired for teaching

- Adobe Creative Suite
- Finale (necessary because this classroom was used routinely by music librarians and Lamont supports music composition and editing)
- Sibelius (same rationale as for Finale)
- Most staff members strongly expressed the need for the ability to download software onto the instructor's station for a class as necessary

Other equipment specified as needed or desired for teaching

- Screens at the far end of the room (as currently available) and screens on the side wall between the columns (to project on both—have option for either)
- Phone in the room to make local university calls for IT help, or for students to contact reference
- Clickers available for use
- Mini keyboards (to teach Finale and Sibelius)
- Scanner
- Ability to switch screens to what students are working on (it was pointed out that with the Robotel, presently in the room, that can be done); another staff member suggested NetPps—name has

changed (maybe SchoolVue)

- More large monitors that can be easily connected to both Macs and Windows; put the monitors on the load-bearing poles in the room that cannot be moved or removed
- Whiteboards – use the poles to support whiteboards; use the poles for something other than an obstacle; put artwork on them or something; put up student work
- Object projector (Elmo); more than one would be useful
- Book cradles and clean surfaces, for those who teach with artifacts
- Ability to webcast from room, like a studio; ability to broadcast a class to another classroom – a webinar but in person, or to teach to a classroom from the library room; webcast—real time, interactivity; video-conferencing, Skype

Furniture / furnishings desired

- Modular furniture to move and avoid columns
- Movable chairs, several types of chairs, variety of seating options (with arms, without, etc.)
- A teaching station on a mobile podium with computer/laptop hook-up in podium (need ability to face students while teaching, not have back to students)
- A seminar table that is set up, but flexible enough to invite students to work in pairs/triples
- A bookcase display area to bring in print resources
- Furniture that can be used by differently abled students (be mindful of ADA)
- Larger tables in the front, smaller configurations of tables in the back (to break up and do smaller group work use smaller tables, or pull pieces of the big table apart; tables in Philips have inlays that divide the tables—would be nice for Larsen)
- One chair/table that moves as a unit
- Rectangular tables to create rows or some variations
- Large space / table to be able to spread out; have flexible tables, but have contiguous surface (e.g., for maps)
- Option for sitting around a table (with instructor/class)
- Tables that can form blocks and rows
- “Lamont” warm wood
- Neutral colors (no orange)
- Comfortable furniture of natural-looking material
- Tables that define a sense of space/your area
- Storage area so you could use furniture for different set-ups (envision having a class, and then setting up small group areas for showing, allowing students to move around the class, enabling students to work separately with computers or materials, then having small group work areas; need several set-up options)
- Models of different arrangements displayed in the room for the benefit of instructors, with directions on how to set up the space in particular arrangements

Room aesthetics / environment

- Lighting that is highly adjustable
- Lamps and task lighting that will not glare on screen or others' laptops or work areas
- Window treatments that let in natural light but cut the glare
- Curtains/drapes would not be a place to spend money
- Easy-to-use window treatments; give users ability to close windows
- Improved air quality (grit being spit onto tables now)
- Much more adjustable temperature

Room support and administrative issues

- Larsen should not be as flexible as B30 because it would mean rearranging the room a lot or getting custodial support.
- Have similar IT support as in the case of B30.
- Have someone on call.
- Have software updates/installs done quickly.
- Have a more equitable way of sharing the room (if someone else has used it a lot, give others a chance to use it).
- Have an easier sign-up option than at present.
- Use digital signs: monitors in room can function as digital signage, highlighting library news, community activities, museum information.
- Would like regular monitoring to determine whether things are working or not (during the term have the rooms checked a couple of times a week and inform the instructors if things are offline).
- Give opportunity to provide feedback for each use: number of students attending, tech problems; have someone review it daily to address any issues.

Larger-scope items

- Make the entrance to the room at glass doors near the elevator, or take away the fire doors if they are not required (instructors think the doors should either be the entrance to the room or removed entirely).
- Make the furniture and layout flexible enough so that instructor can choose where the front of the room is.
- If there were money to make the Larsen Room the café and flip the teaching room into the café area, that would be good because the café space is more flexible; move into a section of the café for the teaching space.
- A model to follow is the Bass Library at Yale: it has nice underground space, is a flexible study space with big monitors with library news on them, and shows a good sense of color and a wood feel.

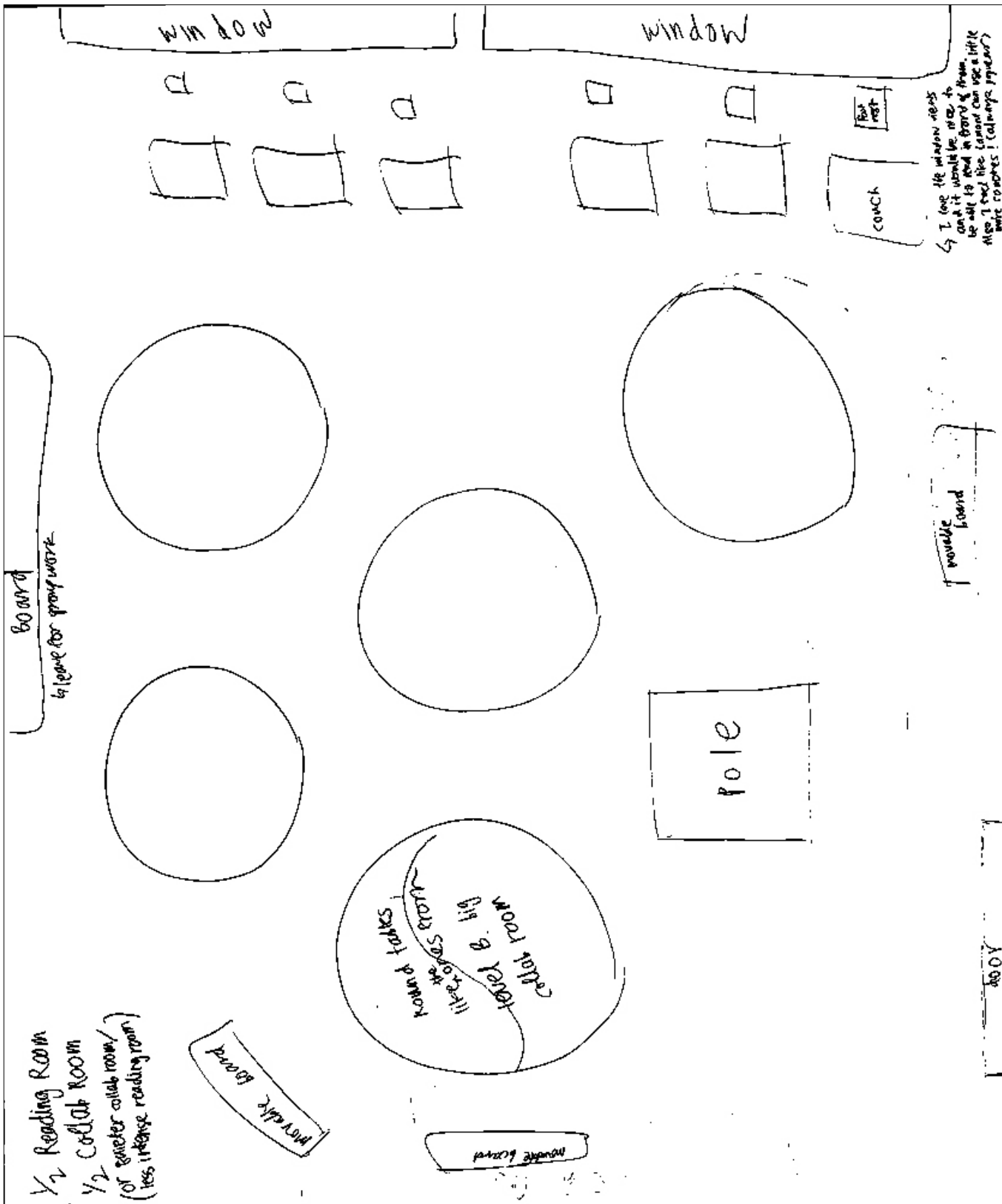
Points mentioned by (nearly) all

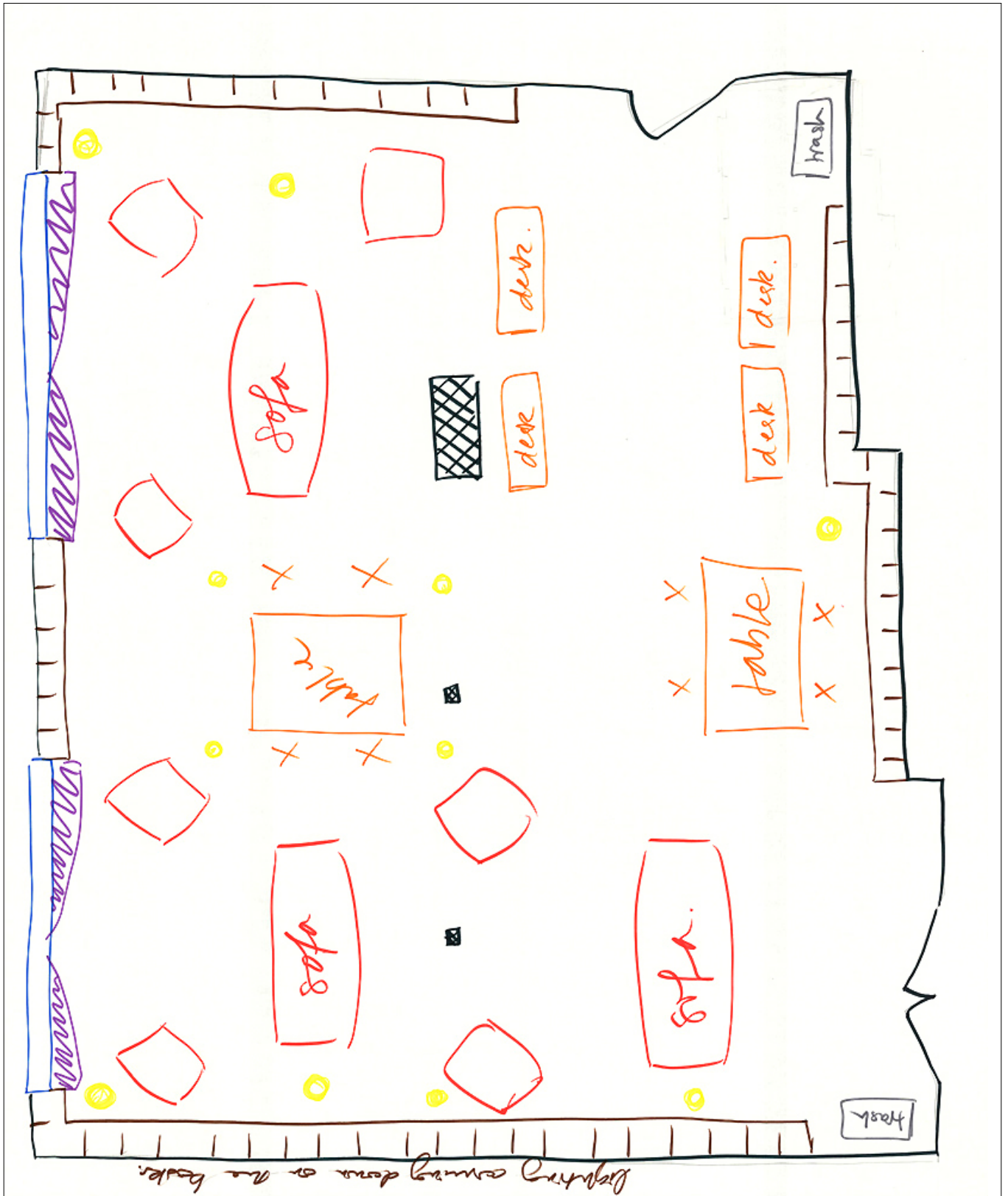
- However the room is designed, it should have a quick and easy set-up that allows for mobility/modularity/variation.
- Be mindful of differently abled students (ADA) in room design.

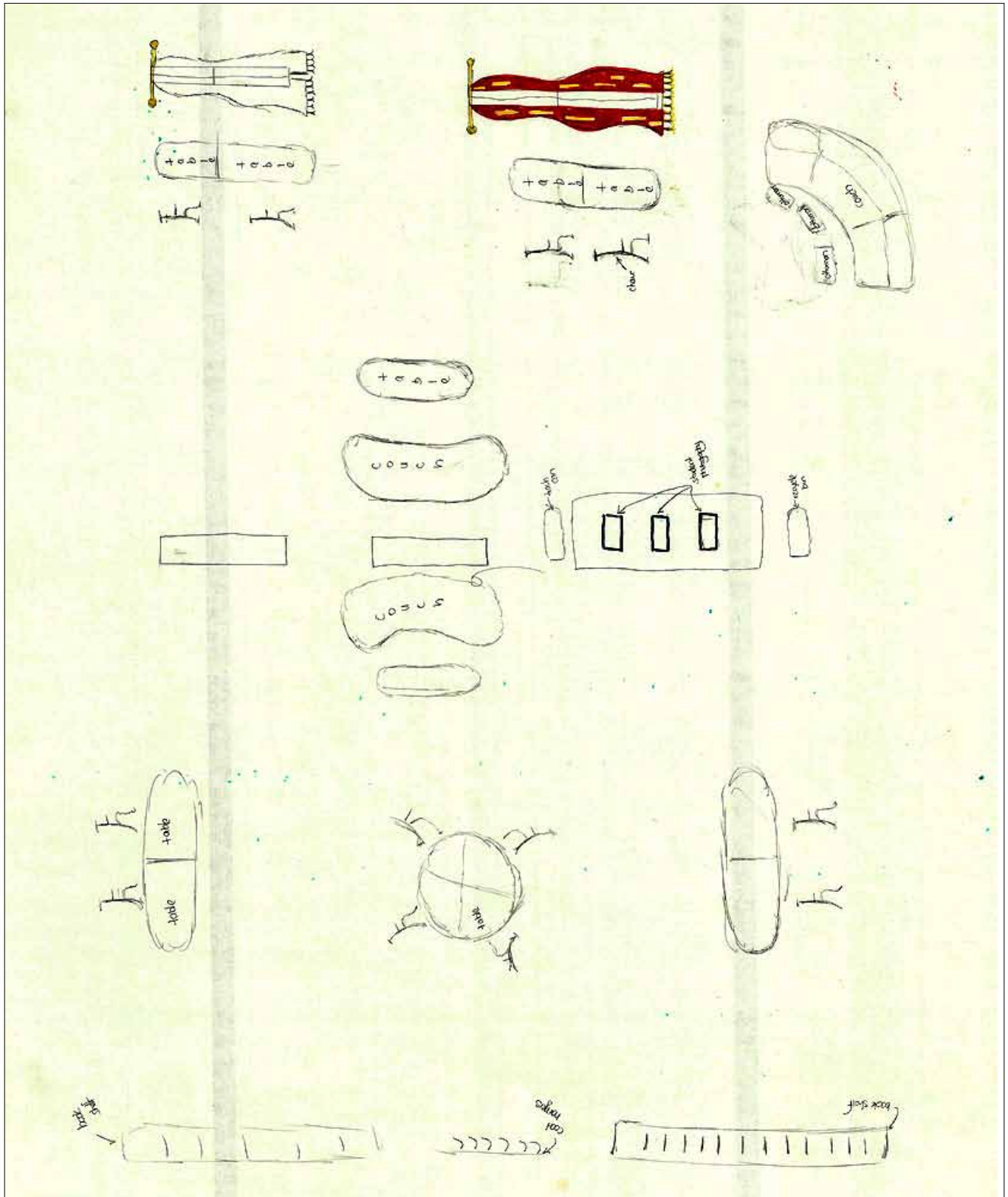
- Have power outlets in the floor or on the walls; do not add columns for outlets like in B30.
- Have a feel like the Philips Reading Room, a sense of seriousness of purpose.
- The renovated room should feel warmer than B30 (B30 feels cold, stark, and too bright); the renovated Larsen Room should feel warm and cozy.
- Both students and staff were eager to provide this feedback and offer input for what they would like in an ideal study and teaching space.

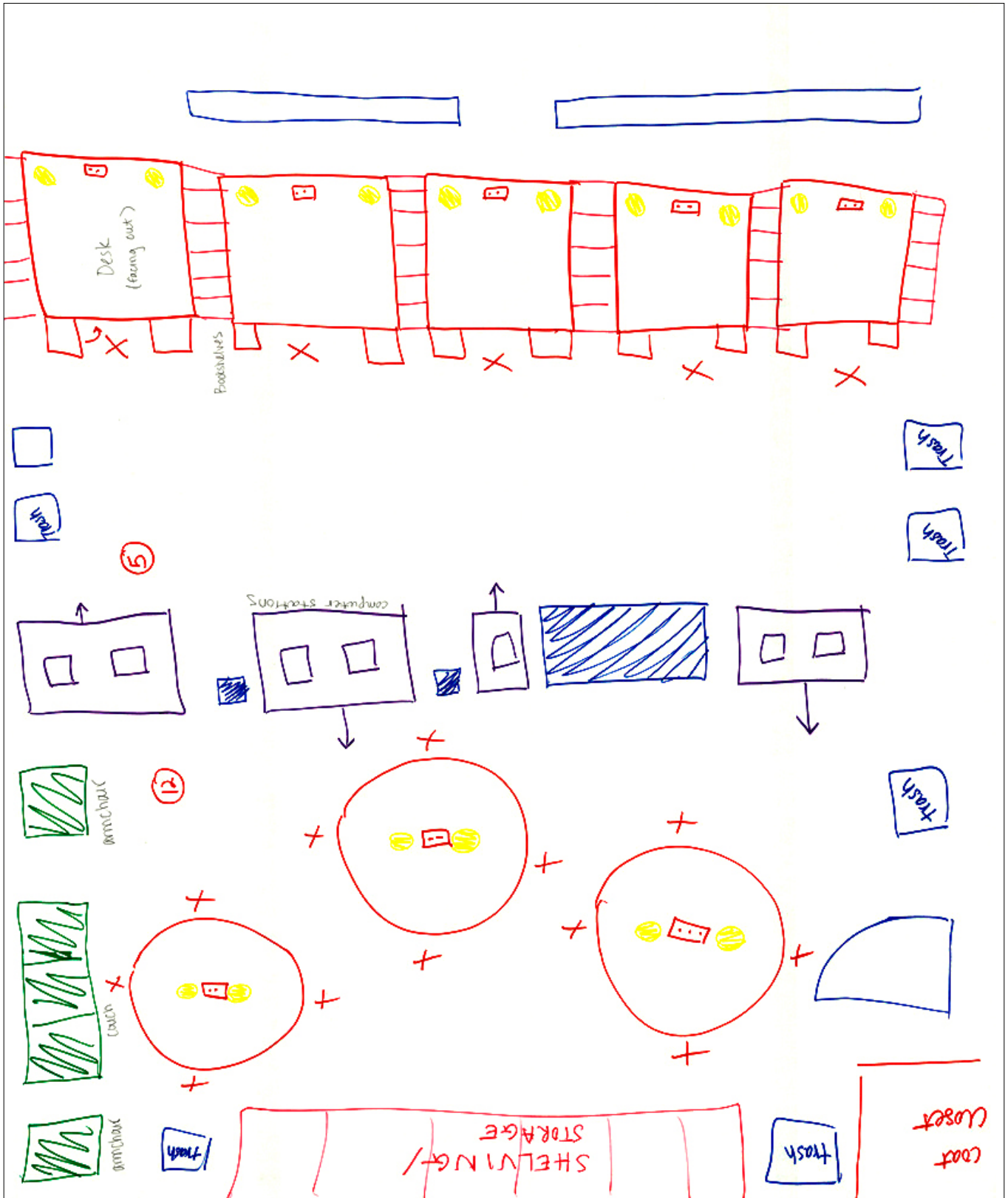
Student Drawings

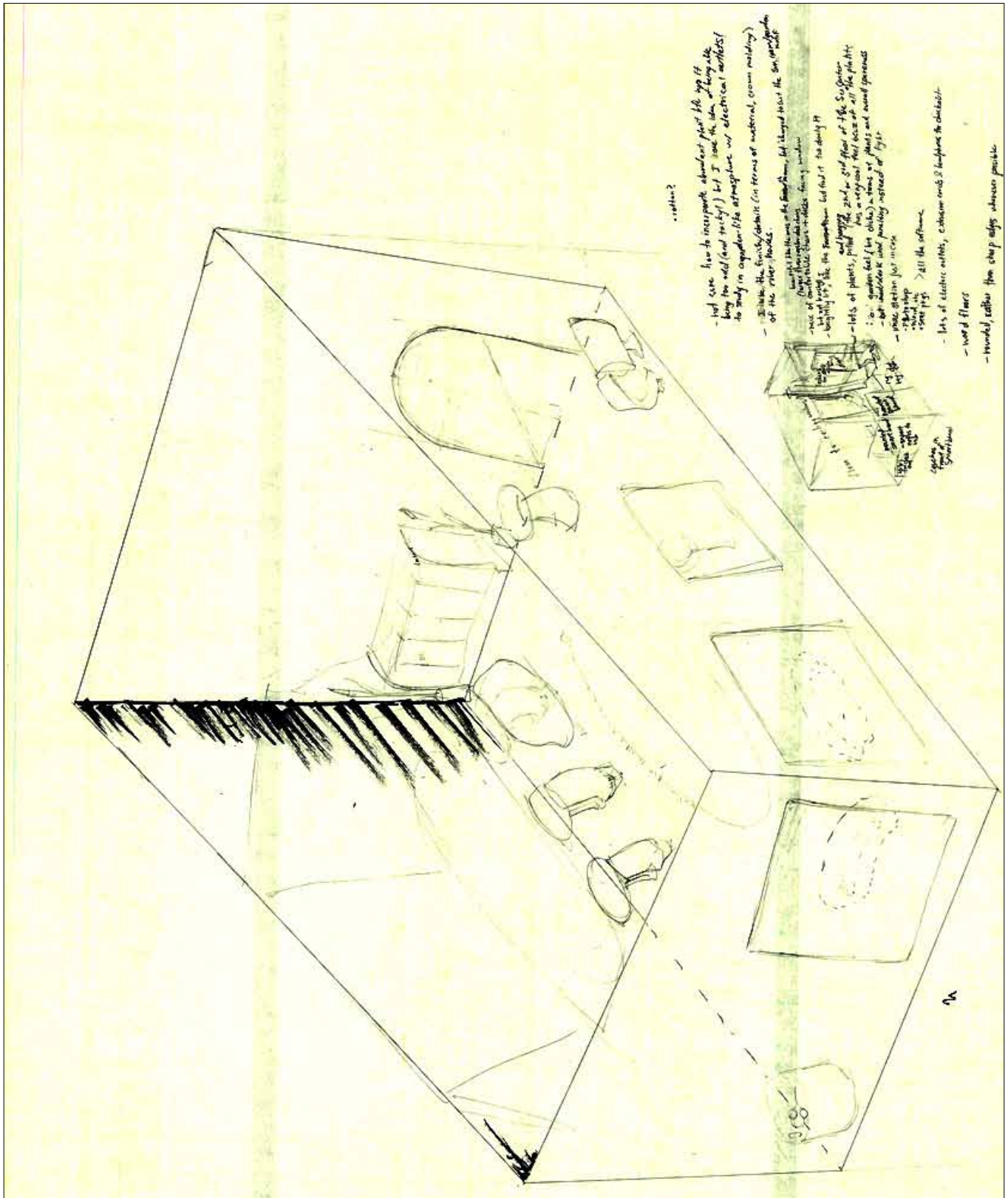
Following are the anonymized drawings done by the students during the participatory design workshop.

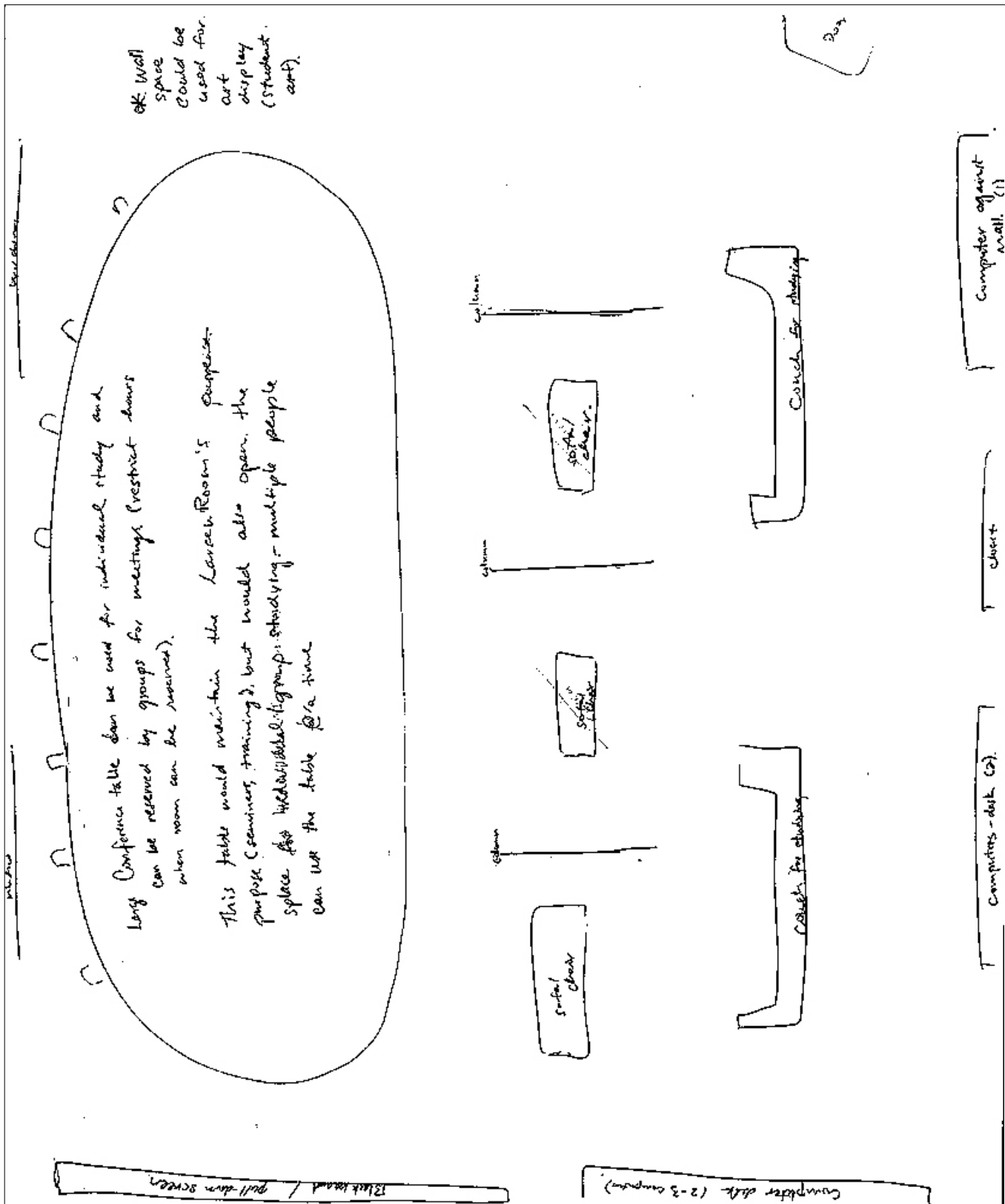


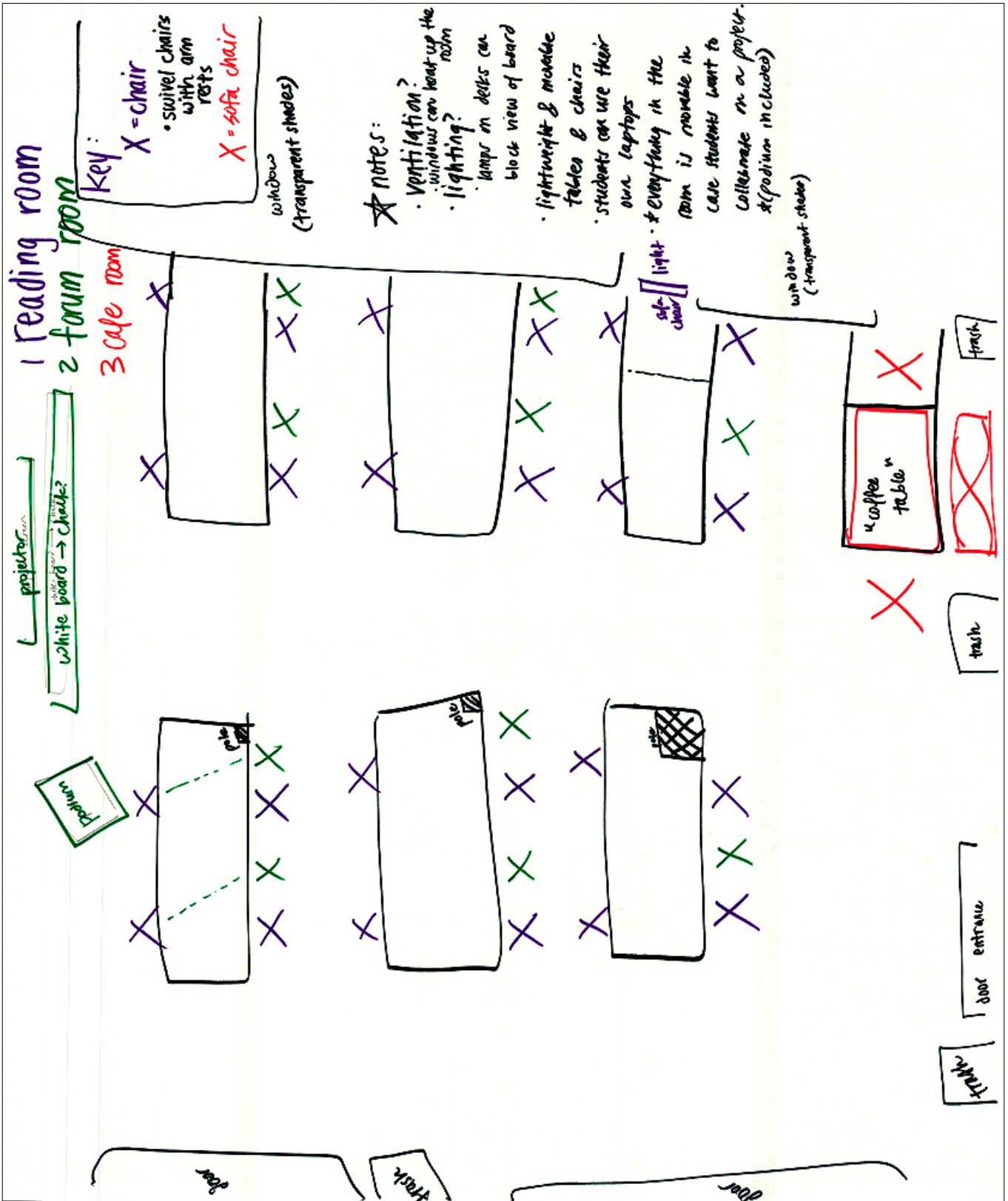




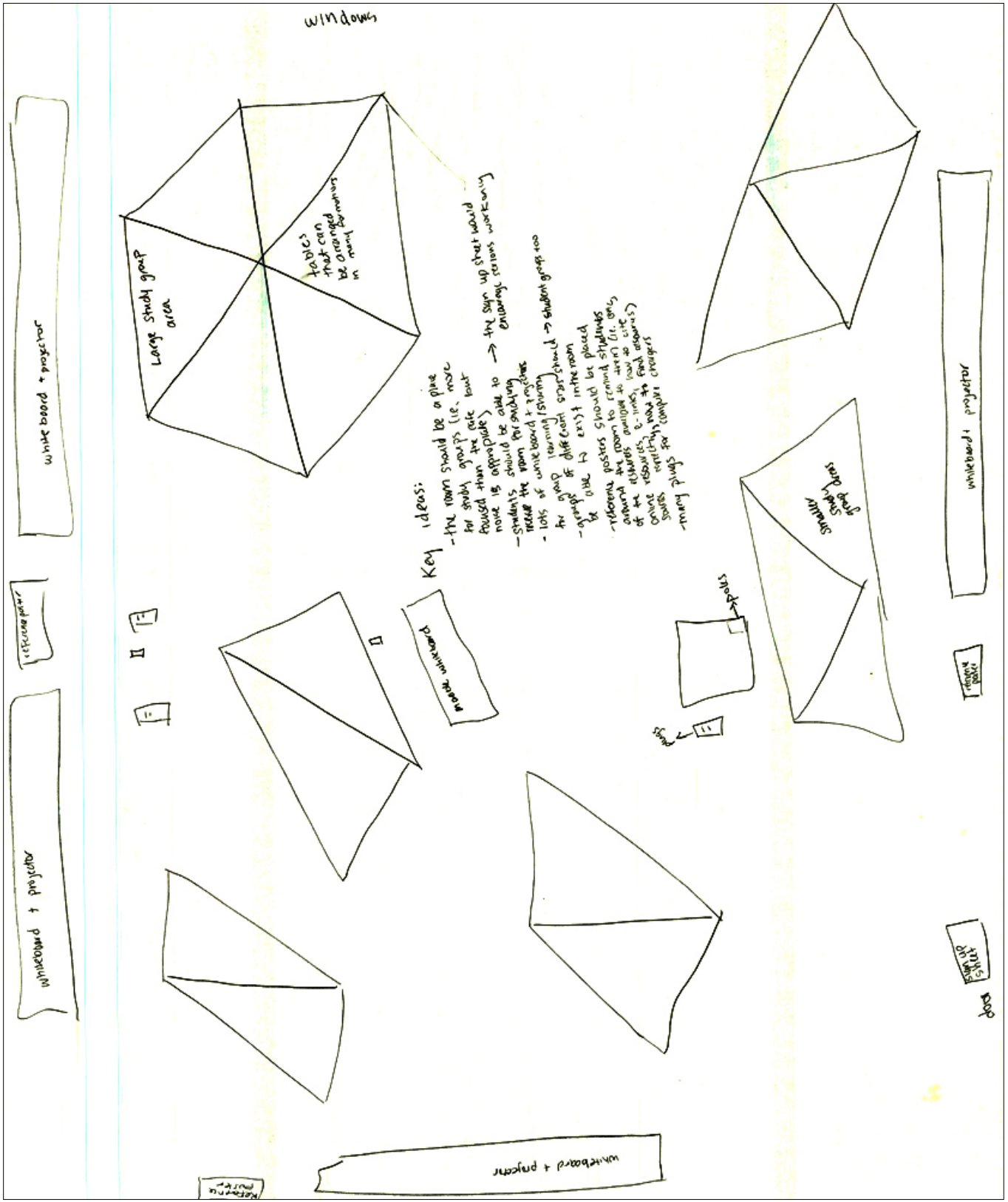








<p>Collaborative</p> <p>① <u>Meeting/Planning</u></p> <ul style="list-style-type: none"> • Digital Chalk Board - Records + Prints Notes • Meeting tables w/ mics • Computer Work Stations <ul style="list-style-type: none"> - Printer - Copy Machine - Phone/FAX 	<p>Lamont</p> <p>③ <u>Lounge</u> (Cafe Extension)</p> <ul style="list-style-type: none"> • Silent reading room w/ couches + space for laptop stations • Food + drink allowed • Flat Screen TV (mounted w/ 24 hour News Coverage) 	<p>Multi-Media</p> <p>② <u>Production Studio</u></p> <ul style="list-style-type: none"> • Green Screen • Interview Space • AV Production Recording • Training
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From Concept to Implementation

DEBRA KOLAH, *User Experience Librarian, User Experience Office, Rice University*

Introduction

The work of the User Experience (UX) Office at Rice University combines three approaches: (1) doing ethnographic and observational studies, (2) conducting usability tests, and (3) creating compelling experiences.

Collaborating with librarians in other departments throughout the library, we use the data to help inform decisions about current and future library services.

Our usability testing informs the development and maintenance of our web and mobile interfaces. The studies tend to be short and intensive, taking place over 6 to 15 weeks. We rely heavily upon the methodology of Nancy Fried Foster and Andrew Asher.¹

This presentation looks at examples of four recent studies and one ongoing study, and summarizes what we have learned to date.

Recent Studies

In the past two years, the UX Office has undertaken the following four user experience studies.

1. *Establishing fondren@brc: Insights from a User Study* (June 2010-August 2010). This was a satellite library on campus, open from October 2010 to August 2012.

- Two Fondren staff members interviewed three faculty members, four graduate students, and a library liaison to inform service decisions at a new library location: the BioScience Research Collaborative (BRC).

¹ Find more information on the UX Libguide at <http://libguides.rice.edu/ux>; and the UX department page at <http://library.rice.edu/about/departments/user-experience-office>.

- The project was included in the recently published ARL Spec Kit on Library User Experience.²
- As part of the study, a great deal of citation analysis was also done analyzing whether Fondren owned the journals in which faculty members publish at the BRC. Additionally, some cost/benefit analysis was done to determine if it was better to obtain journals not owned by Fondren via interlibrary loan or to purchase them. At the time of the report, interlibrary loan services were determined to be cheaper, but researchers often had to wait longer for the materials.

2. *Usability Testing on the New Fondren Website* (April 2011)

- Semi-structured testing was conducted with two undergraduates, two graduate students, one postdoc, and three library staff members over a three-week period with two Fondren staff members.
- Problems were identified, especially with the e-journal portal.
- Interviews were transcribed, and a new innovation, color-coding, was used to help the project team more easily communicate information from the study to department heads and others who might be interested. The color codes were: pink (good kudos), red (searching), green (service implications), yellow (problems), and light blue (user suggestions).

3. *Discovering Discovery: How Researchers Find the Sources They Need* (a study to help inform the process of deciding upon a discovery layer tool, April-May 2011)

- This project was conducted on a tight timeline. The research instrument was approved on April 5, interviews were held from April 18-28, transcription and coding took place from May 2-13, and the final report was submitted to the Fondren Library Resource Discovery Tools Working Group on May 18.
- Semi-structured interviews were conducted with two faculty members, four members of a non-departmental academic team, one postdoc, and five research analysts.
- A summary was generated before the report was completed to help the research team start to group findings. The broad categories were: One interface to search for everything, Interdisciplinary, and Specific/targeted searching.

4. *Research Flow* (July-September 2011)

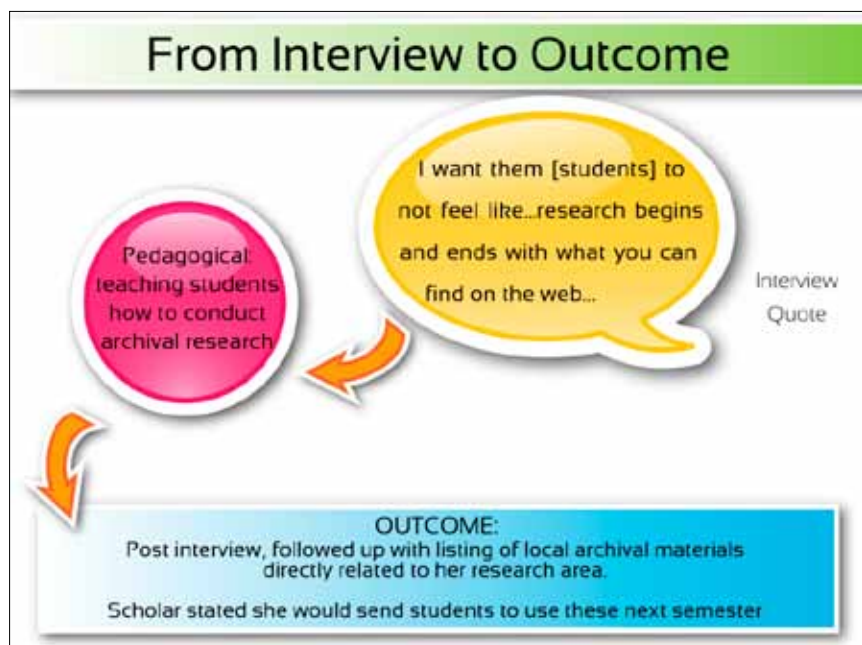
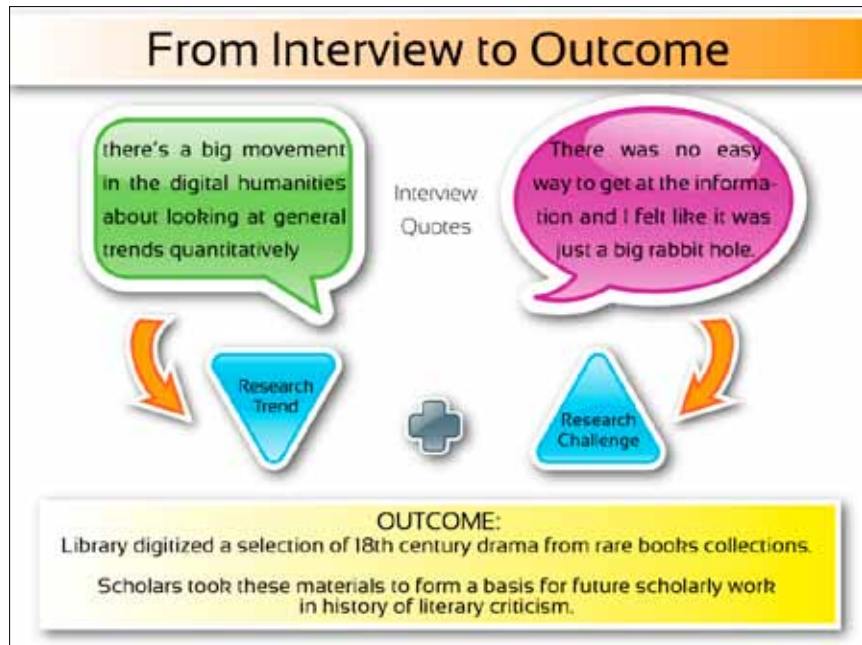
The purpose of this study was to look at the flow of research from the initial generation of an idea through gathering information, applying for grants, evaluating information, writing, organizing, publishing/sharing/presenting, archiving, citing, and protecting intellectual content. Additionally, we explored how a team of librarians, led by the UX office at Fondren, could take a collaborative approach to learning ethnographic methods to inform information gathering.

²Available at <http://www.arl.org/news/pr/spec322-26july11.shtml>

- The guided research team consisted of 10 librarians, all of whom had participated in Nancy Fried Foster's training session at Rice in January 2011.
- Some videotaping of interviewees was done.
- The IRB Protocol was approved on June 9, 2011. Fifteen faculty interviews were conducted, and the research project was completed in Fall 2011.

Discussion

Several interview comments have led to service outcomes, as illustrated below.



Another positive outcome of the ethnographic work being done is the richer, more engaged experience of the librarians with the users—especially at a time when physical use of the library is down—and even among different departments within the library. As one librarian participant noted:

I think this sort of (ethnographic) work also helps open communication avenues between librarians from different departments and builds awareness of the different activities or services available from different departments in concrete ways, which I think facilitates future collaboration.

In an exit survey conducted in the Research Flow project, each of the ten participating librarians were asked to identify one thing they learned from the project. Their responses included the following:

- “That even simple questions can bring out a complex response with many layers to explore in coding”
- “How happy folks are to be interviewed and to share their processes”
- “How diverse the interviewees’ research interests are”
- Forty percent of the librarians conducted interviews—a rich source for building skills working directly with researchers, and learning about their work
- Technical aspects of the interview engaged 37.5 percent of the librarians; tasks included running an audio recorder, videotaping, or dealing with the digital media files of the project
- Librarians stated that the hardest part of the project was transcription (4 respondents), coding (2 respondents), interviewing (2 respondents), using the equipment (1 respondent), and finding time to do the project (1 respondent)
- Librarians stated that the best part of the project was the interview (7 respondents), service implementation from user comments (1 respondent), using the equipment (1 respondent), and working with the librarian team (1 respondent)

Ongoing Study: iPad and Mobile Device Usage

We are interested in how researchers are using iPads and other mobile devices in teaching, research, and daily activities, and how their use changes over time with individual and group opportunities for learning. Consequently, we are conducting a study that seeks answers to the following questions: Are our users going to use our ebooks? Do our users want us to buy more e-content? And are our users struggling with our existing mobile resources?

In January 2012, a group of 12 faculty and 5 executive-level library staff members each received an iPad. They were encouraged to attend twice-monthly training sessions to become more familiar with the device. Participants spent the first half hour of each session learning a concept that would help them use the device in teaching, learning, and everyday life. The second half hour was spent sharing their experiences and lessons with the group. The sharing has been very

beneficial and has served as a safe space for faculty to discuss mobile technologies, including problems and successes.

One or two applications were taught each session, focusing on free tools or library resources that enhance teaching and productivity, such as Films on Demand, Evernote, Educreations, Dropbox, and Skitch. The demonstrations were geared to help participants become familiar with the mobile device itself and to explore applications on the market.

During the summer of 2012, study participants received two emails from the research team with articles on teaching and researching with iPads, as well as news of recently developed apps of potential interest.

Some faculty members are keeping brief diaries about their experiences teaching, learning, and using the iPad. We have already seen examples of how faculty members have embraced the mobile power of the device: one faculty member wrote a book chapter and uploaded it to iTunes. Another carried the iPad to a conference abroad, leaving her laptop behind. She had a very successful presentation with her iPad, and found it easier to plug and play than the laptop, which sometimes gave her problems with cables and screen resolutions.

In the fall, the author, a member of the research team, will be doing site visits to view professors using iPads in the classroom and will conduct one-on-one interviews to learn more about how faculty members are using the device. The pilot project will end in December 2012 and discussions will then take place as to whether to continue the research with another group of participants.

As we learn more, we will use the information to inform how Fondren Library provides ebooks, mobile information, and training. Research into the faculty experience of iPads will help Fondren evaluate the impact of mobile technologies on the academic library experience of both faculty and students. The research will also guide future enhancements for our mobile library website, and for library-related applications that Fondren Library might wish to develop.³

³ The project Libguide, with the resources taught in the training sessions, is located at: <http://libguides.rice.edu/ipad>. Additionally, a LibGuide on accessing Fondren ebooks is available at: <http://libguides.rice.edu/ebooks>

Design Your Ideal Study Space

SHEREE FU, Research and Development Librarian, Claremont Colleges

Introduction

In early 2011, the Claremont Colleges library staff invited 15 students to think about and then draw representations of their ideal library study spaces. Thirteen undergraduate and two graduate students were supplied with large sheets of white paper, markers, and sticky notes to create their drawings. After the drawings were completed, the library facilitators interviewed each of the students, reviewing each of the drawings and asking for clarifications and notes. The library staff found similar ideas and themes in all the drawings.

Findings

The students' top five recommendations included:

- Lighting should be adaptable to an individual's needs: local and area, natural where possible, not fluorescent.
- The library should have separate spaces for quiet and not-so quiet study with flexible (mobile) furniture.
- The library space should have artwork (graphics, objects, and so on) that is inspirational.
- The library space should have natural elements such as plants and the feeling of bringing the outside inside.
- Students would like to see more drinking water (and water bottle) stations in the library.

Results

These findings drove the start of a major library renovation project. Unfortunately, that project ended at the floor plan drawing stage. The actual changes at the library have been more subtle than new

construction or building renovations. For example, a new water bottle fountain replaced an aging water fountain in a heavily trafficked library area. In addition, the library hired a firm to conduct a lighting audit and replace bulbs for more natural-looking light. In summer 2012, a small committee comprising library staff members revisited the drawings as they selected new furniture that would enhance student experiences and increase seating.

Participatory Design for Canaday Library—A First Floor Renovation

MELISSA CRESSWELL, *Director of Planning and Communication, Information Services, Bryn Mawr College*

ERIC PUMROY, *Director of Library Collections and Seymour Adelman Head of Special Collections, Information Services, Bryn Mawr College*

Project Overview

This paper is an interim report on a project to gather information about student use of Canaday Library at Bryn Mawr College and student opinions of how they would like to be able to use the library in the future. This information is being gathered using participatory design methodologies and is intended to inform renovations to the first floor of Canaday. At the time this paper was written (May 2012), data collection was complete and analysis had begun and would continue through Fall 2012.

Bryn Mawr College is a small, liberal arts college near Philadelphia, Pennsylvania, with 1,300 full-time equivalent undergraduates representing 45 states and 62 countries. Four hundred graduate students currently comprise the College's Graduate Schools of Arts and Sciences and Social Work and Social Research.

Canaday Library was built in 1969 and is the main library on campus. The first floor, by far the most heavily trafficked, is home to the circulation desk (fig. 1), the reference desk, the computing help desk (fig. 1), a computer lab (fig. 3), an exhibition space, the Writing Center, the reference collection (figs. 1-3), current periodicals, popular fiction, and a variety of staff offices. The seating and work space ranges from tables with computer workstations (fig. 3), to empty tables and clusters of soft seating (fig. 2).

Timeline and Planning

The College is planning a capital campaign that is likely to include renovations to Canaday Library, particularly the main public floors, among its fundraising goals. A participatory design project was conceived in fall 2011 to help inform the planning process, but the need to accelerate the project became evident in late fall when the



Figure 1. Canaday first floor Circulation (L) and Computing Help (R) desks



Figure 2. Canaday first floor work and seating areas



Figure 3. Canaday first floor computer lab and reference collection



College hired an architect to scope a renovation project. Longitudinal data from the Managing Information Services Organizations (MISO) Survey¹ had already told us that the library as a space has become increasingly important to students and decreasingly important to faculty. With student input as top priority, we attended participatory design workshops hosted by the Council on Library and Information Resources (CLIR) in September and December of 2011 to learn ethnographic methods for gathering input into the design process.

The timeline for this project (fig. 4) is relatively short. The detailed project description and sample instruments required by the College's Institutional Review Board (IRB) accelerated the planning process, and the project was approved in an expedited review in February 2012.

¹ <http://www.misosurvey.org/>

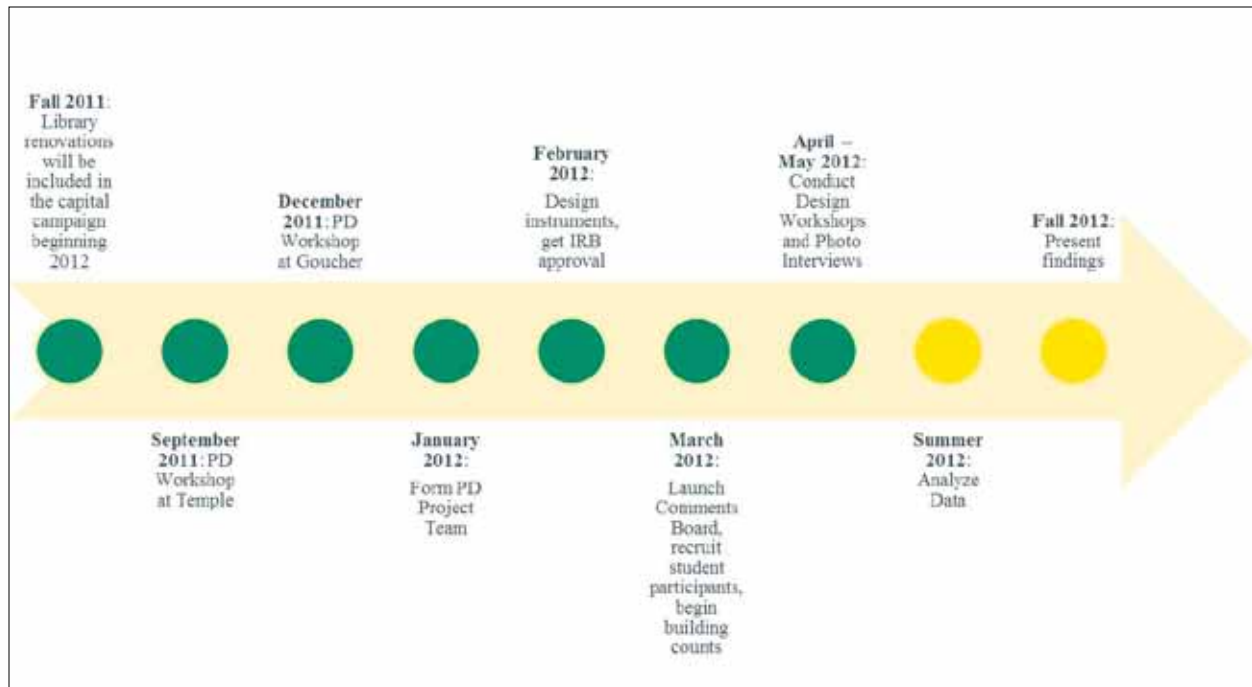


Figure 4. Participatory Design Project Timeline

Methods

In January 2012, we recruited four colleagues to join the project team and chose four methods for collecting data. We used a blanket email to recruit students for design workshops and photo interviews. During April and May, seven students participated in photo interviews, and ten students participated in design workshops. Each was compensated with a \$25 Amazon gift certificate. A combination of project team members and student employees videorecorded these conversations using Kodak Zi8 Pocket Video Cameras and tabletop tripods. Further information about the project team and instruments used is available on the project website.²

In addition to the photo interview and design workshop, we mounted a comment board (fig. 5) as an easy, low-investment way to gather casual comments from library users. We publicized the board, which hung in Canaday from spring break through graduation, with posters across campus (fig. 6) and on the Information Services Facebook and Twitter feeds. We collected more than 380 comments, approximately 60 of them unique, and all have been transcribed by a student employee in preparation for analysis.

We also wanted to gather quantitative data on how the library is being used to help us understand and flesh out what the students were telling us through the comment cards and interviews. For about six weeks, from shortly after spring break until the end of finals week, we had circulation student workers count the number

² <http://www.brynmawr.edu/is/canadayrenovation.html>

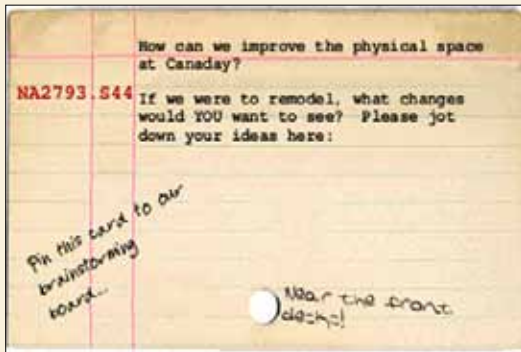


Figure 5. Cards used for posting to the comment board



Figure 6. Poster advertising comment board

of people on each floor several times a day, every other day. The guidelines for the count were set up to answer a number of questions we think are critical for understanding how students use the building. Specifically, we wanted to know who uses the building, how the use changes over the course of the day and evening, where students work, how often they engage in group work, and the percentages of students using their own computers, the library's computers, and no computers.

Preliminary Findings

The last of the photo and design interviews were completed in late April. Most of the findings were not surprising: students want more natural light, big tables where they can spread out their work, private group study spaces, more comfortable furniture, plants, color, and, more broadly, space for both social interaction and quiet work, and the ability to study alone, but with others. We also had some surprises. Many students don't have or want the latest gadgets; few students mentioned coming to the library for books, although they expect them to be here; and there is very little active use of the study carrels on the upper floors. Instead, almost all of the activity is concentrated in the two areas where the computers are located.

Because the data collection was only recently completed, the analysis of it is only just beginning. Over the next two months we will be reviewing the interviews and comment board notes to identify major themes, and we will code the videos with NVivo. The building counts were done by hand and they are still being entered

into an Excel spreadsheet, but once that work is completed, we will develop queries to extract the critical data. Later this summer we will share the preliminary findings with the rest of the Information Services staff for comments and discussion.

Lessons Learned

Even while the study was in its early stages, discussion about the scope of library renovations was going on within the College, which meant there was a need for us to report findings as early as possible. Because we had used multiple methods to gather student thinking about the library, we were able to triangulate among the results to offer observations with a reasonable degree of confidence.

We have come to appreciate how quantitative data can help inform the gathering of qualitative data. Because of the time pressure to conduct the study this spring, we did both the building counts and interviews simultaneously. We wish now that we had done the building counts earlier, because they told us that the quiet study floors were almost completely unused in the evenings, something that we had not understood, and therefore did not pursue in the interviews. Now we are considering a follow-up project, probably this fall, consisting of either photo or video interviews and design workshops focused on quiet areas, so we can get a better idea of why students find them unattractive and what could be done to make them more usable.

Finally, we found that the project has been valuable even if there are no major renovations to the building in the next few years because it has given us a much sharper view of the students' academic life and how the library figures in their work. We now know that there are some important changes we need to make in the building to make it a better student space, and whether those changes are big or small and incremental, they will be made.

Reprogramming McKeldin Library

JANE WILLIAMS, Senior Administrative Librarian, University Libraries, University of Maryland

Overview

Journalism professor and chair of our University Library Council Ira Chinoy talks about what he terms “institutional molasses,” which I take to be a statement about how long it can take to get things done in the academy and elsewhere. The University of Maryland Libraries have experienced this molasses in more than one project but the takeaway is to keep up the effort—witness the Terrapin Learning Commons and now the redesign project for McKeldin Library.

Theodore R. McKeldin Library, the largest of the university libraries, was built in 1958 and since then has undergone numerous small and large renovations and additions. Despite efforts to respond to the needs of library users, the work has been piecemeal, and the result is a 320,000 square-foot building that is impressive from the outside but anything but grand on the inside. There are major problems with way-finding, circulation of patrons, aesthetics and comfort, mechanical systems, differentiation of spaces and noise levels, and so on.

For the often-stalled project of redesigning McKeldin, there was a confluence of players, timing, and opportunity that occurred in July 2011, when Nancy Foster, director of anthropological research at the University of Rochester’s River Campus Libraries, came to town and shared a podium with Sandra Vicchio, a principal with Ayers Saint Gross architectural firm in Baltimore. They reviewed the objectives, techniques, and findings of the seminal ethnographic work done at the University of Rochester (UR) and its application to a renovation of part of UR’s Rush Rhees Library.

Over lunch with Nancy, Sandra, Dean of Libraries Pat Steele, Architecture Dean David Cronrath, Anthropology Professor Michael Paolisso, iSchool Professor John Bertot, and me, ideas sprouted into

McKeldin Library

The need for redesign

The Terrapin Learning Commons

University of Rochester
 Ayers Saint Gross Architectural Firm
 University of Maryland

Libraries
 School of Architecture,
 Planning and Preservation
 Anthropology Department
 iSchool

The players

Nancy Foster
 Sandra Vicchio
 Pat Steele
 David Cronrath
 Michael Paolisso
 John Bertot

a multidisciplinary effort—much of it led by students—to reprogram McKeldin Library with input from hundreds of stakeholders.

Fall 2011

The effort first imagined at that July lunch became three sets of activities, launched in Fall 2011 and described below. The activities were to inform design work by seven graduate students in an Architecture Studio to reprogram McKeldin Library.

1. The UMD Libraries' Participatory Design Project Team had 12 library staffers, trained and advised by Nancy Foster. That team divided into sub-teams to do on-the-spot interviews with undergraduates,¹ structured observations of eight spaces in this building, and design workshops where participants—teaching faculty, undergraduate and graduate students, and library staff—were asked to draw their ideal library spaces.
2. The second set of activities was conducted by graduate anthropology students in a methods class who observed and interviewed University of Maryland students about their “schoolwork,” use of McKeldin Library, use of resources in connection with their schoolwork, the obstacles and constraints they encounter, and the ways they hope the library might meet their needs in the future. This was their sole and semester-long assignment!
3. The third set of activities was conducted by graduate students in architecture who inventoried space currently available in McKeldin for administration and offices, circulation of patrons, instruction, lounge, stacks, study, study services, utilities, and storage. They also annotated and color-coded floor maps according to these categories and conducted interviews of library leaders to elicit future needs and visions for the building. This data enabled students in the subsequent design studio to compare and quantify how their designs would affect the use of space in a redesigned McKeldin Library.

Themes in Findings

The following provides a taste of our findings from all three sets of activities, plus the students' subsequent design work, which will be published in a book planned for 2013.

In the library, faculty, students, and library staff collaborate and socialize. They study, eat, and drink. They engage in silent and still study and work. In the library, these individuals also want to read, think, and write. They want to connect with collections, with their disciplines, and with nature. They desire to collaborate, converse, and build community.

Observations and interviews conducted by the anthropology class revealed that students seek convenience, comfortable environments, and an ability to personalize their experience. Students need

¹See “On-the-Spot Interviewing: Quick and Easy Tool for Collecting User Data,” by Patricia Kosco Cossard, pp. 20–23 of this volume.

various types of spaces and amenities. They want control over their space. Internet access is important to students but can be distracting. Finally, the needs of undergraduate students are different from those of graduate students.

Bridge

An important link from the fall 2011 information-gathering work to the spring 2012 design work done by the Architecture Studio students has been the Stakeholders Group, formed in January 2012 and chaired by Dean Steele. It is made up of campus officials from the Provost's Office and from Facilities Management; the deans of the College of Arts and Humanities and the School of Architecture, Planning and Preservation; members of the teaching faculty; and student and library representatives.

The stakeholders have met now several times with the Architecture Studio students to view and react to designs. We began by discussing the vision of the redesign and what it can mean for the university, specific goals and objectives for the project, stakeholders' thoughts on the fall 2011 work, and preliminary observations from the students and the stakeholders.

Articulation of the Work with the Architecture Studio

The fall 2011 information-gathering was essential for the seven students in the Architecture Studio to know what users and potential users of this building do in these spaces and what they need and want to be able to do in these spaces. The stakeholders further bring their knowledge of the fall 2011 work when we meet with the students, review draft designs, give feedback, ask and answer questions, and talk informally among ourselves and with the students.

We in the stakeholders group first saw four concepts, then three, and, most recently, two. Books and natural elements are in every design; so are multi-story "slots" or walkways, and new and different entrances, to name just a few. The only thing that will not change is the front of the building facing the historic mall. The architecture students have seemed energized by having an actual client for their studio, and the stakeholders have certainly been energized by the architecture students' creativity and growing skill. It's been a wonderful synergy.

So what's next? By the end of this summer Architecture Dean Cronrath will have an estimate and a staging strategy for the University Libraries, based on the selected design. Then will come the fun part—raising visibility, support, and awareness on campus for this effort and the funds for it. Obviously, it's a 10- to 20-year effort, but it is indeed underway!

Lessons Learned for the Library Segment of the Design Project

Members of the library participatory design project team learned some lessons that we hope will be useful for future work.

We needed to leave more flexibility in the IRB agreement so we could make minor wording or exercise changes. Everyone engaged in this type of effort needs to figure out well in advance which audience is wanted for each activity (for example, range of majors, graduate/undergraduate, faculty, library user/non-library user, campus location, in-library location, how many individuals in each selected category, and so on) and identify the best ways to recruit that audience. Allow time for more than one round of recruitment efforts, if the initial one doesn't provide the audience you need or want.

Figure out well in advance the time of the semester for data collection. Do preliminary testing of codes for recording the structured observations of what students were doing in library spaces to see what works and what doesn't. If you are unfamiliar with ethnographic studies, seek the help of an experienced ethnographer.

Several pointers about the project team itself: Build a research team with a variety of disciplinary backgrounds whose members will have unique perspectives on the data collected. Make sure all team members are committed to the study. Keep the team to a manageable size.

APPENDIX

Evolution of the Participatory Design Workshops

NANCY FRIED FOSTER

The first CLIR workshop emerged from planning conversations with Alice Bishop of CLIR and from collaborative work on a NITLE-sponsored project led by Michael Roy. It was held at Wesleyan University in Middletown, Connecticut, in February of 2007. It began on a Sunday evening and concluded the following afternoon. Participants in that workshop began by going out to do observations in the Middletown community and then met over dinner to discuss what those observations meant and what they had learned. On the second day, participants in the workshop observed a demonstration interview with a Wesleyan faculty member and then broke into small groups and went to faculty offices to conduct their own interviews with professors of cultural studies, art history, history, and anthropology. After conducting the interviews, the small teams developed brief reports and presented them to each other. Following the reports, participants received brief exposure to data analysis and interpretation, concept development, and implementation of findings.

After the workshop at Wesleyan there were additional, expanded workshops on faculty research behavior at Kenyon College; University of California, Berkeley; Cornell University; George Washington University; Miami University; the Massachusetts Institute of Technology; New York University; the University of New Mexico; the University of Rochester; and the University of Washington. Interest in these workshops was great and we were gratified that CLIR sponsor institutions stood ready to host the workshops and to send people to attend them.

At the time that these workshops were rolling out, a team at the University of Rochester's River Campus Libraries was writing a book on participatory design and user research projects that they had

been conducting with undergraduates.¹ This book and subsequent presentations at professional conferences generated an enormous amount of interest in work pioneered at the University of Rochester's libraries on how undergraduates do their academic work; the kinds of spaces, technologies, and services that could support their work; and ways to help them take full advantage of their academic opportunities. Interest was so great that participants in the faculty research behavior workshops requested another workshop on studying undergraduates.

We rolled out this new workshop at New York University in November 2009 and presented subsequent undergraduate workshops at Occidental University, Rice University, the University of Rochester, and the University of South Florida. The undergraduate workshop included training and experience in conducting photo interviews, map interviews, and design workshops. It also provided an interactive session on asking good questions and analyzing data. Like the "faculty" workshop, the "undergraduate" workshop concluded with a structured planning session that enabled participants to plan a project that they could do when they got back home.

In 2010, CLIR received a grant from the Institute for Museum and Library Services (IMLS) for a program called "Leadership through New Communities of Knowledge," to provide professional development for library staff at smaller private colleges. As part of this program, CLIR coordinated an introductory workshop for CIC institutions on user research and participatory design. The first such workshop was offered at Rollins College, a second at Westminster College, and a third at St. John Fisher College.

After providing faculty- and undergraduate-focused workshops for several years we reorganized the workshops into a new series that included some of the most successful components of the previous workshops but in a new format and with added material. The new series includes an introductory workshop and an intermediate workshop on participatory design of academic libraries. The first introductory workshop was offered at Connecticut College in April 2011 and was subsequently offered at Temple University and Pepperdine University. The introductory workshop focuses mainly on conducting interviews and includes an overview of participatory design, an "Interview Dos and Don'ts" session, and a discussion of the use of video in interviewing. The introductory workshop also includes a design workshop with undergraduate students. It concludes with a planning activity.

The intermediate workshop assumes that participants have already developed basic skill in conducting interviews. It provides an opportunity to conduct retrospective interviews with students and also includes two kinds of observations. This workshop adds tools to the toolkit for developing an overall research project. One such tool helps participants to ask the right questions in their project. The

¹ Foster, Nancy Fried, and Gibbons, Susan, eds. 2007. *Studying Students: The Undergraduate Research Project at the University of Rochester*. Chicago: Association of College and Research Libraries. Available at <http://hdl.handle.net/1802/7520>.

other tool allows them to plan the steps they must take to gather information and analyze it, interpret it, and then take steps to act on what they have found out. The intermediate workshop was introduced at Goucher College and has also been held at Pacific Lutheran University.

To date, there have been more than 250 participants in all of these workshops, and they have come from a wide range of institutions, including Allegheny, Bates, Denison, Rhodes, Vassar, and many other small colleges. Participants have also come from Columbia University, Cornell, George Washington University, Harvard, Ohio State, and other large institutions. Attendees have come from Occidental near the Pacific Ocean, MIT on the eastern seaboard, Rice University in the southwest, University of Miami in the southeast, and Carlton, Colby, and the University of Washington up north. In recent years, word of these workshops was spread by Susan Perry, formerly interim president of CLIR, to the American International Consortium of Academic Libraries (AMICAL). AMICAL subsequently offered two sets of workshops to help member institutions develop and implement their own participatory design projects, and this volume includes a paper about a project conducted at the American University of Central Asia in Bishkek, Kyrgyzstan.