Exploring the International Student Experience: Providing Insight Through a Mixed-Methods Approach
Abstract

Southern Illinois University Edwardsville (SIUE) has seen a dramatic increase in international student enrollment in the last four years. To serve this rising population effectively, librarians at SIUE created a research study to explore the information needs and academic experiences of international students at SIUE. The study employed a mixed-methods approach including a survey as well as in-depth interviews and photo diaries. The results provide insight into international students’ library use and academic life.

Keywords: Foreign students; Academic Libraries; Library outreach; Photovoice; Surveys; In-depth Interviews; Library resources; Library services; Library spaces
How can libraries provide relevant and responsive services to meet the needs of the growing population of international students on campus? According to the Institute of International Education (2016), the number of international students attending U.S. universities has dramatically increased in the last two decades, growing annually by 10% in 2014/15 and 7% in 2015/16. While the increase has slowed under recent administrative changes, the growth has not stopped. The United States had more than one million international students studying in universities and colleges in the 2015/16 academic year, which accounted for 5.2% of the nation’s higher-education enrollment.

Like many U.S. universities, Southern Illinois University Edwardsville (SIUE) has seen a sharp increase in international enrollment in the past four years. SIUE, established in 1957, is a master’s level institution in the Midwest, offering a broad range of academic programs in liberal arts, education, engineering, business, nursing, pharmacy, and dental medicine. While the majority of SIUE students are Illinois residents, the number of international students grew from 330 FTE to 430 FTE between 2014 and 2015, an increase of 30%, resulting in 3% of the total enrollment (see Fig 1).
SIUE has enjoyed the growth and diversity that international students contribute to campus life and the influx has presented new challenges and opportunities for the library. Librarians initially noticed a high volume of textbook requests from international students at the beginning of each semester. Since the library does not provide textbooks, this unmet need resulted in frustrating exchanges between international students and librarians. The high volume of textbook requests called attention to a gap between the expectations of international students and the services and resources that the library is able to offer. Therefore, librarians felt a strong need to collect more information from the international student’s perspective in order to understand and effectively reach out to these students. As a starting point, librarians studied the literature on international students and their library use, engaged in conversations with key administrators on
campus, and analyzed demographic data on the international student population at SIUE. The information that was obtained offered some insights regarding the student body but lacked data specific to their library use and academic life. To fill the gap in their knowledge, the librarians created a study to capture the honest and unfiltered experiences of international students on campus, to explore their perspectives and perceptions of the library, and contextualize these schemas within the international student’s larger campus experience at SIUE.

**Literature Review**

The relationship between international students and the library is a subject that has been covered extensively in the library literature. As international students acclimate to the U.S. higher-education system and their new campus life, their expectations of and beliefs regarding the library color their experience studying in the U.S. The more librarians seek to understand these schemas, the better they can meet the needs of international students throughout their academic journey. The following literature review analyzes the common themes found in articles published between 2000 and 2018 that solicited information directly from international students regarding their thoughts and beliefs about the library.

**Purpose of the Library**

It is clear from the literature that international students believe the primary purpose of the library is to contain books and make them accessible. Datig (2014) reported that students overwhelmingly used the term “book” in their description of the library’s purpose. A student was quoted stating that the purpose of the library is to “contain extensive collections of books so we can borrow them when needed…” (p. 351). This parallels the OCLC report on the perception of libraries which stated that 70% of all respondents from Canada, India, Australia, Singapore, the United Kingdom, and the United States “[associated the] library first and foremost with books.
There was no runner-up” (De Rosa, Cantrell, Cellentani, Hawk, Jenkins, & Wilson, 2005, p. 3-31). In terms of valuing the printed book, multiple studies reported that the library’s physical collection was insufficient to meet the expectations of international students. In a survey administered by Jackson (2005) and a separate survey administered by Shaffer, Vardaman, and Miller (2010), students commonly referenced a lack of books as one of their major disappointments with the library. Research by Wang (2008) echoed this student perception and added that international students expressed anxiety that lending materials to outside patrons would limit their accessibility. When comparing the information seeking behaviors of domestic and international graduate students, “more international graduate students than American students [found] information in library books and the library online catalog [played] a more important role in international students’ information seeking” (Liao, Finn, & Lu, 2005, p. 23). By studying international students’ perceptions of the role and purpose of the library, librarians can better prepare to assist them in finding resources that they prefer, as well as teach them to find and use resources they are less comfortable with, such as electronic resources.

**Use of Electronic Resources**

As the literature demonstrates, while international students clearly regard the role of the library as the keeper, organizer, and preserver of books, their relationship with electronic resources is far murkier. While early studies showed that international students found technology to be a barrier when utilizing the library, more recent research indicates that the majority of international students are comfortable using a computer and the internet. According to Jackson (2005), 96% of students reported using the internet on a regular basis and, of the 94% of students who reported using the library in their home country, 84% used a computer in that library. This idea was further supported by Lu and Adkins (2012) who asserted that mechanical barriers,
which include the computer, printer, and other technologies, caused the least amount of anxiety for international students in the library.

Although students are now more technologically proficient, they have a wide range of beliefs and experiences with electronic resources. In Datig’s (2014) survey, students did not mention e-resources often, but they reported a variety of thoughts including mistaking Google for a database, being surprised that the library had electronic resources, and even expressing that the library’s inclusion of electronic resources was antithetical to the nature of libraries. Hughes (2010) also discovered students had misperceptions regarding electronic resources ranging from the belief that the library created all their own online resources to the misuse and mistrust of the online catalog. In another setting, international students in focus groups mentioned their familiarity with databases and catalogs in their own countries, but expressed challenges when adjusting to U.S. library databases, which they termed “more sophisticated” (Patton, 2002, p. 94). Conversely, Yi (2007) found that “[International students made] full use of library printed materials as well as online resources. The higher the education level they [attained], the more likely they [were] to use databases, remote access to the library offerings, and e-journals frequently” (p. 671). It’s evident that international students’ knowledge and use of electronic resources varies widely within the literature and more research needs to be done to explore this topic. Results from these and future studies can help guide librarians when assisting international students to ensure that they clearly communicate what a database is, where it can be accessed, and how it can be searched.

**Interactions with Librarians**

The relationship between international students and librarians is the topic of several studies; however, the research differs in its outcomes and the data indicates that the nature of this
relationship is unclear and dependent on many factors. In multiple studies, international students reported generally positive feelings in regard to librarians. Jackson’s (2005) research reported that, in response to what they like about the library, many students commented that the librarians were friendly and helpful. Shaffer, et al. (2010) also reported that students highly rated the assistance by librarians (4.105 out of 5). In Wang’s survey, numerous students responded, “that they were satisfied with the services provided by librarians and library staff” (2008, p. 8).

However, these generally positive feelings about librarians do not directly result in reference interactions. Repeatedly, the literature indicates that international students are reticent to ask librarians for assistance. Wang found that 45% of students said they would ask a reference librarian for assistance if they couldn’t find the information they needed, but 42% said they had never asked a librarian for help (2007). Yi (2007) found that an equal percentage of students access information by either asking a friend/classmate or asking a librarian (34.4%), leading one to believe that cultural differences could be at play. Furthermore, Hughes found that overall international students appreciated the assistance received from librarians, however, they displayed a limited understanding of the different ways librarians could help them and expressed that they were reluctant to ask them for help. This reticence was due to the fact that students thought the librarians looked busy and didn’t want to bother them or because they didn’t know they could ask them for help (2010). Lu and Adkins found that the highest level of anxiety for international students resulted from barriers with library staff. In contrast to other studies, when asked about interacting with librarians, students responded with comments such as “The library staff doesn’t care about the students” and “The reference librarians are unhelpful” (2012, p. 3). These mixed results illustrate the complexity of the relationships between international students and librarians and a lack of consensus within the data. Factors such as experience with librarians
from their home country, anxiety with their English language skills, as well as cultural
differences can all influence a student’s decision to engage with a librarian. These results, and
the fact that the results are often disparate, should encourage librarians to take a proactive
approach to engaging international students who may seem lost or struggling.

While the existing literature provides insight into the relationship between international
students and the library, what is missing from the literature is a broad exploration of international
students’ experiences as they navigate a new, foreign academic landscape and how they include,
define, situate, and use the library throughout the process. This study seeks to contribute to the
complex conversation regarding the international student experience with the library through a
mixed-methods approach that includes ‘hearing’ an international student’s experience in in-depth
interviews, ‘seeing’ their perspectives through photos in photo diaries, along with quantitative
data from a survey. This research not only seeks to explore the international student experience
in the library, but to place that experience within the context of their academic careers. By
combining different methods and contextualizing the data using information regarding the
student’s whole academic life, this study seeks to create a more holistic and nuanced
understanding of the international student experience.

Methodology

The researchers employed a mixed-methods approach consisting of in-depth interviews, photo
diaries, and a survey. This combination of qualitative and quantitative methods provided a more
nuanced and holistic understanding of the student experience and allowed space for unknown
issues to be discussed.

In-Depth Interviews
The in-depth interviews consisted of 14 questions related to a variety of areas including the student’s recruitment and adjustment to campus along with their academic, library, and social experiences as seen in Appendix A. The semi-structured interview format allowed the researchers to ask probing questions on topics that were introduced by the student. Participants were chosen via a random systematic sample from a list of international students enrolled in classes during the Fall 2015 and Spring 2016 semesters. Ultimately, 48 students were interviewed.

Photo Diaries

The photo diary method included a list of nine prompts or questions that the student read and then responded to by taking pictures. The researcher then interviewed the student about the pictures they took and what they meant. The photos and subsequent interviews were all used for analysis. The photo diary method focused on spaces on and off campus that were meaningful to the student, including preferred study spaces, preferred social spaces, and places the student avoided as seen in Appendix B. Thirteen students participated in this method and the population was selected by a random systematic sample of the international students who were enrolled in the Fall 2015 and Spring 2016 semesters. The population samples for the in-depth interviews and the photo diaries were mutually exclusive.

Survey

The survey was conducted from April 4-22, 2016 and sent to all international students enrolled in classes during the Spring 2016 semester. The Qualtrics survey was issued to 422 students and ultimately the researchers received 188 usable responses (44.5% response rate). The survey focused primarily on the student’s relationship with the library and covered topics such as the resources and services students used, the activities they engaged in while visiting the library,
and how they felt about the library. While this was primarily quantitative, there was one open-text question asking what the students would change about the library. The survey instrument can be found in Appendix C.

All methods were approved by the SIUE Institutional Review Board. Sixty-one unique students participated in the in-depth interviews or photo diaries and 188 students responded to the survey. The 61 participants received $10 gift cards for either Amazon or the campus bookstore and the 188 survey participants were entered into a drawing for a $100 cash prize. Each method collected the same demographic information: home country, sex, length of time in the United States, and student status.

**Analysis**

**In-Depth Interviews and Photo Diaries**

Once the interviews were transcribed and the transcripts were scrubbed for identifying information, the researchers imported the documents into the NVivo analysis program. Of the 48 in-depth interview transcripts, 41 were used for analysis and of the 13 photo diaries, 12 were used for analysis. Initially, each member of the team read a transcript and started to identify themes. These themes were given code names and entered in the group code book. The code book included definitions of the themes, when to apply the code, when not to apply the code, and similar codes with see references. Separate code books were created for the in-depth interviews and the photo diaries. Each pair of researchers inductively coded their assigned transcripts independently and then met to reconcile their work. This coding method allowed for greater interrater reliability and the process of inductive coding deterred influencing the codes with preconceived ideas about the research or its outcomes. The code book was valuable for
addressing any disparities between the researchers. When analyzing the photo diaries, the images were coded in addition to the student interview.

After inductively coding the photo diaries and the in-depth interviews in NVivo, the researchers queried the data using the software’s embedded querying methods. These methods included text searching with various degrees of term matching, compound text searching to determine thematic relationships, and matrix coding to identify thematic overlap. The researchers used these tools to identify themes and trends along with each of their emphases.

Survey

The data from the survey was exported from Qualtrics into Excel. In Excel, the researchers cleaned the data by excluding any duplication and removing any identifying information. The data was then imported into SPSS where the researchers identified variable types, determined frequencies for each question, and tested for relationships between variables.

Results and Discussion

Library Resources

As indicated in the literature, an international student’s experience with the library often begins with information seeking behaviors. Therefore, it is imperative to develop a sense of their resource preferences and expectations. This gives researchers context for the reasons international students might visit the library and what they are doing when they get there.
Figure 2 Survey data showing the number of students who responded "all the time", "often", or "sometimes" to the question "How often do you use these library resources?"

To gather data on this topic, the survey asked students to rate how often they use different types of resources on a Likert scale ranging from “all the time” to “never”. The data indicated that when students come into the library to use its resources, they were overwhelmingly coming in to use public access desktop computers. 118 of the 162 students responded that they use public access desktop computers “all the time”, “most of the time”, and “sometimes,” but far fewer of them were checking out laptops available for short term loan, movies, music, and other equipment such as cameras (see Fig. 2). The study’s qualitative responses, which allowed for more detailed data in terms of how students assess library technological resources, supported the data from the survey. Almost all, about 93%, of students mentioned technological resources in the in-depth interviews. Specifically, 58% of students from the photo diaries included photos or made reference to technology as an integral component of their favorite place to study. 25% of
the photo diary students mentioned that technology in the library needs improvement. This was similar to the responses from the in-depth interviews, in which about 10% of the students interviewed mentioned dissatisfaction with library technology, and the responses from the survey’s open text question, in which five students referred to needing access to more computers. The common theme from these datasets is that technology is essential to students’ academic pursuits, and there are not enough computers in the library for them during high-traffic times. Shaffer, et al. (2010) reported that international students at their institution also expressed a need for more computer access and, given the results on computer use by international students reported by Jackson (2005) and Lu and Adkins (2012), the number of international students at SIUE using public access computers is unsurprising. As streamable media becomes less expensive and more pervasive, camera phones and personal subscriptions to services that deliver movies, music, and other media may influence the use of these resources provided by the library.

As is shown in Figure 2, over half of the survey respondents accessed databases, print books and e-books and, significantly, of the 116 students that responded to the open text question, “What would you change about the library,” the top responses repeatedly referenced the need for access to more resources. Specifically, students mentioned wanting more electronic access to journal articles, difficulty finding what they need at the library, and having to access many items through interlibrary loan. This data reinforced the data from the in-depth interviews and the photo diaries. Of the 12 students who participated in the photo diaries, eight were satisfied with the resources at the library while three, or about 25%, reported that they wanted more resources. References to dissatisfaction with library resources were relatively equivalent in the in-depth interviews in which students specifically mentioned that they wanted more access to books and journal articles. This data is comparable to data from Middle Tennessee State University, where
Wang found that their international students suggested “more new books and electronic journals” (2008, p. 8). Similarly, in a survey at San José State University, international students reported that they had “a concern that sharing collections with the general public will lead to more competition for library materials” (Jackson, 2005, p. 204). While the data reports international students using databases, it is important to note that this usage is self-reported and does not measure proficiency or beliefs about e-resources. More research would need to be done to ascertain if students use these resources effectively.

While the survey data at SIUE touched on the issue of textbooks, which was referenced eight times in the open text responses, 27% of the students who gave in-depth interviews also mentioned that access to textbooks was a major obstacle to their academic success. These findings mirror the outcomes of research by Shafer, et al. (2010) who reported that international students at their institution articulated that the library lacked books, which the authors inferred included textbooks. This was significant not only because of the number of students who referenced textbooks in their interviews, but also because of the method of data collection, specifically the utilization of a mixed-methods approach, gathered data that would have been missed if the researchers had used only quantitative methodologies.

**Library Space**

As previously mentioned, the data reported that technology was an important part of the library spaces that international students prefer, but the data also included information on how international students use the library as a place as well as their spatial preferences and frustrations. Most students expressed preference and satisfaction with the library’s space. 90% of students in the in-depth interviews said that they used the library as a study space and 67% from the photo diaries referred to the library as their favorite place to study. In addition to the
interview transcripts, the researchers analyzed the photos students provided in reference to their favorite place to study. Three of the eight students who said that the library was their favorite place to study took pictures or specifically mentioned that they liked the space because it was isolated. Four of the students mentioned or took pictures of spaces where natural light is one of the most prominent features (see Fig. 3).

![Figure 3 Photo from the photo diary of a male international graduate student displaying the student's favorite place to study. The study space is in the library and illustrates the student's preference for space that is isolated and quiet, with natural light.]

Five of the students liked the quiet of the space they were referencing, and six students referred to it as their favorite place because of easy access to technology. These preferences paralleled the data found in the in-depth interviews. Over 50% of the students interviewed used the library as a quiet space. The emphasis on quiet in both the photo diaries and the in-depth interviews had interesting implications when compared with the number of students who mentioned using the library as a group study space, which by nature is a louder activity. In fact, in the photo diaries, the proportion of students who used the library as a group study space was equal to the number that used it as an isolated study space. And roughly the same proportion,
between 22-27%, of the students in the in-depth interviews also mentioned using the library for group study. As one male graduate student from Bangladesh stated in his photo diary interview, “Some people would like to have some privacy while they are studying. So, I think it’s a good combination…if you want to have privacy, you have that portion…if you want to have group study, you have that portion also.” This desire for multipurpose use of space was also reflected in the survey response to “what would you change about the library” where students indicated the need for clearer division between quiet spaces and group study spaces in the library.

Students’ desire for multiple types of spaces, natural light, and the preference for quiet spaces is not unique to international students. Literature investigating the study needs of the whole student body has thoroughly documented this. What is important to note is that the needs of the dominant group of students (domestic) applies to a minority group (international), even though international students have a culturally different library background and possess unique library expectations.

Library Services

Just as important as the spaces and resources that international students are accessing, library services offer a direct line of support for international students and their information needs. The study’s data indicated several themes regarding library services that directly impact an international student’s experience at the library. These themes include the library’s hours of operation, printing services, and interlibrary loan, as well as mediated services such as the library’s orientation program.

The library’s hours play a major role in the access and use of library services and resources. During a regular semester, the library is open for 89.5 hours during the week and is open 24/7 during the final two weeks of the fall and spring semesters. Despite this, 22 of the 116 responses
to the survey question, “What would you change about the library” indicated that international students want either 24/7 or substantially extended hours during the entire semester. Four of the 41 in-depth interviews also indicated dissatisfaction with the library’s limited open hours.

A widely used service provided by the library is printing. When asked how often they use library printing services, the survey results reported that 70.6% of the 158 respondents used printing services at the library “all the time”, “often”, or “some of the time” when they visited. Additionally, 15 of the 41 students from the in-depth interviews specifically mentioned using the library’s printing services and 7 of the 116 survey responses to “what would you change about the library” indicated that international students want easier or lower-cost options for printing. This is similar to the findings at Troy University where international students also expressed concern about the costs of copying within the library (Shafer, et al, 2014).

At the intersection of library services and resources, a common theme in the data was how often international students are dependent on interlibrary loan services to get the resources that they need. The survey data indicated that 50.6% of 164 respondents use I-Share, the academic and research library interlibrary loan program in Illinois. 25 of 116 survey responses to “what would you change about the library” indicated that international students feel that the library does not have enough resources to satisfy their information needs and 10 students from the in-depth interviews mentioned using interlibrary loan to access non-textbook resources they could not find at the library. The issue of textbook affordability is addressed below, but a noticeable theme in the data was how often students attempted to access textbooks using interlibrary loan. Eight responses in the survey commented directly on an international student’s need for increased access to textbooks. Of the 41 in-depth interviews conducted, 10 students specifically mentioned using interlibrary loan to get textbooks for their classes.
One direct line of interaction between international students and library personnel is the new student orientation that takes place at the beginning of each fall semester. During this time, international students spend a portion of their day touring and becoming familiar with the library space and its resources. The data showed that the library’s orientation program had significant influence on a student’s comfort with the library. In the survey, 73.7% of the 163 respondents reported that the library orientation was either “very helpful” or “somewhat helpful” in providing useful information about the library. 12 of the 41 students from the in-depth interviews also specifically mentioned the library’s orientation as helpful to their transition to the university. The number of students that mentioned the library orientation service in the interviews has significant impact considering they were never directly asked about the orientation experience. Despite the positive outcomes of the library’s orientation program, the data suggested that international students’ interaction with library personnel is low. While one question in the survey indicated that 87.3% of 165 respondents felt comfortable asking for help in the library, another question showed that 52.6% of 152 respondents “rarely” or “never” do. One male graduate student’s comment about library personnel reflected this disconnect well, “Although I have very limited interaction…I think it’s my perception that they are very warm and always…helpful.” While the literature supports that the use of an orientation program is a successful method of informing and reaching out to international students (Langer and Kubo, 2015), the question then becomes how does the library leverage a successful orientation program and general positive feelings about librarians into more student and staff interactions?

Applications and Next Steps

Themes Related to the Library
The survey provided quantitative information about the resources and services used by international students, and the qualitative data from the in-depth interviews and photo diaries provided much needed context regarding the experience of an international student. But how can this information be used to plan and improve experiences for international students at SIUE? The applications suggested by the researchers range from small adjustments to larger programmatic initiatives.

**Interactions.** As reported by the data, there was a low rate of interaction between library personnel and international students. Qualitative data from the in-depth interviews and the photo diaries also suggested that international students have a difficult time approaching native-English speakers to begin a conversation. So how can the library make students feel included and promote social interactions? A simple solution within the library is to inform and train library personnel to seek out and initiate intentional interactions with international students. It would also be beneficial to examine existing programs and resources to modify them to be more inclusive of international students and their experiences. For example, the researchers are now investigating how several general and introductory LibGuides can be translated into different languages. While the idea of translating a LibGuide may seem daunting, there are useful articles in the literature describing libraries that have successfully implemented this change (Chau, 2002). The researchers are also seeking ways to increase the representation of international students by casting them in video tutorials and utilizing their skills in other ways throughout the library. These are small changes that could have a large impact on creating a more welcoming and inclusive environment for international students.

**Room Reservation System and Workstations.** In addition to these small changes, the in-depth interviews and photo diaries provided context for some of the frustrations that international
students feel when using the library’s spaces. One such frustration was the inability for students to reserve a study room in the library. Currently, study rooms are available on a first-come, first-served basis. Through the qualitative data provided by the photo diaries, the researchers were able to see why and how this system was flawed and are now pursuing funding to expand the library’s subscription with SpringShare to include an application that enables students to reserve spaces in the library and see room availability online. Another issue raised by the qualitative data was the lack of available computers and outlets during high traffic times. While, anecdotally, library personnel and administration has known this to be an issue, justifying the expense of adding computers and outlets to the building is much easier when the decision is data-informed.

Textbooks. As discussed previously, a significant theme found in the data was international students’ confusion and frustration regarding access to textbooks. Undergraduate students at SIUE have the option to rent textbooks through the university’s Textbook Services office. At the time of data collection, this service did not extend to graduate students at SIUE, who were expected to purchase the textbooks required for their courses. Through discussions with international students during the in-depth interviews, it was concluded that many graduate-level international students had not anticipated or budgeted for purchasing their own textbooks. The data from the study places the researchers in a prime position to become data-informed advocates for new initiatives that could benefit international students at SIUE. Due in part to the data collected through this study, SIUE will begin offering the same textbook rental options to its graduate students in Fall 2018.

Themes Outside of the Library that the Library Could Address

There are other, broader programs that the library might initiate in order to address the obstacles found in the study’s data.
Socialization. One of the most distressing themes that the researchers observed in the data was the way in which international students described interacting with domestic students. Many international students mentioned being worried about how they would be received if they tried to start a conversation with domestic students. They also mentioned that domestic students did not initiate conversations with them. As a result, domestic and international students are not interacting nearly as much as they could despite the rich and wonderful opportunity for growth and learning. Therefore, the researchers started to think about new ways to invite that interaction. One of the more progressive innovations in libraries within the past few years is the Human Library Project, designed to invite interaction and facilitate deeper, more meaningful relationships. The Human Library Project, sometimes called a “living library,” is a series of events built to create dialogue between people who may not have interacted before. Individuals volunteer as human “books” and other people can “read” the book, meaning that they have a one-on-one conversation with the volunteer and talk about the individual’s experience, find common ground, and learn to see each other beyond stereotypes (Human Library, 2000). Other academic libraries, like Colorado University, Boulder are doing “speed friending” events that connect international and domestic students in brief exchanges that humanize and teach students how quickly they can make connections with others (Kuta, 2016).

Academic libraries are a natural place to start this type of initiative, and at SIUE this type of programming falls in line with the University’s values of inclusion and citizenship. Helping students, both international and domestic, find common ground builds a deeper respect for people from diverse backgrounds and promotes cultural literacy. Planning and facilitating these events at the library makes it a place for students to establish lasting connections and builds community within the library's user-base.
**Prayer and Meditation.** There were other themes in the study that stood out not because of the number of students who mentioned it, but because what was mentioned had the potential to be significantly impactful. The inclusion of a ‘prayer room’ or a spiritual space in the library was one of these themes. A male graduate student reported that he had to leave the library each time he had to pray, saying:

> Since I’m a Muslim…I have to pray five times a day, so on a rainy day like this or in very cold weather, I would have to go from [the library] to the Spirituality Center to offer my prayer…If you can manage a small space for two or three persons where they can…offer their prayer, it would be pretty encouraging for the students.

He went on to mention that he has many Muslim friends who encounter this challenge as well. While the university does not keep statistics on the number of Muslim students who attend SIUE, the university does recruit a large number of students from traditionally Muslim countries, and the number of Muslim students on campus is large enough to form a student chapter; thus the problem is not isolated to just a few students. The inclusion of a spiritual space in libraries is a trend that is becoming popular. Spaces such as these, called anything from “serenity rooms” to “meditation spaces,” are being developed in many academic libraries across the United States and are open to any student regardless of religious affiliation. The librarians at SIUE are currently working with administrators to find a suitable place for this space.

**Transportation.** Student transportation was a persistent significant theme that the researchers continually observed in the data, specifically in the in-depth interviews and the photo diaries. Students want to leave campus to buy groceries, go out with friends or meet new people, and travel around the local region to explore. Edwardsville has a local public transit bus option and staff from SIUE’s Office of International Affairs show incoming international students how
to use the bussing system, but the schedule and stops are extremely limited. There is a bus
directly to a Wal-Mart, but it is not a direct return journey and requires students to take all their
belongings off the bus and wait for a second bus to bring them back to the University.

While making changes to the local mass transit system is beyond the scope of the library’s
services, there are still ways in which the library can position itself to become an advocate for
these changes. This is especially true when librarians have done research and have datasets on
the international student experience that can inform changes with the potential to increase use
and satisfaction with a service. For the researchers, advocacy has meant sharing the collected
data with the University, its stakeholders, and potentially the local mass transit authority to argue
for an increase or change in the places and times that the buses run.

The university has attempted to address transportation limitations before. In 2014, SIUE
partnered with ZipCar, a car-sharing program that can provide a convenient transportation option
24/7, and cars are rentable by the hour or by the day (Southern Illinois University Edwardsville,
2014). Unfortunately, of the students the researchers spoke with, none of them mentioned this
service, which led the researchers to conclude that the service was underutilized and under
promoted. Most likely the international students are unable to use the service, because most do
not have a valid driver's license.

There is also the opportunity for ride-sharing through the many student organizations on
campus. SIUE recently chartered an International Student Council meant to bring international
and domestic students together. A ride-sharing program with domestic students who own
vehicles and international students who do not would be a great opportunity for those students to
build relationships and get off campus together. Alternatively, there are many student groups on
campus for which community service is a required part of their charter. Making ride-sharing a
service opportunity would be beneficial for both groups. It has been suggested that the university could utilize Computer Science students in software and app development classes to develop an app that facilitates ride-shares, or creates an Uber-like service just for SIUE students. There are a lot of possible avenues to address limitations in transportation, and the library will be a strong advocate to create viable solutions.

**Limitations and Conclusion**

**Limitations**

Since every scientific study has limitations, it is important to report those here. The first obvious limitation in these methods of inquiry is that the information was generated directly from the students. While this provides insight into student experiences and perspectives, the information is not objective nor does it report students’ unknown or unconscious issues. An example of this is if students are unaware that their work involves plagiarism, they would not report it and the issue will not be a theme within the data. Within this research, plagiarism was only mentioned briefly by two people, but it is clear from the literature and the International Student Office on campus, that this is a pressing issue for these students.

Another influencing factor on the data is that conversations in the in-depth interviews were influenced by current events. During the study, the bombings in France, the invasion of Ukraine, and acts of prejudice or violence against Muslim people reported in the media influenced some of the conversations. Also, when originally creating the study, the librarians were hoping to meet with students in a neutral place on campus and to mask that they were from the library. Unfortunately, this proved to be too challenging and the researchers were ultimately upfront with their identities and many of the interviews took place within the library. While students were repeatedly encouraged to answer questions honestly, this situation allowed for respondent bias.
Also during the interviews, some international students expressed excitement and communicated that they wanted to ‘help’ the researchers reach the goal that they were hoping to achieve. The researchers repeatedly expressed that the best thing the students could do was to answer each question honestly and completely.

Conclusion

The purpose of this study was to cast a wide net to explore the international student’s overall experience in the library and its context within their experiences on campus. The data will now guide research in more specific areas. One area for further study is to explore why a large portion of international students do not engage more with library staff when they find the orientation helpful and the librarians approachable. Is it a language issue, a high level of library anxiety, or something that the library is doing that deters interaction? Another avenue of research is to investigate the international student experience from the perspective of the teaching faculty. Since the data gathered here is only from the student perspective, data from faculty could be an important voice in the conversation. The librarians at SIUE could also investigate the needs of students from specific countries. It is clear from the literature and these researchers’ experiences that lumping students from a variety of countries into one group is ineffective for addressing information needs at a more nuanced level. Yunshan digresses on this topic in her article, *New Thoughts on Library Outreach to International Students*, stating that “…a student from China may have very different needs than a student from Kenya…” (2009, p. 8). Indeed, researchers in this very study had different interactions with Canadian students, who experienced hardly any culture shock, compared to students from Bangladesh or Africa. These various avenues of inquiry could help to fill in some of the holes in the research, and allow for a more complete approach to serving international students at SIUE.
References


Appendix A. In-Depth Interview Guide

Introduction
Thank you for taking the time to sit down with me to participate in this research. My name is Melissa Burel and I am the Catalog Librarian here at SIUE and the purpose of our study is to explore the unique experiences of international students here at SIUE. I’m going to be asking questions about your time here at SIUE and please know that there are no wrong answers. I just would like to hear about your experiences from your perspective. If any question I ask causes you to feel uncomfortable or you would rather not answer it, just let me know and we can move on.

Recruitment to SIUE
This first section of questions is about the time before you came to SIUE. So think back to before you were a student on campus here

1. How did you hear about SIUE?
2. What made you decide that you wanted to attend?
3. How do you feel about your experiences so far?

Academic Experiences
Thank you for your responses. This next section of questions is in regards to your academic experiences so your time in the classroom, studying, and interactions with instructors:

1. Tell me about your experiences in your classes
   a. Possible probe: How do you feel about classroom discussions?
2. When you have an assignment that is perhaps challenging, what is your process for finishing that assignment?

The Library
Thank you for your responses. This next section of questions is in regards to your library experiences here at SIUE. Please keep in mind that there are no right or wrong answers, I just want your perspective.

1. What are the first three words that come to your mind when I mention the word library
   a. Probe: Tell me more about [word].
2. What is your experience like using the library?
   a. How do you feel about studying in the library?
   b. What has your experience been like interacting with people who work in the library?
3. How does this compare to your experience using the library in your home country?
Social
Thank you for your responses. This next section of questions is about your social life while you’ve been here at SIUE:
1. What kinds of things do you like to do for fun?
2. Tell me about the people that you enjoying hanging out with.
3. Tell me about the campus groups you’re involved in.
   a. Probe: What do you like about these groups?

Overall impressions
Thank you for your responses. This last section are just some general questions in regards to your experiences here at SIUE.

1. If you could change things about SIUE, what would they be?
2. Would you please describe one positive experience that you have had on campus?

Closing
Alright, well that is all for this interview. Thank you for your time and sharing your perspective with me. Before we end for today is there anything that you would like to add that perhaps I didn’t cover in this interview?

Here is my contact information so if you have any additional thoughts or questions please feel free to contact me.
Appendix B. Photo Diary Questions

The purpose of this research is to explore your experiences at SIUE. All responses will be kept confidential. Please take picture(s) of the items represented through these prompts. Once you have taken all of the desired photos, you will meet with a member of the research team to discuss your responses. The discussion of your responses could take anywhere from 30 minutes to 1 hour. Please remember that there are no right or wrong choices, we are just interested in your opinion.

1. What are some of your favorite places on campus?
2. Where do you hang out with your friends?
3. What are some of your favorite places off campus?
4. What are the places that you avoid or feel uncomfortable?
5. Where is your favorite place to study?
6. What are some resources that you use most often when studying?
7. What items do you always take with you to class?
8. What do you like about the library? (can include spaces, resources, etc.)
9. What are things that you don’t like about the library? (can include spaces, resources, etc.)

Photo Diary Interview Guide

Introduction
Thank you for taking the time to sit down with me to discuss the pictures that you took.

Questions
1. Please describe what’s in this photo.
   a. [followed by inductive probing]
2. What does this photo mean to you?

Closing
Thank you for your time and sharing your perspective with me. Before we end, is there anything that you would like to add that perhaps wasn’t covered in the photos?

Here is my contact information so if you have any additional thoughts or questions please feel free to email me.
Appendix C. Survey

1. How often do you visit Lovejoy Library?
   - [ ] Everyday
   - [ ] A few times a week
   - [ ] A few times a month
   - [ ] A few times a semester
   - [ ] Never

   *If Never Is Selected, Then Skip to Question 3*

2. What do you do when you visit the library?

<table>
<thead>
<tr>
<th>Activity</th>
<th>Every time I visit</th>
<th>Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check out materials</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Find articles</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Socialize</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Use computers</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Study alone</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Study in groups</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Do homework</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Take a break between classes</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Ask a librarian a question</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Eat a snack or meal</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Take a nap</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
<tr>
<td>Other: ______</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
</tr>
</tbody>
</table>
3. How often do you use the library's website, databases, or electronic resources outside of Lovejoy Library? (home, office, etc.)

- Everyday
- A few times a week
- A few times a month
- A few times a semester
- Never

4. How often do you use these library resources (either on or off campus)?

<table>
<thead>
<tr>
<th>Library Resources</th>
<th>All the time</th>
<th>Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Databases (EBSCO, JSTOR, etc.)</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Print books</td>
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<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Ebooks</td>
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<td>☐</td>
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<tr>
<td>Movies</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Desktop computers</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
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<tr>
<td>Cameras</td>
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<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Video recorders</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<td>☐</td>
</tr>
<tr>
<td>Audio recorders</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Music CDs</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Microfiche/film</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Other ______</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
5. How often do you use these library services (either on or off campus)?

<table>
<thead>
<tr>
<th>Service</th>
<th>All the Time</th>
<th>Often</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asking someone for help finding books</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Asking someone for help finding articles</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Asking someone for help with research</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Asking someone for help with citations</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I-Share</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Interlibrary Loan</td>
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<tr>
<td>Printing</td>
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<tr>
<td>Scanning</td>
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<tr>
<td>Faxing</td>
<td>○</td>
<td>○</td>
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<tr>
<td>The Writing Center</td>
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<td>○</td>
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<td>○</td>
<td>○</td>
</tr>
<tr>
<td>3-D printing</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>Other ______</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

6. When you have a research assignment, where do you most often begin your search?

- ○ Internet search engine (Google, Yahoo, Bing, etc.)
- ○ Wikipedia
- ○ Library catalog search
- ○ Library databases
- ○ Librarian
- ○ Library research guides/LibGuides
- ○ Looking at the books on the shelves
- ○ Other ________________________
7. How helpful are these resources in providing information to you about the library?

<table>
<thead>
<tr>
<th>Resource</th>
<th>Very helpful</th>
<th>Somewhat helpful</th>
<th>Neither helpful nor unhelpful</th>
<th>Somewhat unhelpful</th>
<th>Not helpful</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Student Orientation</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Classroom Instruction</td>
<td></td>
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<tr>
<td>Professors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>The Library Website</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Friends</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8. How much do you agree with the following statements?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neither agree nor disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I enjoy spending time in the library</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>I feel comfortable asking for help in the library</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel that the library has the materials I need to be successful in my classes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I feel confident finding materials in the library</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

9. What would you change about the library?
10. Please select your home country:
[Drop-down menu]

11. How long have you been in the United States?
- Less than 1 year
- 1-2 years
- 3-4 years
- 5 or more years

12. Please select the one that best describes you:
- Undergraduate student
- Graduate student
- Other ____________________

13. Sex:
- Male
- Female
- Other

Thank you for taking the survey. Please provide your SIUE email address below if you would like to be entered into the $100 prize drawing.