Studying Students across Borders:
An Ethnographic Study of Research Behavior

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ABSTRACT

Librarians often feel that we understand the needs of our undergraduate users. Isn't is possible, however, that we make incorrect assumptions based on our perception of these learners? In 2009, representatives from four American style universities, the American University in Cairo, the American University of Sharjah, the Lebanese-American University, and the American University of Paris, conducted an ethnographic study on their respective campuses. These librarians undertook the project in order to learn more about how students use library and campus spaces for learning, and how they conduct academic research. For the mapping study, students marked a campus map as they moved throughout a typical class day, and then explained their movements in an interview with a librarian. In the photograph study, students responded to a series of prompts by taking a series of photographs and then described the significance of each in a follow-up interview. Librarians assessed the data and identified assumptions, surprises, and overall themes. Each library then developed action plans to address the needs of the users, and to make necessary changes. The study demonstrates the usefulness of ethnographic research in developing library policies and services. It also identified the differences and commonalities between individual students, and the specific cultures in which they are situated, both academically and socially.

Keywords: ethnography, undergraduate students, library spaces, academic research

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1.   INTRODUCTION

The Sixth Annual American International Consortium of Academic Libraries (AMICAL) Conference took place from Thursday, May 21 to Sunday, May 24, 2009 at American University of Armenia in Yerevan, Armenia. One of the keynote speakers was Nancy Fried Foster, Director of Anthropological Research at the University of Rochester's River Campus Libraries. Dr. Foster spoke on, "Using ethnographic methods to understand today's undergrads: methods and findings."

After the conference, Kathy Ray of the American University of Sharjah worked with Jeff Gima of AMICAL and the American University of Paris to develop a pilot study of students in three AMICAL member institutions in the Middle East: the American University of Sharjah, the American University of Cairo, and Lebanese American University. The University of Paris was later added for contrast. Note that the group of institutions in the Middle East was chosen because these institutions had the resources to participate, were logistically able to attend a workshop due to being located relatively close to each other, and were ready to move on an expedited timeline. The project involved the training of participants, using ethnographic research methods to gather data, analyzing and interpreting the data, and the sharing of results.

2.   PROBLEM STATEMENT

Librarians like to think that we understand our students inside and out – the research techniques they use, the learning spaces they prefer. But perhaps much of this is simply assumed, and not based on evidence? The purpose of this research project was to discover more about the ways that our students conduct research and use learning spaces, based on the results of multi-method ethnographic research. This study answers the following questions: How and where do students conduct academic research? How do they view and utilize library and other learning spaces? And what can librarians do to improve our resources and services in order to better serve undergraduate populations?

3.   LITERATURE REVIEW

In 2007, *Studying Students: The Undergraduate Research Project at the University of Rochester*, was published by the Association of College and Research Libraries. This project was developed to answer the question, "What do students *really* do when they write their research papers?," and used multiple ethnographic research methods to do so (Foster, *vi).* The study conducted by the AMICAL institutions was modeled on the University of Rochester study, and sought to answer the same question, as well as to discover more about how students use physical library spaces for learning and otherwise.

3.1   Library Spaces

It is apparent that this type of research is becoming increasingly popular in libraries. In fact, Hobbs and Klare conducted a larger scale ethnographic research project at Weslyan University Library, using multiple methods. In the photo voice portion of this study, they discovered that "each of the libraries on campus, and different spaces within each library, are judged [by students] to have their own 'personalities' conducive to different types of studying" (Hobbs and Klare 2010, 353). Applegate, in a study that began without a particular research question, utilized observation to find out more about how students use library "soft spaces, areas that are not the stacks and not computer labs: carrels, tables, soft chairs, and study rooms" (2009, 341). In fact, this is the only literature related to library spaces that addressed gender at all. In recent years, there has been much discussion about whether libraries even need to provide physical spaces anymore, as more and more resources become available electronically. Lin, Chen and Chang, however, claim that people will continue to use physical library spaces because they:

> Offer security, comfort and quiet;
> Are free and commercial-free;
> Provide a place to be with other people in a learning/cultural environment;
> Offer opportunities to learn, search, enquire, and recreate; and
> Afford opportunities for choice and serendipity (2010, 342).

In fact, librarians have recognized that the library has become an "'any time, any place' concept; the library can be defined as an abstract space, not a place" (Pritchard 2008, 222).

3.2 Photo Voice

Photo voice methodology is well suited to feminist research, because it allows participants to "record aspects of their daily lives from their own perspectives" (McIntyre 2003, 48), and to interpret the intentionally vague project instructions as they best see fit. Harper calls the practice, "a postmodern dialogue based on the authority of the subject rather than the researcher" (2003, 15), another reason feminist research works well with photo voice. Some research, such as McIntyre's, involves participants taking their own photographs and the reflecting on them individually or in groups. There are several other ways that anthropologists conduct photo elicitation, including using archival photographs to assist with the collection of oral histories. Some researchers utilize photos already in the possession of the interviewees, others take photos specifically for the purposes of the research project, with or without the input of participants (Banks, 2001).

Photo voice is sometimes called photo elicitation, and the elicitation part of this method can take several forms. Participants might engage in "photofeedback," in which they create analyze their own photos with written commentary, or the more common photo interviewing, in which a researcher conducts a semi-structured interview with the participant based on the photographs (Harper 2003, 14). Clark-Ibáñez notes that researchers must be particularly careful in conducting these interviews, and "strike a delicate balance between their goal of collecting data and retaining compassion for participants" (2004, 1517); viewing photographs can allow the researcher into spaces to which she would not usually have access.

4. METHODS

4.1 Training

The first step of the process involved training participants in the appropriate research methods. Nancy Foster was engaged to design a training workshop. All four participating institutions sent small teams to the United Arab Emirates in October, 2009, to attend the workshop at the American University of Sharjah. Participants included:

Institution	Participants
American University in Cairo (AUC)	Amanda Click, Coordinator of Instruction Engy Fahmy, Reference and Instruction Librarian Jayme Spencer, Director of Public Services
American University of Paris (AUP)	Michael Stoepel , Public Services Administrative Supervisor
American University of Sharjah (AUS)	Daphne Flanagan, Associate University Librarian Kathy Ray, University Librarian

| Lebanese American University (LAU) | Marie-Therese Alam, Reference Librarian |
| | Said Kreidieh, Reference Librarian |

The training workshop prepared the teams to conduct ethnographic activities focused on the use of library space. The aim of the training was to provide exposure and practice in the following methods:

- Observation

- Map diaries

- Photo interviews

Observation is a simple, no-cost method that allows for planned observation at pre-determined times in pre-selected locations. For the training, we conducted brief observations in several different locations in the University of Sharjah Library. In our debriefing, we talked about the use of different library spaces. We also touched on some of the local behaviors at the host institution that were similar to, or differed from, behaviors at partner institutions. For example, we saw greeting behavior among male students that was more prevalent and more stylized than at other AMICAL institutions.

Map diaries are another relatively low-cost activity. For a map diary, a student agreed to map his or her movements through campus (or through the city in which the institution is located) on a day on which s/he has at least two classes. Students were directed to mark the place on the map where they wake up, and note the locations, arrival times and departures times for all movements until going to sleep at night. In a follow-up interview, we learned where the student conducted academic activities, including going to class, studying, completing homework assignments and working on papers. We had the opportunity to learn why student select certain places for academic work. This information helped us think about the current and possible future qualities and affordances of our libraries.

Photo interviews are a slightly more costly method in which students are supplied with single use or digital cameras and asked to take a set of photographs. Photographs may include such shots as…

- The computer you use in the library, showing its surroundings

- All the stuff you take to class

- Something that you would call "high tech"

- A great place to study for a test or a quiz

In a debrief interview, we asked students questions about the items in the photographs and learn more about how they do their academic work and how their academic work fits into their lives in general.

5

The workshop concluded with a brainstorming session in which participants learned techniques for analyzing and interpreting data, and with a planning exercise in which they plotted the steps they would take when they returned to their home institutions. As stated above, the focus is on the library as a special space, so the teams planned how they could use the methods they used to investigate the use of their library spaces and devise implementations to improve their spaces.

4.2 Data Gathering

After the workshop, one of the participants, Amanda Click of AUC, created a Google Group for the project. Via the Google Group, participants shared information and refined the research instruments. A final set of protocols was posted to the group and each site team proceeded to conduct map and photo interviews. Data gathering reports for all participating institutions follow.

The American University in Cairo

The AUC team conducted eight interviews for the mapping study with student volunteers. Three of the participants were male and five were female. These students represented majors from all over campus, from psychology to computer science, Egyptology to mechanical engineering. In addition, the group was comprised of students from all four years, freshmen to seniors. The student volunteers were provided with a map of the campus and an explanation of the project. After completing one day of mapping they returned to meet with a librarian. Amanda, Jayme and Engy made an effort to have two librarians present for each interview, although this was not always possible. Students were recorded explaining their maps and answering questions.

For the photo study, the librarians interviewed nine student volunteers. Again, these students represented all four years and various majors of study; the group was made up of seven females and two males. The process was the same as the photo study and students returned with photos to take part in a recorded interview. All interviews were transcribed by the Public Services department assistant.

American University of Sharjah

Three AUS librarians participated in the research project; they were Kathy Ray, Daphne Flanagan, and Paula Deakin. Eighteen students were recruited in total, with 10 completing the mapping exercise and eight undertaking the photo study. The students who volunteered represented most academic areas on campus and came from the College of Engineering, College of Arts and Sciences, College of Art, Architecture and Design, and the School of Business and Management. There were 10 females and eight males; some were living on campus in residence and some lived off campus. The group included students from all four years of the undergraduate program. The recruited students were offered a food voucher as an incentive to participate. They were given the research protocols prior to completing the activities and were given detailed verbal instructions as well.

After completing the exercises all students were interviewed by two of the researchers. One researcher asked questions about the activity and the other researcher made detailed notes.

Lebanese-American University

The LAU team, made up of Marie-Therese Alam and Said Kreidieh, recruited 10 undergraduate students for the project, five males and five females. They were selected to represent a wide selection of disciplines. For cultural diversity, the selectors also made sure to recruit from the two most highly represented religions on campus, Islam and Christianity.

Although it would have been more practical to meet with the students in one group, the researchers met with each student separately to make sure they fully understood the process. The purpose of the project as well as the mapping and photo activities involved were explained. It was made clear to all the participants that their engagement in the study was voluntary and that they were free not to participate or to withdraw at any time during the process and for any reason. Each student was provided with a map of the campus along with an explanation of the steps involved. Following the mapping process, one librarian and an assistant met with each student and learned more about his/her activities during that day. The same process applied for the photo activity. The interviews for both map and photo activities were then transcribed by the assistant.

American University in Paris

Data gathering took place at AUP during the 2009 Fall Semester and the 2010 Spring Semester. The mapping interviews were conducted in November 2009 and the photo elicitation interviews in February 2010. The recruitment was done either within the library or on campus by asking students at random whether they were interested in participating in the interviews. In addition, library student workers were asked to approach other students to see if they were willing to participate in one of the activities. In the end, 11 mapping interviews and 10 photo elicitation interviews were conducted. The mapping interviews were done in four different campus buildings, whereas the photo elicitation interviews took place only in the library. Of the participants, 13 were female and eight were male. The participants came from different academic fields and different student levels. Please note that this small sample was not intended to be representative of the entire student body at AUP.

4.3 Analysis and Interpretation

Once all of the teams had gathered their data, they used a shared set of procedures to analyze and interpret the data. Teams were asked to conduct a series of 10 brief activities, lasting 20-30 minutes each. After each activity, they were to document their work. At the end of the 10 activities, the teams shared all of their documented notes with each other. The brief activities included drawing up lists of:

- Surprises, confirmed assumptions, and overall reactions and thoughts

- Things that people are getting done; where they get stuck

- Best places to study, do homework, work on a paper

- Student priorities

In other activities, participants focused on the ways that the library is already supporting student academic work, new ways the library could help, and implementation ideas. Once participants had all sent in their documents, a master document was drawn up for final analysis. Site teams reviewed this document for similarities and differences between the different institutions, and prepared brief statements about how these four institutions resemble each other or differ.

Finally, the site teams met at the Seventh Annual American International Consortium of Academic Libraries Conference in Budapest, Hungary, in June 2010, to complete the work of interpretation and implementation planning in person. In a full-day workshop, the teams participated in brainstorming and planning activities and prepared the final version of this report.

5. FINDINGS AND DISCUSSION

The following sections discuss the chief findings and implementation ideas from each university.

The American University in Cairo

The team was surprised to learn that students are not doing very much studying on campus. They tend to socialize between classes, not review for a quiz or catch up on reading. We suspect this is the result of a number of issues. The majority of AUC students live off campus, at home with their families. Cairo is a huge city, both by geography and population. AUC students live all over the city, but the campus is the one place that they come together; so time spent on campus is precious time for socializing. Students were also very concerned with the aesthetics of the spaces in which they spend time. Favorite places were often considered to be so because of a pleasant view or plenty of natural light. We did not realize that this was such a high priority prior to conducting these interviews.

AUC moved to the new campus, out of the bustling city center, in the summer of 2008. At that time, it was obvious that the library was the heart of the campus, as it was the only building with air conditioning and consistent Internet access. Students flocked to the library, and the noise level in the plaza level Learning Commons was usually quite high. Despite improvements to the rest of campus, however, students continue to spend much of their down-time in the library. They seem to use our spaces as a "third place" to meet friends, and check Facebook, et cetera. The AUC librarians expected that this was the case, and student interviews confirmed so.

8

There were a number of difficulties faced by students related to using the library. Because they tend to do their academic work at home in the evening, they can't access library assistance after they leave campus. The AUC Library is open until 9.30PM during the week, and the Help Desk is staffed by a librarian until 7PM. To address this issue, the AUC Library implemented chat reference, which is available during all hours that the library is open. This service is monitored by Student Technology Assistants (STAs), who work at the Help Desk and are trained by librarians and the Center for Learning and Teaching. Usage statistics have not yet been compiled, but an increase in popularity is expected each semester. At this point, the next steps would be to compile and analyze statistics, and develop a plan for promoting the service to boost use.

It seems, however, that many students are not even using the Help Desk when they are in the library. We feel that this is an issue of intimidation as opposed to ignorance of the service. The idea of roaming assistance was discussed, although this has not yet been implemented. We thought that using the STAs might be ideal; students would be receiving peer-to-peer assistance and might be more comfortable asking for help. Issues such as the best way to identify roaming help, and whether there should be a Help Desk "home base" on each floor of the library were not resolved. Obviously, this concept needs to be revisited and considered for possible implementation in the fall of 2011.

The team also found that students have a lot of trouble navigating the stacks. The Library of Congress (LoC) classification system is new and confusing for most of them, and they tend to want to browse more than we expected. We talked about implementing a LoC element into LALT 101, our required information literacy course, but decided that this content change would not be prudent at this time, as the course is in the middle of a format change. However, the idea of a map of the stacks, color-coded by subject, was popular. Currently, such a map is in the early stages of development. We realize that although this will help students navigate, it is not a solution to the problem of unfamiliarity with the LoC system, and further discussion is needed to determine whether training on this topic should be integrated into the AUC Library information literacy program.

Some of the things with which students were having trouble were already resolved by the time of the meeting in Budapest. For example, students were experiencing difficulty reserving group study rooms, but a new interface was implemented. In September 2010, the Summon discovery service was put into use, indirectly addressing the issue of students' discomfort with using the library databases. Of course, as the library grows and changes, it will present new challenges to students, librarians, and faculty members. This is why research projects of this type are an important tool in developing library spaces, services, and resources.

American University of Sharjah

One of our major findings is the degree to which AUS students are tied to their family and friends. Families impose significant obligations and responsibilities on students and there are times when academic activities do not take priority. Students at AUS also spend a significant amount of time and effort

helping each other, both academically and personally. It is not unusual for a student to do library research for a friend or go out of their way to give them personal support. If a parent, friend or close family member needs their assistance they will help regardless of the impact it may have on their academic responsibilities.

The team also found that first year students seem to compartmentalize their lives and do not seem to be able to integrate their academic life into their family and personal life. However, as students move into the upper years of their academic career they seem to be able to incorporate more of their school work into their lives and they start to identify themselves with their area of study. For example, a student in her senior year identified herself as a computer scientist.

The data shows that students focus on immediate short-term needs and goals and they operate within a time frame that is day to day. The team was very surprised by how few students overtly manage their time using a tool like a calendar, paper or online schedule, mobile phone, or other method. Most students seemed to manage their time by using their memory.

On the AUS campus students spend most of their time in the building where their classes take place. They often look for areas within these buildings that fulfill certain needs, whether it is the need for social space or quiet study space. It was surprising to find that students are very particular about their work spaces and they need a wide variety of different kinds of spaces. For example, an area they consider a good place for doing homework is often very different than a good place for studying. It was also surprising to learn that every student interviewed recognized their need for a distraction-free study area. Furthermore, it was surprising to find that students know about the library's "No-Talking-Zones" and often mention them specifically by name as good areas for studying, although they did comment that sometimes these areas are too quiet. Other areas they mention that are good for studying are their own private bedrooms.

The AUS Library provides many different work and study spaces within the library. AUS students are able to accomplish many goals when in the library and the interviews show that students are very productive. They are able to write papers, print out their papers, study quietly, greet their friends, use library databases, work in groups, practice presentations, and conduct many more activities.

There were some activities students were unable to accomplish or had difficulty accomplishing. The researchers have studied these problem areas to determine whether the library can play a role in addressing the issues.

AUS students often have a difficult time finding physical materials in the library. The LoC system is confusing to students and they often feel lost in the book stacks. After discovering this, the library has taken specific actions to solve the problem. Signage has been improved; links to the online map that is directly linked to the item have been made more obvious in the library catalog; a video tutorial was developed to show students how to find a book and has been set up next to the book stacks; and the library has developed handouts that provide an outline of the LoC classification system. The library is also investigating the possibility of providing a staff presence next to the book stacks.

During the interviews many students complained about having to carry their personal belongings while on campus. They complained about the weight of their books and their laptops. The library has suggested the installation of student lockers in the library building and will continue to advocate for this. The library is also investigating implementing mobile applications for our current web services and has increased the number of circulating laptops.

Some students mentioned that the library's "No-Talking-Zones" are too quiet. The library is investigating the purchase of a white noise machine and is making recommendations to improve the library's acoustics.

Information from the interviews seemed to indicate that students who live off campus may have more difficulty in accomplishing their academic goals. The library is fortunate to have a team of librarians who ensure that all electronic resources are seamlessly available 24 hours a day, 7 days a week and are available both on and off campus. The library's website provides end-user access to all of the library's resources; electronic books, journals, encyclopedias, and the online library catalog provides bibliographic access for the print materials, in addition to research and instruction assistance.

Lebanese American University

LAU has a campus in Beirut, Lebanon's capital, and another one in Byblos, about 25 miles to the north of Beirut. Riyad Nassar Library (RNL), which is located in Beirut, is a 13-storey building of 8,000 square meters. A state of the art library, in the middle of the capital, RNL is frequented by an average 1,700 visitors/day. The Byblos Campus Library, temporarily located in the Science Building, occupies 1,700 square meters. The plan is to relocate in a couple of years to a technologically advanced and dedicated four-storey   building.

Before the team embarked on this ethnographic study, there were few assumptions and expectations. The researchers thought that studying would fall in the first priority of our students and were surprised to find out that Facebook, chatting and other socializing activities were their utmost priority. Similarly to AUC, most of the LAU students live off-campus with their parents. The Middle Eastern society is considered to be more of a "family-centered" culture when compared to the Western societies. The local culture nurtures long-term friendships, which explains the fact that socializing is an important part of their daily activities. This includes chatting, face to face or virtual, Facebook, and texting. Most of the participants stated that they might work on a paper in the library or gather notes from their classmates. Studying for a quiz would be left for the evening, when they got home.

The students are very organized. Some use calendars or agendas to work their schedules while others use their mobile or a to-do list. They focus on short-term duties and goals. This explains the heavy use of the library during mid-terms and at the end of the terms when it is time to submit papers and projects.

The team knew that space is a problem at the Byblos Campus Library, but was surprised to learn that despite the large new library building in Beirut Campus, some students complained about space problems at RNL. As a result, the RNL infoCommons area was redesigned to accommodate more computers.

It was discovered that students have different learning styles and therefore require different learning environments. While some students stated that the library was their favorite place to study, others complained about the noise in both campus libraries and therefore preferred to study on the beach or in a park. This was channeled to the steering committee of the future Byblos Library premise. The new Byblos Library will incorporate a coffee shop, and green areas will surround the infoCommons floor. Different types of study areas will be provided, allowing group study as well as silent areas for individual studies, et cetera. As to RNL, we reshuffled the furniture hoping to provide more quiet study places.

While some students welcomed the eating policy, others stated that they would be more comfortable working on their projects in the library if food was not on the menu. Based on these findings, we revised the   eating   policy   to   snacks   only.

Some participants showed preference to working on their projects on computers in their department's computer lab, as opposed to those in the library. This is due to the unavailability of specific engineering software and similarly specialized applications on the library computers, in addition to the limited printing quota. Unfortunately, due to software licensing issues, we were unable to download all of the applications for all of the disciplines taught at the university onto every computer in the library. As to the limited printing quota, we felt that this policy is necessary to prevent printing abuse and therefore will not be changed.

Most of the students interviewed felt lost in the library in general and in the stacks in particular. Things that seem very clear to the librarians are obviously confusing for the students. Therefore it has been decided to   add   more   signs   and   instructive   notes   to   the   different   sections.

Finally there was a call for extending the library's opening hours. This was taken into consideration and the librarians involved were greatly cooperative. As a result, both campus libraries opening hours were extended,   especially   during   exam   periods.

American University in Paris

The mapping interviews and photo elicitation interviews generated many surprises during the data gathering and analysis. One of the biggest surprises was that students felt lost in the stacks. In five out of 10 interviews, students took pictures of the stacks as "a place in the library that you feel lost." Another surprise revealed by the photo interviews was that while asking students where they liked to study or write a paper, the other university buildings were not pictured as often as the library. For studying and writing, the library is predominant, whereas the computer lab does not figure in any of the pictures. Finally, the photo interviews showed that studying and learning is possible in a huge variety of places, such as at the student café, the library, home, in the bathtub, in front of the Eiffel tower, or even in a public park.

The mapping interviews confirmed a variety of learning places and also added places such as the laundry or the subway. In addition, the mapping interviews surprisingly showed that there are highly organized students whose daily lives are carefully planned with activities (e.g. two jobs, studying in the library, going

to class). Yet, there are other students with less of a daily schedule, for whom going to school seems to be the only occupation.

Then, it was very interesting to learn that students' choices for learning spaces are determined by little things, such as the distance to the subway station. For example, a student works as a student assistant in the computer lab, then continues to study in the lab after work, and takes the subway home. It would take an 8-10min walk to get to the library, and in addition there is no subway station nearby. The student's decision is clear: s/he chooses to use the computer lab because it is less time consuming and it fits better in the daily work flow.

Finally, the choice of learning space is determined by what the students have to do for academics. For example, students claimed to read articles on the subway or while doing laundry. Other students mentioned that they only can write their papers at home, whereas when it comes to researching or studying, they would do so in the library or the computer lab. Students see that they have a list of academic tasks to do for a certain date and hence prioritize the place where those tasks fit (i.e. library, computer lab, student café) and when those days fit in the daily schedule (i.e. in the morning subway ride before classes, between two classes).

Besides the many surprises, the research confirmed several general assumptions. The most obvious confirmation is that students' academic life is highly technological. The computers, access to the Internet, and mobile phones are part of almost all pictures when it comes to learning, studying, or writing a paper. Furthermore, students frequently use communication tools such as email, chat, Facebook, or video Skype in order to stay in contact with peers and family. Student learning platforms are also part of their daily life.

Also, as expected, the photo elicitation interviews confirmed that students prefer learning spaces that are quiet (e.g. at home), not disturbing, or just good for working. Natural light and lots of space are important as well in order to qualify a space as good "for getting things done" as one student said. "Getting things done" is one central question for students in regard to their work load.

Another aspect confirmed by the mapping interviews was the importance of peers. Students go out after classes, meet and talk to friends after or before classes, go for dinner together or meet up around shared activities such as going for a coffee, attending a conference, or playing football. Note that AUP students are much less likely to live with their families than are students at the other participating universities, all in the Middle East. For these students, academic life is important but since most of them are living on their own the first time, going out and meeting peers is very important too, perhaps even more important than academic s. The many interviews or photos displaying friends or girl/boyfriends underline this fact.

And finally, the mapping and photo-interviews point to the fact that there is not only one but many types of users coming to the library. There are undergraduate students that come in every day as they have to read articles on reserve, there are business students that come to use the library because they work on a group project in the group study rooms, and there are the Sunday afternoon procrastinators. These different user groups have different needs, attitudes, and learning styles.

So, the team learned that students accomplish many things in the library, such as studying, reading, writing papers, printing or accessing information. This shows that the library is helpful for students to do their academic work.

However, other comments in the interviews or aspects in the pictures taken by the students reveal barriers or problems in library use. For instance, sometimes students do not come to the library because it is too loud and therefore will stay at home for writing papers. Another student reported that he needs to walk in order to get his thoughts straight. Yet, another student mentioned avoiding the library because of its distance. And another student mentioned to have problems opening word documents on the computer because he has been working on a Mac. Those problems might be individual cases but show as well where the library can improve in order to be useful for students.

The research was also very instructive regarding general attitudes of students or different learning styles and types as mentioned above. Some students preferred to work alone in quiet while others enjoyed the company of peers in the student café on campus. Some students were highly organized in matters of books and schedule, others did not care.

Given the fact that the library's mission in regard to space is to provide a high-quality learning space for all students, we should take the differences into account when considering library space. There are different user groups and it is important to keep the space adjustable to students' need. There is not one but many different solutions for learning spaces calling for flexibility within these spaces.

6. CONCLUSION

It is obvious from these accounts that each institution involved in this pilot project gained a great deal of insight about their respective student bodies. Similar themes came up again and again, indicating that undergraduates from Paris to Cairo share certain traits. They feel lost in the stacks, and baffled by the Library of Congress system. They place high importance on family, particularly in the Middle East, and socializing, in all geographic locations. But, these students demonstrate diversity as well, as students at a particular university and across the entire pilot group. They choose their preferred learning spaces for very specific and differing reasons, be it natural light and a nice view, or proximity to a subway station. Some organize their academic lives very carefully, using Post-it notes and calendars; others prefer to keep this information solely in their heads.

It is also important to note that despite the variation in geography and campus design – Middle East vs. Europe, urban vs. suburban – all of these universities are structured as American-style educational institutions. They are similar in at least this aspect. Perhaps an American-style university, situated in a non-American culture, draws a particular type of student. This angle could inspire further research, in the form of a comparative study of universities that are not structured within this system. In addition, the physical characteristics of these campuses obviously change the way that students use different spaces, and particularly the library. For example, the AUC library is located in the very heart of campus. It is a popular destination for this reason, and because it offers comfortable seating, air-conditioning and Internet access. The AUP library, however, is located at quite a distance from the other university

buildings and public transportation. A closer examination of campus space and geography provides another opportunity for further research.

This ethnographic study has provided the AUC, AUS, LAU and AUP librarians and library staff with a better understanding of undergraduate students. Despite a previous tendency to generalize about these students, this study has emphasized their individuality, the variety of their situations and the complexity of their lives. Most importantly, the researchers who conducted this study now have more information at their disposal, information that will support the development of new library programs, services and materials to better serve this community of learners.

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