International Students' Expectations of Information Literacy Instruction

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Abstract. This paper presents the findings of a case study that investigated international university students' expectations and experiences of information literacy across two countries. The results from this case study provide insights that can be utilized by librarians working with international students, to plan and develop their information literacy instruction classes and programs. Armed with an awareness of what international students' expectations and experiences with information literacy programs are, librarians can develop more meaningful instruction that better meets the information needs of international students. Moving beyond the pilot survey, the researchers aim to improve the survey instrument and collaborate with librarians in several countries to collect data from institutions and universities around the world. Exploring and comparing results from a truly global population will only enhance library services to international students and help librarians better understand the specific information needs of international students.

Keywords: International students · Information literacy · Case study · Survey

1 Introduction

As the internationalization of higher education continues to flourish, which recently expanded from 1.3 million students studying outside of their home country in 1990 to 5.0 million studying away in 2014 [1], colleges and universities are increasingly concerned about how to best serve this student population. Academic libraries are no different. There has been a plethora of literature, both scholarly and non-scholarly, published on international students and various aspects of the academic library, in hopes of providing better services and programs to this population. A recent systematic review of library and information science (LIS) literature on international students and academic libraries found that while there are numerous publications on it, there is a lack of original research conducted on the topic. Most published pieces focused on "what we did" scenarios [2], where authors typically described a successful lesson, activity, or outreach event targeting international students. The authors called for LIS researchers and practitioners to incorporate evidenced-based research, results, and recommendations into their practice to improve services to international students.

Working to address this gap in the literature, this paper presents the findings of a case study that investigated international university students' expectations and experiences of information literacy across two countries. A case study was selected as the best possible research method in order to gain both quantitative and qualitative feedback from respondents. The pilot study included the creation and distribution of an online survey that measured international university students' experiences and expectations of information literacy instruction, key questions and topics addressed include:

- what is information literacy
- expectations of the benefits of research skills to academic success and their future career
- expectations of research assistance
- expected content in library instruction sessions
- previous experience of information literacy.

The pilot study was conducted at two different academic institutions located in two separate continents, Edith Cowan University located in Western Australia and New York University Abu Dhabi (NYUAD) located in Abu Dhabi, United Arab Emirates (UAE). Edith Cowan University serves over 27,000 undergraduate and graduate students, and 4,000 international students from over 100 different countries attend the university annually [3]. NYUAD is composed of 1,050 undergraduate students representing 110 different nationalities [4]. Both institutions have culturally diverse campuses with unique student populations. The results from this case study provide insights that can be used by librarians working with international students, to better plan and develop their information literacy instruction classes and programs. Armed with an awareness of what international students' expectations and experience of information literacy programs are, librarians can develop more meaningful instruction that meets the information needs of international students.

2   Literature Review

There is a growing body of literature related to international students and academic libraries, and this literature review intends to provide a brief overview of the topic. According to a systematic review of LIS literature on information literacy and international students by Houlihan et al. [5], there were only 23 scholarly articles published between 1990 and 2014 that utilized authentic research methods to investigate information literacy and international students. This study also revealed that library instruction, library experience, and information seeking were the most popular research topics addressed within the data set. The authors also identified key recommendations on how to best serve international students from the data set which included, campus collaboration, staff training, assessment, cultural awareness, and library instruction [5].

Much research has been conducted on enhancing library instruction efforts to increase student participation, satisfaction levels, and learning within library instruction sessions and outreach programs targeted to international students. Language-based recommendations are numerous. In order to enhance library instruction sessions for

international students, Amsberry [6] made several recommendations related to language including the notion that library instructors should clearly pronounce all words, use simple grammar and vocabulary, eliminate jargon, and utilize student feedback, in order to better communicate with international students. Conteh-Morgan [7] presented a series of suggestions for the incorporation of language acquisition theories into library instruction sessions in order to improve student learning. Martin et al. [8], collaborated with English as a Second Language (ESL) instructors to embedded information literacy skills and instruction into ESL composition classes. The program was very successful, and allowed international students to feel more comfortable around librarians. There is also some literature that looks at international students' knowledge of academic integrity and conventions. Han [9] found in his study on the information literacy development of higher research ESL students that the scholarly reference style and academic requirements for quality of sources in Australia differed from the students' home country of China. Hughes [10] also found that international students were unused to the academic conventions that were required of them, such as referencing and plagiarism.

Orientating international students to the academic library is another instruction area ripe with literature. Hoffman and Popa [11], wrote about the need to provide personalized library instruction for international students, and encourage staff training so staff are better able to help identify when international students were struggling with library resources and services. Liestman and Wu [12] experimented with offering library orientations for international students in their native language, and suggested further research on library instruction and orientations in students' native tongues. Lunger and Kubo created a tiered orientation program that consisted of "a campus orientation presentation, library orientation and tours, information literacy workshops, and international peer-advisor training" [13, p. 605]. Assessment data concluded that international students who used the library were more likely to ask for help [13, p. 616].

3   Method

This case study presents the findings of an exploratory study that was conducted in Australia and the UAE, which investigated international students' expectations and experiences of information literacy. The overarching aim of the pilot study was to distribute a survey at two global universities, collect feedback and data, improve the survey instrument, and expand the survey to include other universities around the globe, while also increasing the number of survey participants. The online survey, conducted via Qualtrics, consisted of five demographic questions and thirteen questions related to information literacy instruction, including previous, current, and future expectations and experiences of information literacy. In Australia, convenience sampling was used to disseminate the survey, and it was disseminated through the library at Edith Cowan University. The survey was added to the library news webpage and promoted in information literacy classes, as well as emailed to lecturers to disseminate. There was a low rate of return. In the UAE, the survey was disseminated on behalf of the NYUAD Library through emails from select faculty members to students enrolled in their classes. There was an intermediate return rate.

4   Findings

This section provides detailed information about the survey data related to demographics, prior library experience, understanding information literacy, and expectations of information literacy.

4.1   Demographics

A total of 49 international students partially or fully completed the pilot survey, and demographic data from both institutions varied. Students were allowed to abstain from any question, thus making results of respondents vary by question. Twenty-five international students completed the survey in the UAE and 24 international students completed the survey in Australia. The authors defined an international student as one who studied outside his/her home country. Data showed that participants from the UAE pilot survey were from 24 different countries including, Bulgaria, Ethiopia, Ukraine, and India. Thirteen (52%) of participants were male, and 21 (84%) of students were between the ages of 18–21. The respondents were studying a wide array of academic disciplines, most heavily in science and economics. All students were enrolled in undergraduate programs, and it should be noted that NYUAD is primarily an undergraduate campus. In the Australian survey, students who completed the survey hailed from the Middle East, including Iran, Saudi Arabia and Kuwait, Asia, including India, China, and Vietnam, and Europe. 15 (63%) of the respondents were female with 13 (54%) of the respondents being over 30. The respondents were studying in a range of majors and degrees including undergraduate, Masters and Ph.D. degrees in education, nursing, marketing, and computer science.

4.2   Prior Library Experience

Understanding international students' prior information literacy experiences is crucial to understanding how to best serve this population. As seen in Fig. 1, there were mixed responses to how often international students visited a library prior to arriving at university. 11 (48%) of the students studying in Australia had visited a library more than once a week prior to coming to university, with only one student (4%) having no access to a school library and three (13%) never having visited a library. Of the 24 students in the UAE who responded, 12 (50%) students stated they only occasionally used the library prior to arriving at university. Six (25%) students used a library more than once a week and only one (4%) respondent did not have access to a library.

Many students had mixed responses about being previously taught research skills by a librarian prior to arriving at university. 12 (52%) students in Australia and 13 (54%) students in the UAE had never participated in a library instruction session. Four (17%) students in Australia reported having been taught a library research skill through a one-on-one consultation with a librarian, while seven (29%) students in the UAE attended one - four library workshops with a librarian in high school.
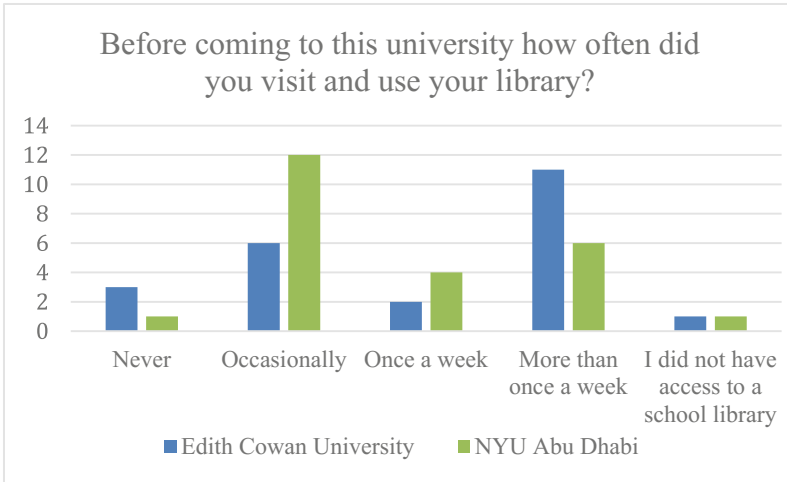
Fig. 1.   Before coming to this university how often did you visit and use your library?

4.3   Understanding Information Literacy

There were 24 responses in the Australian survey and 25 responses in the UAE survey to the question: what is your understanding of information literacy? Respondents were able to select more than one definition. As you can see in Fig. 2, 16 students in Australia (67%) and 20 students in the UAE (83%) understood information literacy as: recognize when information is needed and have the ability to locate, evaluate, and use information effectively. In the Australian survey, 11 students (46%) reported that information literacy is: being able to use information to learn something; and only four (17%) respondents stated that they had no understanding of information literacy. While in the UAE survey, 12 respondents (50%) stated that information literacy is: being able to use information for class; and only three respondents had no knowledge of information literacy.

When it came to answering the question: how important do you think having research skills is for completing your degree? 22 (95%) of the respondents in Australia felt it was important or very important, and 21 (67%) respondents in the UAE felt it was important or very important. Overall, only one (4%) of the respondents in the Australian survey thought research skills were unimportant for passing his/her degree. 18 (78%) of the respondents in Australia and 22 (70%) respondents in the UAE felt that library services were extremely important or important to the success of their studies.

The students were asked, as international students, what barriers they encountered when they began studying at their respective universities. Respondents could select more than one answer. As seen in Table 1, the biggest barrier for both countries was academic writing. For Australian students the next biggest barriers were referencing and finding resources in the library. For the UAE students, the next biggest barrier was referencing followed by conducting research.
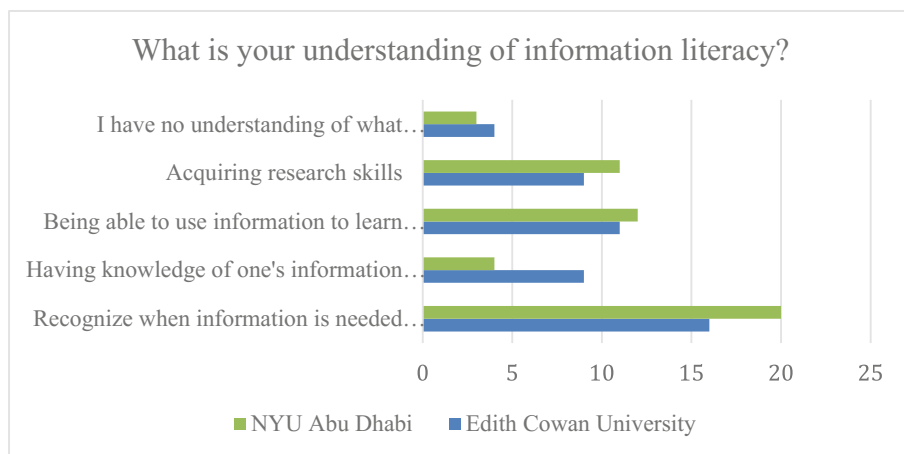
Fig. 2. What is your understanding of information literacy?

Table 1. What barriers did you encounter when you started studying at this university?

Barriers	Australia responses	UAE responses
Reading in English	4	2
Finding resources in the library	12	7
Academic writing	17	13
Understanding academic integrity rules at the university	9	5
Conducting research	6	9
Referencing and citations	13	10
I encountered no barriers	0	3
Other (please specify)	4	2
Total	**65**	**51**

4.4 Expectations of Information Literacy

Students were also asked what services they expected from the library, as well as what library services they could expect from a one-on-one interaction with a librarian. Respondents could select more than one response. As seen in Table 2, students in both countries felt that providing access to books and databases was the most important library service followed by access to computers and study space. Students also specified that they wanted more quiet study space and longer borrowing times. When it came to one to one interactions, the majority of Australian students felt that librarians should give them assistance finding resources for assignments followed closely by teaching them how to use the library's resources. With the students studying in the UAE, it was the reverse with the majority of students expecting librarians to assist them with finding resources for assignments closely followed by teaching them how to use the library's

resources. Students also specified they would like more subject specific advice related to research and to be shown more advanced searching skills.

Table 2. What services do you expect from a library?

Library services	Australia responses	UAE responses
Computers and internet	18	24
Orientation tours	8	5
Providing books and databases	23	24
Information literacy and research skills classes	16	12
Study space	18	23
Other (please specify)	4	0
Total	**87**	**88**

Respondents were asked about which library workshops they thought would help them with their studies, as well as if they thought there should be specific library workshops for international students. Many of the students in Australia thought that using library databases, finding resources, and writing skills would help them most on their studies. The respondents in the UAE also felt that using library databases, writing skills, and using citation management software would be useful workshops for them. The other responses stated that workshops on resources for systematic reviews would be helpful.

In response to the question on whether there should be specific library workshops for international students, 13 (57%) of the students located in Australia and 12 (50%) of students located in the UAE felt that there should be specific library classes for international students. Students participating in both surveys suggested the most important workshop to be offered should be how to use online library databases. The UAE survey responses also highlighted the importance of academic writing and citations. Finally, respondents were asked how important they think information literacy/research skills are to their future careers. Both surveys yielded similar results. Twenty-one (92%) of the respondents in Australia and 20 (80%) respondents in the UAE felt information literacy and research skills were important or very important to their future career. No respondents thought information literacy and research skills were not at all important.

5   Discussion

This section provides further insight into information literacy expectations, prior library experience, and collaboration.

5.1   Information Literacy Expectations

In general, students in both Australia and the UAE had similar expectations of both the academic library and librarians. International students, included in this pilot study, expected libraries to provide access books and databases, computers, and study spaces. The respondents' main expectations of one-on-one interactions with librarians were how to use the library's resources and assistance finding resources for assignment. In both

countries barriers international students faced included academic writing, referencing, finding resources, and conducting research. These barriers also translated into the suggested library workshops for international students. Students suggested workshops in finding resources and using library databases, writing skills, and using citation management software. The finding that referencing is a barrier correlates with other authors' findings that international students often lack knowledge of referencing and citation rules and need instruction in finding resources for their research [9].

5.2 Library Experience

In the Australian survey, although most international students had visited a library before coming to university, most of the students had never attended a library research class before coming to the university. On the other hand, a majority of respondents located in the UAE stated they occasionally visited a library prior to arrival at university (50%) and never attended a library workshop (46%). This is useful data for librarians to be aware of as the knowledge that international students have limited and varied previous experience with libraries. Instructional experiences can influence how topics for information literacy programs and one-on-one sessions are developed. The international students in this study, with limited previous research skills training, stated they would like information literacy workshops on topics, such as finding library resources and citations. Most international students also feel there should be specific library classes for international students. This fits with Hoffman and Popa [11], who advocate for the need to provide personalized library instruction for international students. Creating active and engaging library workshops will better serve this population.

5.3 Collaboration

Since international students, included in this case study, ranked academic writing skills as one of their main barriers to their academic success, along with finding resources and referencing. This data provides unique opportunities for librarians to collaborate with academic writing staff, in order to provide instruction programs that meet both the writing and information literacy needs of international students. The NYUAD Library reiterates the importance of critical research and critical writing by collaborating on outreach programs, such as capstone boot camps, research breakfasts, and orientation efforts, with the Writing Center. The relationship is so strong that the Writing Center moved into Research Services, located in the library, in 2015. Zhang [14] suggested that libraries should offer writing workshops, in addition to traditional library workshops. There are endless possibilities for on-campus and off-campus partners to create innovative programming and instruction to better prepare international students for academic success.

6 Conclusion

This pilot study on international students' expectations and experiences of information literacy seeks to fill a gap in LIS literature by using an evidenced-based research method to better understand this student population. Study findings show that international students have varied past and present expectations and experiences with information literacy, but a majority of respondents agreed that information literacy and research skills are helpful to their future careers. The findings also suggest that the international students who participated in the survey, came to university with little prior information literacy instruction and face barriers to academic success, including academic writing, finding resources, and referencing. LIS researchers interested in investigating their international student population and information literacy may want to recreate this pilot survey at their home institutions. The authors also advocate for the use of mixed methods when researching this population. Interviews, focus groups, and research diaries would add an interesting dimension to this topic and contribute to a growing body of work on this topic. The pilot study results, as well as future survey results, will be of great use to the library community as librarians can use the results to prepare information literacy instruction that meets the needs of international students as well as establish collaborative programs with academic writing departments.

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