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Instructor perceptions of student information literacy: comparing international IL models to reality

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Abstract

This study assesses the information literacy (IL) perceptions of instructors at a technical college in the Middle East, the College of the North Atlantic - Qatar. Students at this college are instructed in four areas of study – engineering technology, information technology, business studies and health sciences – which takes place exclusively in English and uses a Canadian curriculum. A web-based survey sent to instructors asked questions in two general areas on their perceptions of student information literacy based on the Society of College, National and University Libraries (SCONUL) definition. Initially, over half of the respondents believed that their students were information literate. However when asked a series of questions about each of the seven IL skills identified by SCONUL, there was a large discrepancy between what skills instructors wished their students achieved, versus what was actually achieved by the end of their programme. Students' inability to critically evaluate sources of information was seen as the weakest skill by instructors and was considerably lower than the skill level reported by university professors in similar studies. Instructors also conveyed their belief that students lacked strategies when searching for information. When compared to faculty perceptions of students in universities, overall perceptions of IL competency of college students in this study are lower. The study reinforced the need to provide students with tools/strategies to cope with large volumes of information and, when searching, to select appropriate and credible sources of information for both academic and personal uses.

Keywords

information literacy; information literacy assessment; information literacy models; faculty perceptions; English as a foreign language; technical education; vocational education; Qatar

1. Introduction

Information literacy and its importance related to the success of students around the world was recently reconfirmed in the 2015 New Media Consortium Horizons Report on Libraries. An expert panel from the Consortium stated, "While libraries have always supported academic institutions, there is a mounting case that librarians should play a more significant role in the development of information literacy skills" (Johnson et al. 2015). In this author's opinion, librarians can only play a more significant role in the classroom when faculty, instructors, and leadership all agree that information literacy is, in fact, a laudable goal. In order for librarians to work and collaborate with faculty to teach information literacy skills and to graduate information literate students, librarians need to understand what faculty and instructors perceive are the information literacy competencies of their students, what information literacy skills the instructors are already teaching and what skills they think the students require the most assistance with.

Discussions and studies surrounding faculty and instructor perceptions of student information literacy in higher education have existed in the literature for more than 20 years. The work of Jacqui Weetman DaCosta (2010), Eleonora Dubicki (2013), Sophie Bury (2011) and others have been cited by many in this particular area of study. However, the author has found a lack of

research regarding instructor perceptions in technical or vocational colleges. Further, the vast majority of studies have taken place in North America, Australia and the United Kingdom.

The objectives of this study are to reveal what the instructional staff at this two-year technical college are experiencing in their classrooms under the lens of information literacy. Do instructors in this setting want their students to be information literate upon graduation? What IL skills are they introducing and reinforcing in their classrooms? Is the instructor perception of college students' skills different from the faculty perception of university students' skills?

Once these perceptions are revealed, it should provide a path forward for library staff to be more focused on teaching the information literacy skills that instructors have identified as needed by their students. Additionally, it is quite possible that this survey will also increase awareness of information literacy and of the library in general, and consequently, may result in increased use of overall library services.

It is my belief that at present, post-secondary students in Qatar face significant hurdles in using libraries and information resources due to lack of prior exposure to basic research, critical reading and libraries which is exacerbated by language challenges.

1.1 Setting

For more than a decade, western universities and colleges have been invited to set up campuses in Middle Eastern countries such as Qatar, Saudi Arabia and the United Arab Emirates and to deliver instruction based on European and North American curriculum. This study takes place at the College of the North Atlantic-Qatar (CNA-Q). Its parent institution is in the province of Newfoundland, Canada. Except for the Technician Preparatory Program developed for one of the College's stakeholders in Qatar, the curriculum offered in all four Schools by CNA-Q is identical to the curriculum offered to students in Canada. Requirements for term papers and final year projects are identical.

CNA-Q is a technical college. It awards certificates and diplomas on graduation from one, two and three year programmes administered by its four Schools: Business, Information Technology, Health Sciences and Engineering. As with most non-degree granting institutions in the Middle East, students must have completed secondary schooling to be eligible for enrolment. To assist students, many colleges in Middle East offer academic upgrading to aspiring students to improve their entry grades and to support students in areas like science, mathematics and English language proficiency. Currently, nearly 40% of CNA-Q instructors are devoted to academic upgrading or EFL (English as a Foreign Language) instruction. Graduates from technical colleges are recognised as dental hygienists, paramedics, bookkeepers, bank tellers, chemical laboratory technicians and respiratory therapists.

CNA-Q has a unique instructor body and student body. Instructors, support staff and management are hired on short-term contracts ranging from one year to three years. At the end of the contract, instructors can choose to sever their relationship with the employer or to compete again for their position. Consequently, there is a continuous turnover of instructors. Hiring preference for instructors is clearly stated to favour Canadian citizens with 'industry experience' and when a suitable Canadian candidate is not found, employees from other areas of the world are then hired. Instructors from other western countries are preferred as the instructional environment would be similar to CNA-Q's. The only constant (from the perspective of the employer and the students) is the Canadian curriculum, which in this particular situation favours one-shot library instruction. Making any changes to the curriculum to integrate information literacy throughout a student's programme would take considerable consultation and agreement from deans of the affected Schools in Canada and Qatar and the industry stakeholders.

Delivering instruction based on a Canadian curriculum and standards to students whose secondary schooling often does not compare to students eligible for college entry in Canada has proven challenging for both librarians and instructors. The curriculum, as implemented in Canada assumes that a child, by the age of 10 will have written a short report about a mammal or a fish or a country, will have used information from an encyclopaedia or book to do this and created a rudimentary bibliography. The curriculum assumes that later on, the student will have considered alternative points of view in classroom discussions, will have studied British, Canadian or American Literature and have read more than one full length novel. Short essays will have been written examining aspects of history, literature, life or the sciences. Critical analysis of news, magazine articles and lectures are incorporated into Canadian classrooms. This kind of student experience is unfortunately not common to students entering CNA-Q's programme of study.

Schools in Qatar generally instruct using a rote learning methodology. This memorization based school system has profound negative implications for critical thinking skills. School libraries, if they do exist, are mostly closed-shelf warehouses and are subject to censorship (Sheble and Walker 2016).

Despite a population of 2.1 million at the time of this study, of which approximately 12% are citizens (Ministry of Development Planning and Statistics State of Qatar 2015), there is a limited public library system. Small libraries do exist which are the result of private individuals opening up their personal collections to the public resulting in unbalanced, subjectively collected content. The Qatar National Library (QNL), when formed initially in 1962, is no exception. Fifty years later, in 2012, QNL was placed under the Qatar Foundation for Education, Science and Community Development, a branch of the State government. Like other National Libraries, it now collects the publishing output of the country and shares its collection with citizens and residents of Qatar. Similarly, QNL acts as both a stakeholder and participant in national discussions and efforts promoting library activities in the country. However as of 2016, QNL does not have a physical facility nor does the city of Doha, Qatar's capital have a central public library to enrich its citizens or residents. Consequently, most students in post-secondary institutions in Qatar have not had the benefit of a public library (in the western sense) in their country. Indeed, staff at the CNA-Q library frequently need to explain the difference between a library and a bookstore (there is no distinction between these words in Arabic), or an index versus table of contents to the literate, but non-reading, students of the College.

The student body consists of Qatari citizens as well as foreign nationals who are residents of Qatar but citizens of other countries who wish a Canadian education. Priority enrolment is reserved for Qatari citizens. English is not the first language of the students, but is the language of instruction. Students must reach a specified proficiency in English prior to entry into the regular College programmes. Students function in an EFL environment, where, as non-native speakers they are using English in the classroom, but are operating in a non-English environment outside of the College. Both citizens and foreign nationals make up the student body with the highest proportion of Qatari citizens in the School of Engineering and the lowest proportion in the School of Health Sciences.

In summary, information literacy instruction at CNA-Q faces many challenges, not the least of which includes:

- A western curriculum, favouring one-shot instruction for which students are poorly prepared
- Students with little to no previous library experience
- Frequent turnover of instructors and staff during the students' 2-3 year programme.

The staff of the CNA-Q library have felt a professional and ethical duty to improve the information literacy skills of the College's students. But, did the College's instructors feel the same level of responsibility, or was information literacy an unfamiliar concept to them?

2. Literature review

Understanding what our instructors need from librarians in an instructional role is just one aspect of demonstrating the value of libraries at a post-secondary institution. If we have a better understanding of what our instructors perceive to be a weakness in their students, librarians can approach IL instruction with greater focus, thus serving the students and the institution as a whole in a greater capacity. (For the purpose of clarity, the term *faculty* will be used to describe those teaching in a university setting, while the term *instructor* will be used to describe those teaching in 1/2/3-year technical or vocational programmes.) This review of the literature was limited to those studies in English over the last 20 years that collected information on faculty and instructor perceptions of student information literacy skills as defined by either institutional or international standards.

A review of the literature revealed five major themes:

- The research primarily takes place in university settings and there is little research supporting the perceptions of instructors outside that realm.
- Research is heavily biased toward the perceptions of faculty in the 'developed' world – the United Kingdom, the United States, Australia and Canada.
- Faculty overwhelmingly believe that achieving a state of information literacy is a laudable goal.
- Studies of faculty have shown that they believe their students' weakest skill is in the ability to critically evaluate and subsequently, compare information sources for credibility.
- Studies also show that like many skills, with practice students become better. In other words, students in their first years of academic study are weakest and as they progress in their studies, their information literacy skills improve. This has consequences for librarians' and instructors' expectations of students in post-secondary academic institutions.

2.1 Lack of research in the technical and vocational college setting

As noted, most of the surveys that focus on academic settings are concerned with faculty experience when instructing undergraduate students pursuing four-year degrees and graduate students pursuing Masters degrees. The only study which focused specifically on instructors of students in a technical, vocational, or community college programme was that undertaken by Baker (1997). Baker looks specifically at the inclusion of library activities in assignments and the level of importance that instructors placed on student use of the library. The study did not look at specific skill sets and instructor perceptions of these abilities.

What was discovered in this setting (a community college) was that 60% of the instructors required students to conduct independent research in the library, and at the same time there was strong support for librarians in the role of instructing students to locate information (Baker 1997, p. 180). While not addressing specific information literacy skills, the role of the library and librarians was recognised as important in student success.

2.2 Studies focus on the perceptions of university faculty in the western world

There are numerous studies of faculty perceptions in Australian, British, Canadian and American universities include those of Canon (1994), Leckie and Fullerton (1999), Rader (2002), Singh (2005), Weetman DaCosta (2010), Bury (2011), Conley and Gil (2011), Saunders (2012), Dubicki (2013), Goldenstein and Kearley (2013) and recently Jackson, MacMillan and Sinotte (2014). These studies have found that teaching faculty have great hopes and expectations for their students, however, the reality has shown that students are not as information literate as is hoped. Jacqui Weetman DaCosta's 2010 study in particular was crucial in informing this study. Further,

the survey instrument was found to align with our library's goals to have a greater understanding of what was happening in College classrooms.

Revealing how information literacy is perceived outside of the western world can give us indicators of its importance internationally. In contrast to the abundance of studies based in the western world, only two studying faculty/instructor perceptions outside of the west were found and the opportunity for further study in this area of the world is quite evident.

The first of these studies, undertaken by Lwoga (2013) took place in Tanzania with faculty in the area of health sciences. Lwoga notes that the university where her study took place has integrated information literacy into its curricula but that even in 2013 this was relatively rare at most schools and universities in Africa. Kousar and Mahmood's study (2015) specifically states that awareness of information literacy and the development of an IL practice is in its initial stages in Pakistan, but that the field is well established in developed countries. Despite this, the authors moved ahead with their study, using Association of College and Research Libraries (ACRL) IL standards.

These two studies evidence an area of growing international concern in post-secondary institutions – that despite the efforts of many, faculty believe that graduating students demonstrate weak information literacy skills.

2.3 Faculty believe in the importance of information literacy

In studies of faculty perceptions, when specifically asked, studies reveal that faculty support the statements of librarians and library associations around the world – being information literate is important. Canon (1994), Leckie and Fullerton (1999), Weetman DaCosta (2010), Bury (2011), Saunders (2012) and Nilsen (2012) all used adjectives like 'unanimous,' 'overwhelming,' or 'unprecedented' to describe the level of importance faculty place on information literacy for their university students.

Both Bury (2011, p. 51) and Jackson, MacMillan and Sinotte (2014, p. 2) note in their studies that considerable literature backs up this perception, however, it is noted again that this literature derives its evidence from the university environment, not community or technical colleges.

Do a group of instructors who teach in a practical, hands-on technical environment place as much or any value on information literacy? If students are not expected to perform research in their future, or even in their academic programme, do instructors place any weight on the value of information literacy? Is information literacy accepted as important across all levels of academic experience?

Seeing these extraordinarily high levels of agreement by university faculty should be no surprise – it is not unlike saying that we agree that school is important, or that water should be clean. It also affirms the efforts and countless hours of work that committees around the world have taken to carefully craft clear, straightforward and understandable definitions and explanations of information literacy concepts that are understood by the community and our academic colleagues. Those of us who work with students in a higher education setting truly want the best for them, and information literacy is just one of the skills we want successful students to have.

2.4 Faculty believe students struggle most with evaluating content

Numerous studies have confirmed that faculty do not believe their students have sufficient critical thinking skills or are objective enough to critically evaluate content for inclusion in assignments.

Lwoga's Tanzanian study notes that university faculty instructing students in the field of health science perceived students' abilities to critically evaluate information was amongst their weakest skills, with more than 55% of the faculty stating the skill needed further development (2013, p. 8).

In evaluating assignments that students had completed, faculty noted that only 10.8% of the students were able to critically evaluate the information that they had chosen to use in their assignments (Lwoga 2013, p. 10).

The transnational survey by Weetman DaCosta (2010) employed the SCONUL definition of information evaluation when querying faculty in both the USA and the UK. Faculty in the Architecture Faculty of De Montfort University felt that only 27% of graduating students had the ability to evaluate information for credibility, while the Art & Design faculty felt that 52% of their students were able to evaluate information (2010, p. 209). In the US portion of the survey, university faculty across all disciplines at The College New Jersey, felt that 37% of their students had acquired the skill of objectively evaluating information by the time they graduated. In both locations where this survey took place, faculty have admitted that half, or even less than half of the students who graduate from their universities can effectively compare various sources of information, evaluate it and consider its bias or accuracy. Another survey noted that dependant on area of instruction, the difficulty in evaluating sources of information can vary, with students in the sciences needing to have a strong foundation in the scientific method in addition to evaluative skills when considering the accuracy and authority of information resources (Saunders 2012, p. 232).

In looking at student's abilities to evaluate un-filtered information from the internet, faculty members in Singh's study reported weak skills in the part of their students (Singh 2005, p. 304). This study, which looked at future journalists and communicators showed a disappointing result in evaluating information, as students in this area move into occupations that can have higher levels of public profile and therefore, implicit trust on the part of the public. Elsewhere, faculty know that the inability to evaluate information critically on the part of their students is an instructional challenge and some university libraries in Canada have reported that it is this skill in which they are asked to instruct the majority of the time (Bury 2011, p. 50).

To support this instruction, librarians have developed various mnemonics to give students assistance – acronyms like RADAR (Relevance, Authority, Date, Appearance, Reason for writing) and CRAP/CRAAP (Currency, Relevance, Authority/Accuracy, Purpose) are employed over and over in IL classrooms around the world. However, librarians at CNA-Q believe that without considerable instructional scaffolding, the objectivity or critical thinking skills to support use of these guidelines, the mnemonic tool is lost on most students, especially in one-shot instructional sessions that by their very nature do not allow for practice or reinforcement.

2.5 Faculty see improvements in students' IL abilities in later years

The literature also shows consistently that the longer a student spends in post-secondary education, the greater the student's ability to critically evaluate information. Naturally, this means that first year students entering post-secondary education will have weak information literacy skills and are in greater need of instructional assistance. Entry level students cannot be expected to learn information literacy skills independently and without instructional support (Jackson et al. 2014, p. 10). As researchers have found, IL skills are developed slowly over time, with students gaining greater skills and abilities each successive year in post-secondary education. Early support, instructional scaffolding and practise will steer students toward greater information literacy success.

Studies documenting the information literacy challenges faced by first and second year university students are abundant. When considering the success of students in evaluating and using information across the various years, faculty in Leckie and Fullerton's study (1999) stated that even in their 3rd and 4th years of university, students still have room for improvement. This 1999 study was one of the earlier studies looking at students' abilities in each of their four years of university. The authors note, however, that faculty did not distinguish between evaluating and using versus

finding and retrieving skills and rated students very similarly in the four skills. The only notable difference was the improved skills students showed year over year in university.

A cross-Canada study of university faculty perceptions in 2012 showed similar patterns noting very plainly that faculty in Canada believe that only 10.3% of Canadian students in their 1st and 2nd years of university can “find and critically evaluate information relevant to their academic level” (Nilsen 2012, p.7). In their 3rd and 4th years, faculty witness an improvement in this skill, ranking 40% of their students as ‘good’ or ‘excellent’ in critically evaluating information. However, this still means that only 60% of graduating university students in Canada can evaluate the information resources they retrieve in a search.

Lwoga’s Tanzanian study revealed that faculty saw year-over-year improvement in their students’ information literacy abilities (Lwoga 2013, p.7). In other words, student’s information literacy abilities were at their lowest in the first year of university, and gradually improved by their final, graduating year. This is significant when one considers a technical or community college. Based on Lwoga’s study, information literacy skills by graduating students at CNA-Q are likely to be lower than graduating university students.

In Pakistan, Kousar and Mahmood studied the faculty perceptions of information literacy skills in postgraduate engineering students (2015). The study cemented the notion that information literacy skills improve the longer one is a university student. Just as Lwoga found a perceived difference between first year and graduating university students, Kousar and Mahmood reported faculty perceptions where the information literacy skills of Ph.D. students were higher than post-graduate students (2015, p. 56). This again, has significant implications for any studies that take place in a technical or community college setting.

3. Method/research procedures

The library at CNA-Q has aligned itself with the SCONUL Seven Pillars of Information Literacy standards (SCONUL 2011) as its preferred model. Consequently, this survey of instructor perceptions will relate to the SCONUL standards and use the Seven Pillars in describing aspects of information literacy to CNA-Q instructors.

SCONUL defines information literacy by describing the skills an information literate individual has: “Information literate people will demonstrate an awareness of how they gather, use, manage, synthesise and create information and data in an ethical manner and will have the information skills to do so effectively” (SCONUL 2011, p. 3). The Seven Pillars (Identify, Scope, Plan, Gather, Evaluate, Manage and Present) are explained in considerable depth in SCONUL’s document and instructional aspects of the Seven Pillars were explored in this study.

In a review of the literature, the Weetman DaCosta (2010) study had similar goals to the study proposed at CNA-Q. Weetman DaCosta asked instructors what their perceptions of student information literacy skills were and if they were integrating any kind of information literacy instruction in their classrooms. The CNA-Q Library was similarly interested in learning what our instructors understood to be information literacy, if the instruction of these skills was taking place by School instructors and what instructor perceptions were of students’ IL capabilities. After seeking permission from Jacqui Weetman DaCosta to use some of her survey questions, it was adapted to fit local conditions and objectives (see Appendix).

CNA-Q’s Institutional Review Panel and Ethics Panel both approved the survey prior to its delivery to instructors. CNA-Q’s Vice-President Academic and the College President were both briefed on the goals of the survey and agreed that the information to be gathered was important to the overall goals of the College.

The survey consisted of three major areas: the first section collected demographic information on instructors; the second section surveyed instructors perceptions of student information literacy and the final section asked instructors if information literacy was being addressed in the classroom and sought suggestions on how information literacy skills could be improved in general and for students. The survey (using Survey Monkey software) was distributed through an email message sent to 'all instructors' in September 2015. Consequently, individuals self-selected when completing the survey. New instructors or instructors without experience teaching EFL students were automatically disqualified, which resulted in lower level of participation in the later part of the survey.

3.1 Participant profile

The College had a total of 319 instructors when the survey took place. Of these, 156 instructors participated in the survey, or 49%. The level of participation by each School ranged from 43%-53%.

Figure 1: Levels of participation

School	Total Number of Instructors	Percentage of staff	Number of Participants	Participation Level
Business	54	17%	29	53%
Health Sciences	38	12%	17	45%
Information Technology	18	6%	9	50%
Language Studies and Academics	125	39%	54	43%
Engineering and Technician Preparatory Program	83	26%	37	46%
Did not identify			10	
	319	100%	156	

The College emphasises instruction from industry experts. Seventy-five percent of the instructors had a four-year bachelor degree, a master's degree or a doctoral degree (Figure 2). Of those, 94% of the instructors had been educated in a 'western' system.

Figure 2: Education of instructors

What is the highest level of education you have completed?	Response Percent	Response Count
Some High School	0.0%	0
High School graduate	0.7%	1
Some College	0.0%	0
College diploma, certificate, apprenticeship or ticket	11.0%	16
Some University	3.4%	5
University degree (4 year)	17.2%	25
Some Post-Graduate University	9.7%	14
Post-Graduate Degree	49.0%	71
Some Doctoral experience	3.4%	5
Doctoral degree	5.5%	8
Other		9
<i>answered question</i>		145
<i>skipped question</i>		10

3.2 Limitations

Understanding the success of information literacy initiatives and instructors' perceptions from an international perspective opens this study to many areas of exploration. This study focused exclusively on the instructors' perceptions of student IL abilities and the following were deemed not to be within the scope of this study:

- the region's public school system
- prior information literacy instruction to students in the public school system
- prior experience students may have had with libraries
- the rote learning methodology prevalent in this region that entering students have been exposed to (Weber 2014)
- cultural issues that influence a student's relationship with instructors and information
- the region's strong oral traditions
- lack of publishing by citizens of the region
- student motivation (free tuition and guaranteed jobs upon graduation are common for citizens)
- the impact of the Censorship Board on availability of information
- formal code of morality and highly conservative attitudes
- a student's first language
- students' basic communication skills versus academic communication skills, or
- a society focused on consumption rather than production (Kamrava 2015)

The environment instructors work within obviously impacts information literacy instruction, however, without extensive examination the following was not within the scope of this study:

- Do College instructors have any flexibility in course delivery or assessment?
- Do College assignments assess IL skills or assess communication skills?
- Does the curriculum allow for assessment of IL?
- Does one School place a greater influence on IL skills than another?
- Does institutional recognition of information literacy make a difference in the instruction of this skill?

The instructors whose perceptions were measured are not homogenous and these differences could also be further studied:

- Does this academic background of the instructors include experience using libraries?
- Do instructors have biases towards various sources of information?
- Do personal values of instructors versus professional application of information literacy differ?
- Does an instructor's perception of the importance of IL impact how it is taught in their classroom?
- Does unfamiliarity of information literacy concepts impede an instructor's ability to deliver 'library instruction' or 'information literacy'?

This study focused very specifically on the perception of instructors on students in a 2-3 year technical college using the SCONUL IL definition and 'Seven Pillars' as a structure to direct exploration. The impacts of location, culture, language, regional and overall curricular factors were not explored in this study.

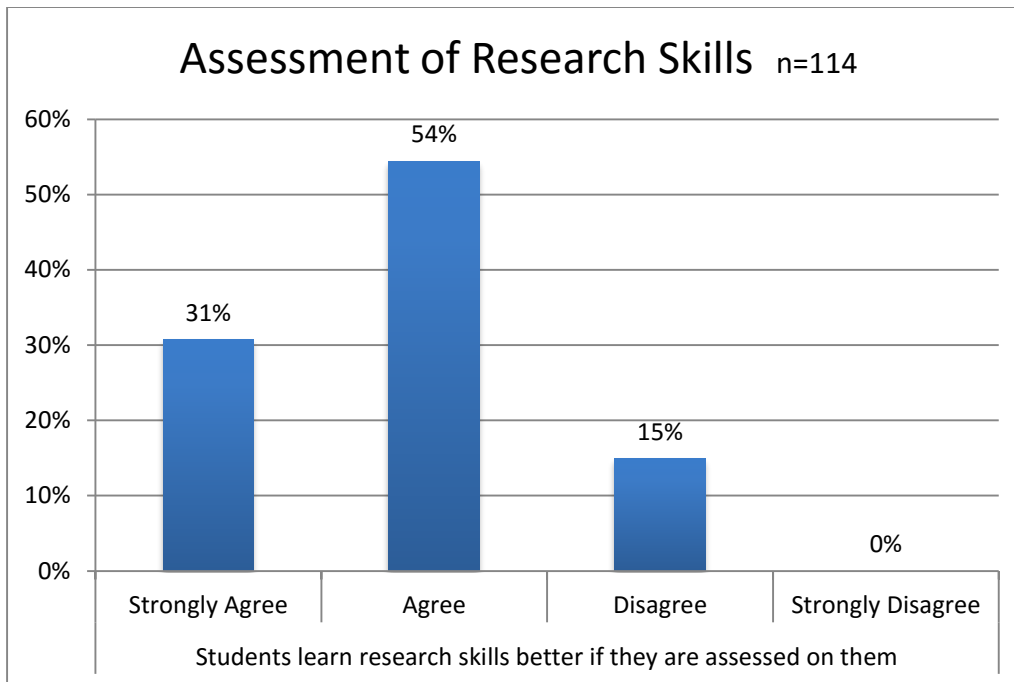
4. Findings: Instructor perceptions

This survey included questions used in other academic environments. In particular, instructors were asked a series of four questions which were identical to the cross-Atlantic study of Weetman DaCosta in a survey of university faculty (2010). In preparing this survey, permission to use portions of Ms Weetman DaCosta's instrument was requested and granted. Perceptions of instructors and faculty members in other academic institutions around the world are particularly valuable in this area of study.

4.1 IL skills and perceptions

Following collection of demographic information, the first statement in the survey instrument was '*Students learn research skills better if they are assessed on them.*' Response to this statement was based on a 4 point Likert scale ranging from Strongly Agree through to Strongly Disagree. In the results shown below (Figure 3), no instructors strongly disagreed. Instead, we see an overall agreement of 85% to this statement. This shows striking similarity to the US and UK university faculty who were posed the same statement.

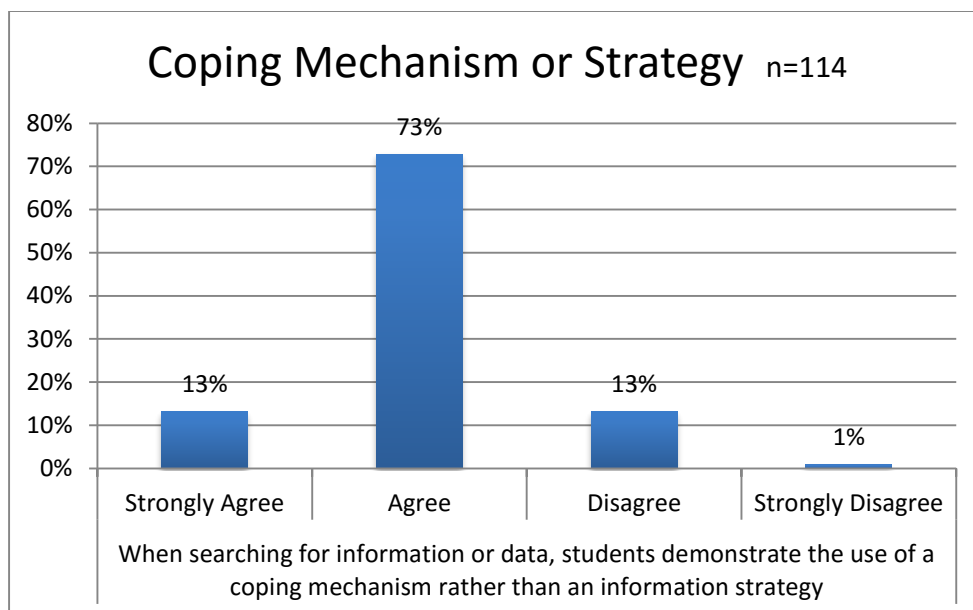
Figure 3: Assessment of research skills



Instructors were also asked to what extent they agreed with this statement: *Students demonstrate the use of a coping mechanism rather than an information strategy.* Having a strategy, understanding how information resources are created, organised and retrieved, and showing the ability to plan when preparing to search for information are all qualities of information literate individuals. This statement aligns with the SCONUL IL pillar ‘SCOPE,’ which is a student’s ability to ‘know what they don’t know,’ and to identify the information that is available to assist them. This statement also aligns with ‘PLAN;’ the ability to construct a search strategy and the “need to develop approaches to searching such that new tools are sought for each new question (not relying always on most familiar resources) and the need to revise keywords and adapt search strategies according to the resources available and/or results found” (SCONUL 2011, p. 7).

When faced with this question to assess a student’s information literacy (Figure 4), instructors at CNA-Q overwhelmingly (86%) stated that College students are at best, only able to cope when searching for information and do not demonstrate a strategy. This is much higher than Weetman DaCosta’s results, where 63% of the British and 57% of the American University faculty felt students demonstrated a coping mechanism (p. 213). This potentially highlights the differences between instructor and faculty perceptions of technical college students compared to university students.

Figure 4: Coping mechanism or strategy?



Definitions of information literacy and descriptions of information literate individuals have been the focus of national and international bodies for decades including the United Nations Educational, Scientific and Cultural Organization (UNESCO) to the International Federation of Library Associations (IFLA), the Chartered Institute of Library and Information Professionals (CILIP), the Australia New Zealand Institute for Information Literacy (ANZIL), the Association of College and Research Libraries (ACRL) and the American Library Association (ALA). Representatives of local, national, international and global library associations have debated, edited and wordsmithed their way to definitions that information professionals can stand behind. The Library at the College of the North Atlantic-Qatar has a stated preference for the SCONUL standards.

In a third statement, instructors were presented with the SCONUL definition, and again asked if they disagreed or agreed with it. The question was stated as follows:

SCONUL, the Society of College, National and University Libraries, describes information literate students as those who "demonstrate an awareness of how they gather, use, manage, synthesize and create information and data in an ethical manner and will have the information skills to do so effectively" (SCONUL 2011). Given this standard, I would say my students are information literate.

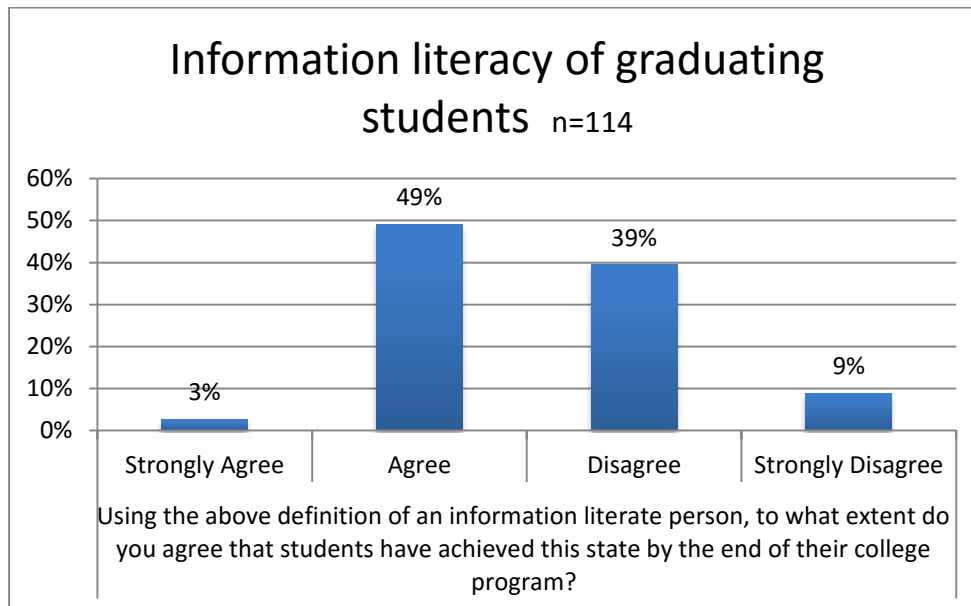
Forty-eight percent agreed and 51% strongly agreed to the definition resulting in a total of 99% of the participants agreeing with the SCONUL definition an information literate individual. While seeking agreement on this definition, this question also reinforced the purpose of the survey and the line of questioning.

And as noted above, instructors at CNA-Q felt that 86% of the students, when searching for information displayed a coping mechanism, rather than a strategy. Daily, the library staff work with students who have underdeveloped or poorly defined topics, have failed to consider keywords, synonyms, or subject terms, and do not understand the significance of various types of information sources (books, journals, newspapers, etc.) and when these sources are best used. Our own perceptions in the library have been validated by instructional staff who feel that only 14% of their students have a strategy in mind or on paper when searching for sources of information.

However, surprisingly, when asked directly if CNA-Q students met the definition of information literate individuals by the end of their programme, 52% of the instructors agreed or strongly agreed

that their students were information literate (Figure 5). This is a seeming contradiction, as one would expect consistency between students' demonstration of information literacy skills and instructors' agreement with statements defining information literacy.

Figure 5: Information literacy of graduating students



Whether or not instructors have been previously exposed to information literacy concepts, it is not a surprise that the study saw 99% of the instructors agreeing or strongly agreeing with the description of an information literate individual – it is somewhat like agreeing that ‘school is good’ or ‘reading is important.’

4.2 Instruction of IL skills and instructor wishes

When information literacy is described as seven discrete skills, it provides the opportunity to have instructors describe its importance, its instruction, development and assessment in the classroom in more detail. In the survey, instructors were asked five questions about each of the seven information literacy skills regarding student abilities and the corresponding instruction of those skills. Each of the seven IL skills – the Seven Pillars of Information Literacy – were identified and a brief description from the SCONUL document was provided. The questions, results of which are detailed in the figures below, were identical to those in the Weetman DaCosta survey (2010, p. 219). For each of the seven IL skills, instructors were asked to respond yes or no to the below questions.

Which of the following skills:

1. *Do you wish students to have acquired by the end of their programme?*
2. *Are specifically taught in courses you teach?*
3. *Are developed through the courses you teach?*
4. *Are assessed within the courses you teach?*
5. *Do you feel that students have acquired by the end of their programme?*

Figure 6: IDENTIFY: Can identify a personal need for information (can recognise a need for specific information)

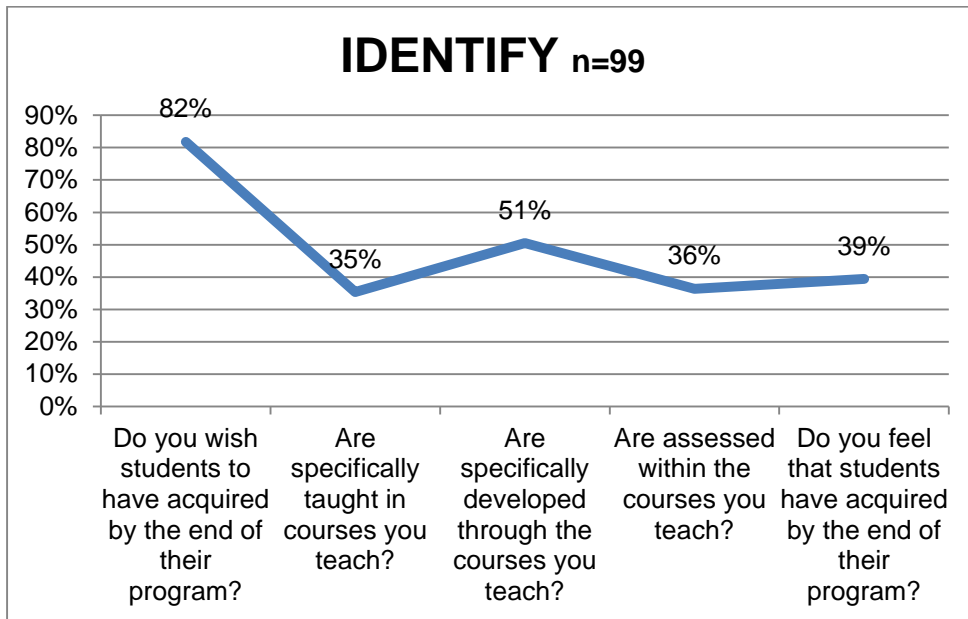


Figure 7: SCOPE: Can assess current knowledge and identify gaps (identify which types of information will best meet the need)

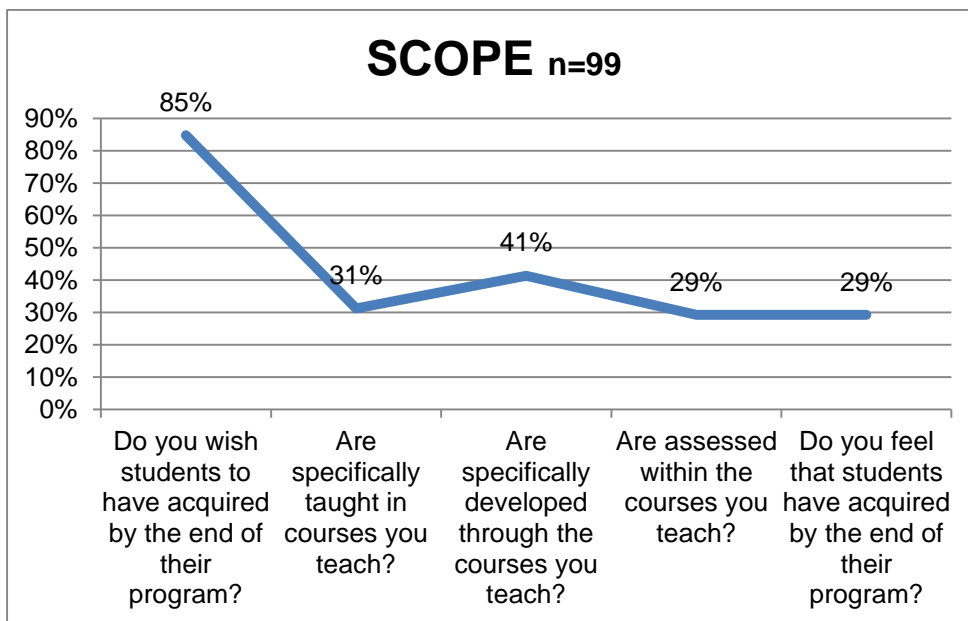


Figure 8: PLAN: Can construct strategies for locating information and data (define a search strategy by using appropriate keywords and concepts, defining and setting limits)

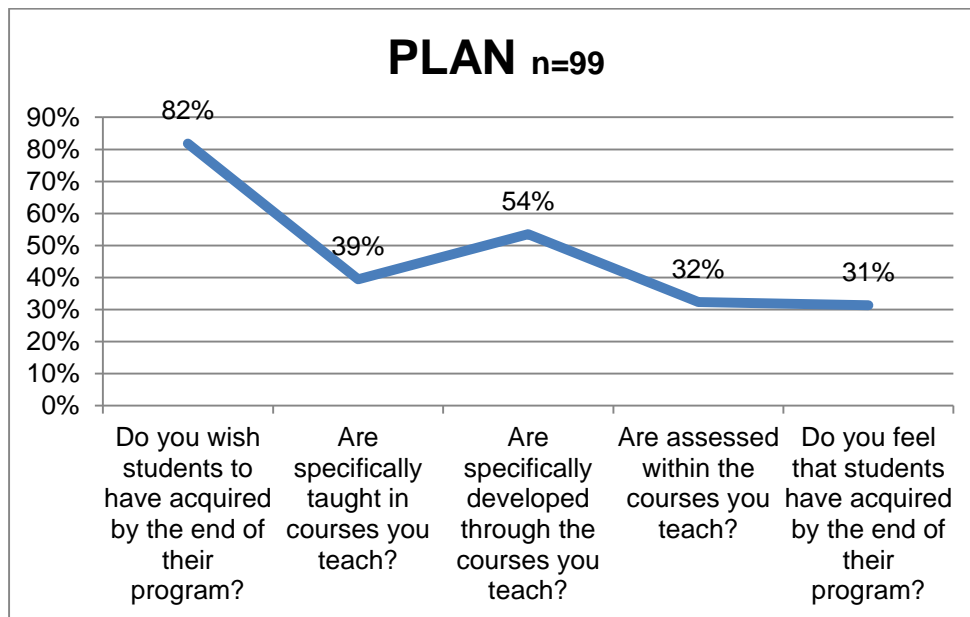


Figure 9: GATHER: Can locate and access the information and data they need (use a range of retrieval tools and resources effectively)

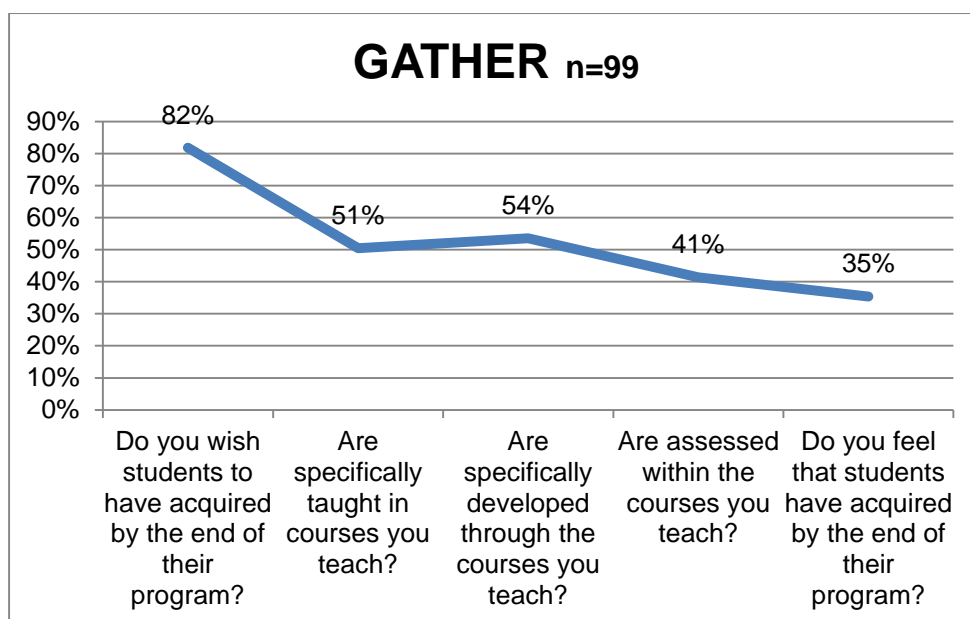


Figure 10: EVALUATE: Can evaluate the research process and compare and evaluate information and data (assess the quality, accuracy, relevance, bias, reputation, and credibility of the information resources found)

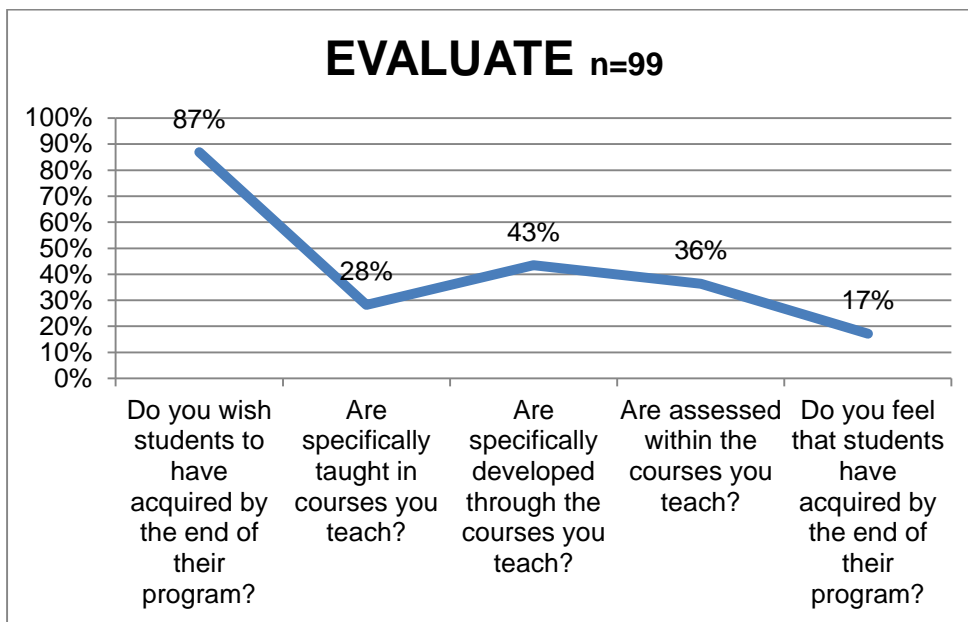


Figure 11: MANAGE: Can organise information professionally and ethically (display academic integrity, citing all printed and electronic sources using suitable referencing styles)

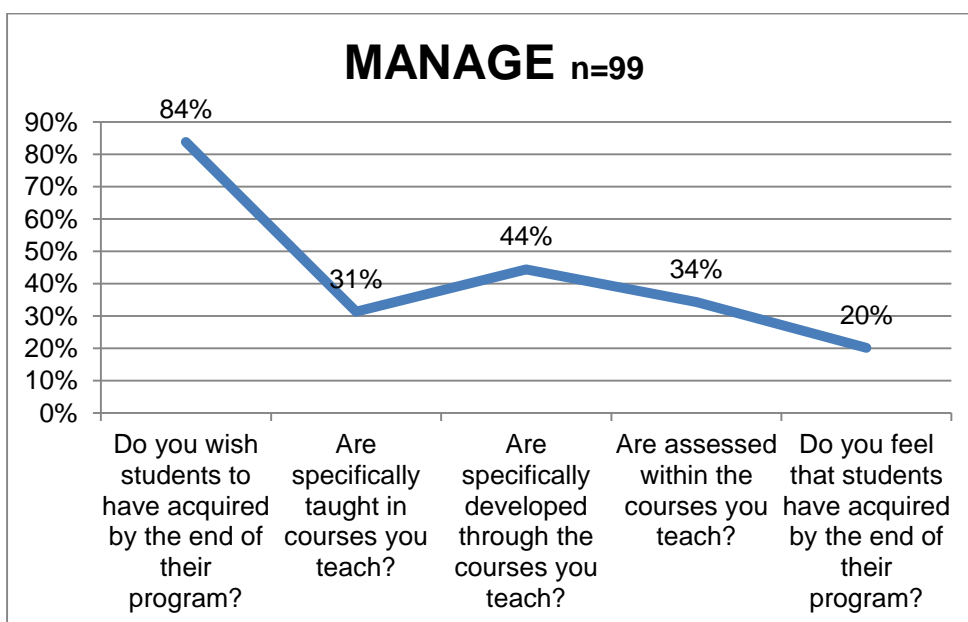
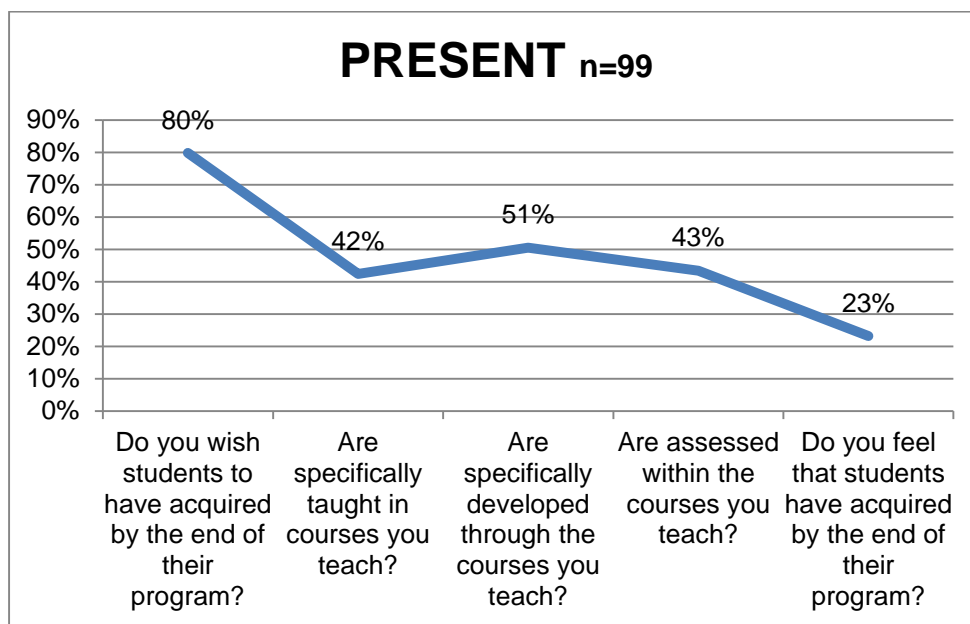


Figure 12: PRESENT: Can apply the knowledge gained (presenting the results of their research, synthesising new and old information and data to create new knowledge and disseminating it in a variety of ways)



Ninety-nine instructors completed this portion of the survey representing 31% of all the instructors on campus. On average, 82% of the instructors wish all their students had acquired all seven IL skills before they graduated. However when reflecting upon their students, instructors perceive that only:

- 39% can identify an information need,
- 29% can scope their information problem,
- 31% can plan and construct a strategy for locating information,
- 35% can gather the information and data needed,
- 17% can evaluate information for credibility
- 20% can manage information professionally and ethically, and
- 23% can present and synthesise the results of their research.

When considered together, fewer than 28% of the students at CNA-Q that our instructors have in their classrooms display all seven information literacy skills.

Weetman DaCosta, in asking the same questions in her 2010 survey, found that 88% of American university faculty wished students had acquired information literacy skills prior to graduation, and saw a 48% success rate (p. 215). While the wishes and desires of instructors at CNA-Q and university faculty are similar, the results seen at graduation are considerably different; about one-quarter versus almost one-half of students.

The survey revealed that at CNA-Q, 38% of our total number of instructors are either teaching, developing or assessing information literacy skills:

- 18% in Business Studies
- 31% in Engineering Technology and the Technician Preparatory Program
- 8% in Information Technology
- 10% in Health Sciences, and
- 34% in Language Studies and Academics.

These instructors need and deserve training themselves, to ensure that they maintain pace with the changes in the library locally and developments in information presentation, availability and challenges internationally. Providers of content, our library vendors and the publishers we work with are constantly enhancing user interfaces and adding new features. Content is moved back and forth between platforms and providers as new deals are struck for greater and greater fees. Discovery indexes affect how students search for information. Formats and delivery mechanisms change. Individual library subscriptions are dropped in favour of consortia offerings, which may result in changed delivery to the end user. None of the information we provide in libraries stays the same day in and day out. New content, via subscription databases is added to our libraries 24 hours a day, every day of the year. If 38% of the instructors at CNA-Q are teaching various aspects of information literacy, it is incumbent upon the library to keep our instructors up-to-date and informed of what has and will change. The dynamism of information offerings in academic library environments demands this.

Of particular note are the instructors' perceptions of students' abilities to proficiently evaluate content when selecting sources of information for their assignments. Eighty-seven percent of the instructors wish students would acquire this by the end of their college programme; however only 17% believe that students actually acquired this by graduation. Of all the skills identified in this portion of the study, it is the ability to evaluate content that shows the greatest differential between what instructors wish student had acquired (87%) and what students had acquired (17%) by graduation that is worth noting. Other studies in this area have shown similar results, validating the concerns of both librarians and instructors.

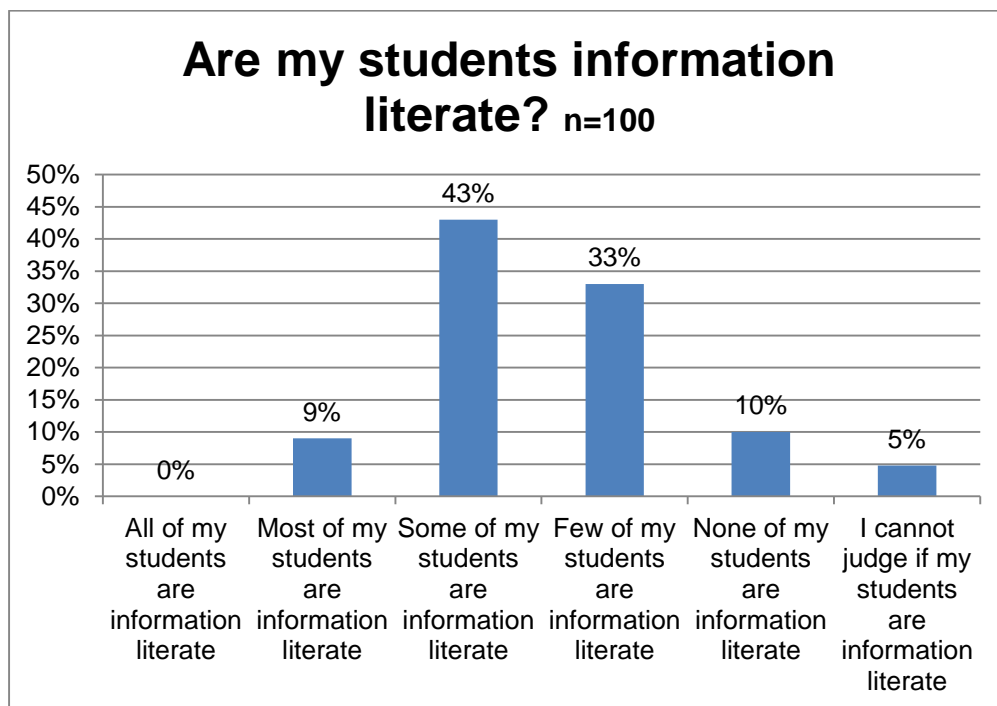
4.3 Overall perceptions of student information literacy

After completing the detailed consideration of each of the seven discrete IL skills, the participants were asked, once more, whether or not they considered their students information literate. Participants were asked this question:

SCONUL, the Society of College, National and University Libraries, describes information literate students as those who "demonstrate an awareness of how they gather, use, manage, synthesize and create information and data in an ethical manner and will have the information skills to do so effectively" (Society of College University and National Libraries 2011). Given this standard, I would say my students are information literate.

Figure 13, below, shows a significant shift in instructors' perceptions between the beginning of the survey at which time they were introduced to the concept and definition of IL and their perceptions at the end.

Figure 13: Are my students information literate?



Instructors were given the opportunity to offer feedback at the end of the survey. Comments related to this question concerned the appropriateness of information literacy for their particular group of students. An instructor who teaches English language skills for students training to work in natural gas plants remarked: “TPP (Technician Preparatory Program) students may not have opportunity for this type of learning. They are focused on workplace skills, language and preparation”. This particular instructor ranked “few” students as information literate. Similarly, an additional instructor noted: “I teach low-level English for TPP classes - the above is not relevant to my current students' needs”. This instructor felt that “none” of the students in their class were information literate. Another instructor teaching English language skills stated: “English levels are too low for this to be applicable”. This instructor also stated that “none” of the students in this area are information literate.

However, 17% of the instructors in this same programme stated that they either taught, developed or assessed information literacy skills. Appropriate, accurate and timely information is critical to competence in all working capacities in government, commerce and industry today. Furthermore, UNESCO (2014, p. 6) affirms the necessity of today’s citizenry to possess information literacy skills. This paper asserts that IL skills are relevant even when the instruction is delivered in a second language.

The final question of the survey asked instructors whether or not anyone from the library had instructed any IL skills, as defined by SCONUL, in their classrooms in the prior year. Twenty percent had taken advantage of information literacy instruction from the library in the prior year, 70% had not and 10% were not certain. Instructors were also able to comment in this area. Comments included:

“Not in the previous year, but in other years when I tried giving the students research projects I would invite a member of the Library and the AWC (Advanced Writing Centre/Writing Help Desk) to talk to the students.”

“Teaching math- need to add some component to include this (information literacy instruction).”

Participants were given the opportunity to comment generally on the survey and information literacy in general. Comments fell into seven general areas:

1. Student English Language level or computer literacy level is too low for this to be applicable.
2. Information literacy is not appropriate for students in 2-year technical / vocational colleges.
3. If information literacy is going to be taught it must be more relevant / place-based.
4. Information literacy needs to be part of the curriculum
5. Instructors themselves need to update and enhance their own IL skills
6. Instructors expressed a desire to include components of IL in their own teaching
7. Library needs to offer classes/continue offering classes/increase library marketing

5. Discussion

Some of the instructor perceptions of overall student information literacy were contradictory in this study. At the beginning of the survey, when provided a general definition of an information literate individual, and asked if students achieved this state of information literacy (see Figure 5), 3% strongly agreed, 49% agreed, 40% disagreed and 9% strongly disagreed. Instructors also clearly stated that 86% of the students they instructed could only display a coping mechanism (versus a strategy) when searching for information (Figure 4).

The results from questions asking instructors about what was actually taught in their classrooms were amalgamated to show averaged. One question was particularly revealing: "Which of the following skills...do you feel that students have acquired by the end of their programme?" When the results from each of the seven skills were considered together, instructors indicated that on the whole only 28% of their students had achieved information literacy by the end of their programme at the College.

Finally, before being asked for comments, instructors were again asked how many of their students were information literate based on the SCONUL definition. Forty-two percent said few or none of the students were information literate, another 42% said some were information literate and 9% said most were information literate, while the remainder could not judge this skill. This contradiction between the 28% above may indicate that instructors did not fully understand information literacy, drawing attention to the need to assist the instructors themselves. This gap in understanding information literacy concepts points to a developmental opportunity for the library. Engaging with instructional staff and improving their own information literacy skills may also be an appropriate solution to improving student information literacy skill.

At the same time, the survey found that almost 40% of the College's instructors were developing, teaching or assessing IL skills to students in some form. These instructors need and require support and further education in this area if the College is to be successful in graduating job-ready, information literate students.

On the other hand, instructors' reports of what IL skills were taught, developed and assessed in classroom were at odds with what they *wished* was taught to and eventually acquired by their students at the end of their programmes. Across the seven skills, instructors consistently wished that students had been taught all components of information literacy.

And in each case, when asked if students had acquired those skills, the majority had not. In fact, the instructors indicated that on average, only 27% of the students had acquired information literacy skills. On the whole, few students receive IL instruction in their regular classrooms as part of the curriculum, leaving a large opportunity for both library staff and instructors at CNA-Q. The College library has bought and is developing multimedia materials, complete with lesson plans and assessment components to support both students and instructors in this area. This initiative

however, must be supported by the College community at large if it is to be implemented as part of classroom instruction.

The skill of evaluating information for its credibility and appropriateness was identified as one of the greatest weaknesses of students, with instructors perceiving that only 17% of graduating students display this ability. One instructor, without any prompting at all, commented that students “don't seem to see the difference between internet research and the library resources available”. In Weetman DaCosta's study, the same question about evaluating information resulted in 37% of university faculty believing graduating students possessed this ability (2010, p. 215). Weetman DaCosta's findings are significantly higher than what was found in this study of instructors at a technical college.

Others, like Singh have found that university students scored similarly higher when faculty answered questions on the ability to evaluate information from the Internet, or student ability to discriminate between scholarly and non-scholarly sources of information (2005, p. 304). Bury found similar results, stating that “The main specific competency which faculty identify for development when asked about students they teach, is the ability to evaluate information sources”, reinforcing the results seen here (2011, p. 50). Similar results (lower than 50%) are seen in both Dubicki's and Lwonga's studies, pointing to a generalized problem students face and faculty perceive.

Further studies are needed to show whether the ability to critically evaluate information for credibility, appropriateness, etc. is consistently lower in vocational / technical students compared to undergraduate students. However, whether graduate, undergraduate or a vocational student, the ability to evaluate information critically has been found to be the weakest of the information literacy skillset for post-secondary students around the world. Librarians must consider these findings when planning and delivering instructional sessions to students, faculty and instructors. Upon seeing the results from the study, increased emphasis on content evaluation took place whenever librarians were invited into classrooms to give IL instruction. Library staff, when informed of these results, were given additional tools and instruction on how to assist students who are grappling with the credibility of information.

Comments from instructors indicate that they would also benefit from IL workshops that would enhance their own understanding of and proficiency in information literacy. While instructors may be focused on the particular ‘literacies’ of their own profession, they may be forgetting the literacy of the student as a whole person. Not only must students in this environment be reasonably literate in English and their chosen area of study, other literacies, such as information literacy need to be incorporated into instruction. The concept of multi-literacies, that is, being literate in multiple domains in our rapidly changing world where working with advanced technologies and digital texts is now the norm, should be embraced at all levels of instruction (Saudelli and Rowsell 2013, pp. 35-36).

The survey found that enhancing student information literacy at this institution to be something both classroom instructors and library staff are willing to embrace in a formal pedagogical fashion. Furthermore, instructors wish they had time in their curriculum and classroom schedule to incorporate IL concepts, which aligns with their belief that students are more motivated to learn research skills when they are formally assessed. However, changing the curriculum to encompass local challenges is unlikely to happen quickly. Instructors and librarians are likely to have quicker results by introducing simple IL concepts gradually and at an earlier level in our students' education at the College.

6. Conclusion and recommendations

As a recommendation, focusing on the instructors, who themselves may be removed from the research process or are defensive about the IL abilities of their students, may be a reasonable

approach. The challenge in the CNA-Q environment is the 'rotating door' of instructors who arrive on campus with only short-term guarantees of employment. Regular, ongoing outreach to instructors, new and old, may be the best way to influence student information literacy. Instructor openness to their own continuing education and personal growth will need to be promoted and multiple methods of delivering IL instruction employed by the library to be successful in both improving student and instructor information literacy. The CNA-Q library is currently developing a proposal to enhance both new student and new instructor orientation sessions with an information literacy component. To date, this has not been implemented at CNA-Q and findings from this survey demonstrate a need to address this instructional gap.

Frequent meetings with instructional teams that are teaching courses with identified 'library' assignments would be beneficial. These instructors need as much support from the library staff as possible; not only in identifying IL skills that require instruction, but scheduling classes to permit formal IL instruction. The library can also advise or mentor instructors on developing and guiding students in developing reasonable research thesis statements, and how to incorporate searching skills into the assignments. The library has considerable IL instructional resources for staff and students on our LibGuides pages and through online self-contained courses – the Credo Information Literacy Course Modules. Ensuring that instructors and students are aware of these resources and actively encouraging them to use our instructional and IL resources can help our students gain information literacy skills. Adopting measures consistent with these aims will go a long way to ensuring that CNA-Q's students graduate with the IL skills they need in today's workplace and society.

Overall, this study showed that instructor perceptions of post-secondary college student information literacy were lower than faculty perceptions of university students. The literature review predicated this, as studies of university students showed improving IL skills the longer the student stayed in a post-secondary environment. There are few studies of this type focusing on technical and vocational college students pointing to a need for more research in this area.

Further, this study investigated the instructor perceptions of student information literacy in a technical college using English as the language of instruction in the Middle East. The setting is highly unique; however, this study did not examine the impact of the EFL environment as a particular factor in the survey or its findings. Nonetheless, there are consistencies with studies in the United States, Canada, the United Kingdom and other areas of native language instruction that point to a challenge that must be faced by librarians no matter where they are located. In a world of exponentially increasing volumes of information, instructors and faculty see students with weak information literacy skills. As librarians, our expectations for an information literate student body, as outlined by the standards set out by ANZIL, SCOUNL and ACRL are high. As a profession upholding these standards, the work before us is considerable.

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The survey developed by Jacqui Weetman DaCosta was heavily adapted for this study. I wish to thank her for her willingness to allow me to use her work. Support was also received from the Manager of Library Services, Cathleen de Groot and the senior management of the College of the North Atlantic-Qatar. Ms de Groot and Dr. Nicole Johnston, lecturer in the MA Library and Information Studies programme at University College London – Qatar also reviewed the survey and its findings. Both have been very generous with their time and were supportive of this study.

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References

- Baker, R.K. 1997. Faculty perceptions towards student library use in a large urban community college. *The Journal of Academic Librarianship*, 23(3), pp. 177–182. Available at: [http://dx.doi.org/10.1016/S0099-1333\(97\)90096-3](http://dx.doi.org/10.1016/S0099-1333(97)90096-3).
- Bury, S. 2011. Faculty attitudes, perceptions and experiences of information literacy: a study across multiple disciplines at York University, Canada. *Journal of Information Literacy*, 5(1), pp. 45–65. Available at: <http://dx.doi.org/10.11645/5.1.1513>.
- Canon, A. 1994. Faculty survey on library research instruction. *RQ*, 33(4), pp. 524–541.
- Conley, T.M. and Gil, E.L. 2011. Information literacy for undergraduate business students: examining value, relevancy, and implications for the new century. *Journal of Business & Finance Librarianship*, 16(3), pp. 213–228. Available at: <http://dx.doi.org/10.1080/08963568.2011.581562>.
- Dubicki, E. 2013. Faculty perceptions of students' information literacy skills competencies. *Journal of Information Literacy*, 7(2), pp. 97–125. Available at: <http://dx.doi.org/10.11645/7.2.1852>.
- Goldenstein, C. and Kearley, J. 2013. Faculty perceptions of library instruction. *Proceedings of the 10th Northumbria International Conference on Performance Measurement in Libraries and Information services*, pp. 113–119. Available at: [https://www.york.ac.uk/media/abouttheuniversity/supportservices/informationdirectorates/documents/northumbriageneraldocs/10th Northumbria Conference Proceedings.pdf](https://www.york.ac.uk/media/abouttheuniversity/supportservices/informationdirectorates/documents/northumbriageneraldocs/10th%20Northumbria%20Conference%20Proceedings.pdf) [Accessed: 6 August 2015].
- Horton, F.W.J. and UNESCO 2014. *Overview of information literacy resources worldwide*. Paris: France.
- Jackson, B., MacMillan, M. and Sinotte, M. 2014. Great expectations: results from a faculty survey of students' information literacy proficiency. *Proceedings of the IATUL Conferences*, p. 23. Available at: <https://mruir.mtroyal.ca/xmlui/handle/11205/133> [Accessed: 15 August 2015].
- Johnson, L., Adams Becker, S., Estrada, V., and Freeman, A. 2015. *NMC Horizon Report: 2015 Library Edition*. Available at: <http://cdn.nmc.org/media/2015-nmc-horizon-report-library-EN.pdf> [Accessed: 26 August 2015].
- Kamrava, M. 2015. Introduction. In *Gateways to the world: port cities in the Gulf Working Group Summary Report*. Doha, Qatar: Center for International and Regional Studies, Georgetown University School of Foreign Service in Qatar, pp. 1–2.
- Kousar, M. and Mahmood, K. 2015. Perceptions of faculty about information literacy skills of postgraduate engineering students. *International Information & Library Review*, 47(1-2), pp. 52–57. Available at: <http://dx.doi.org/10.1080/10572317.2015.1055694>.
- Leckie, G. and Fullerton, A. 1999. Information literacy in science and engineering undergraduate education: faculty attitudes and pedagogical practices. *College and Research Libraries*, 60(1), pp. 9–29. Available at: <http://dx.doi.org/10.5860/crl.60.1.9>.
- Lwoga, E.T.D. 2013. Faculty perceptions and practices in health sciences information literacy instruction in Tanzania. *Library Philosophy and Practice*, 1017, pp. 1–19.
- Ministry of Development Planning and Statistics State of Qatar 2015. *Population structure*. Available at: <http://www.qsa.gov.qa/eng/populationstructure.htm> [Accessed: 26 August 2015].
- Sandercock. 2016. *Journal of Information Literacy*, 10(1). <http://dx.doi.org/10.11645/10.1.2065>

Nilsen, C. 2012. Faculty perceptions of librarian-led information literacy instruction in postsecondary education. *World Library and Information Congress: 78th IFLA General Conference and Assembly*, (August), pp. 1–25. Available at: <http://www.buw.uw.edu.pl/images/mapa/IFLA2012/papers/105-nilsen-en.pdf> [Accessed: 13 September 2015].

Rader, H.B. 2002. *Information literacy - an emerging global priority*, pp. 1–20. Available at: <http://www.nclis.gov/libinter/> [Accessed: 28 August 2015].

Saudelli, M.G. and Rowsell, J. 2013. Walking the talk: towards a notion of multiliteracies in literacy teacher education. In C. Kosnik et al., eds. *Literacy teacher educators: preparing teachers for a changing world*. Rotterdam, Netherlands: Sense Publishers, pp. 35–50. Available at: http://dx.doi.org/10.1007/978-94-6209-200-6_4.

Saunders, L. 2012. Faculty perspectives on information literacy as a student learning outcome. *Journal of Academic Librarianship*, 38(4), pp. 226–236. Available at: <http://dx.doi.org/10.1016/j.acalib.2012.06.001>.

Sheble, R. and Walker, L. 2016. Qatar school pulls Snow White book for being “inappropriate”. *Doha News*, p. 1. Available at: <http://dohanews.co/qatar-school-pulls-snow-white-book-for-being-inappropriate/> [Accessed: 21 January 2016].

Singh, A.B. 2005. A report on faculty perceptions of students’ information literacy competencies in journalism and mass communication programs: The ACEJMC survey. *College & Research Libraries*, 66(4), pp. 294–310. Available at: <http://dx.doi.org/10.5860/crl.66.4.294>.

Society of College, National and University Libraries (SCONUL) 2011. *The SCONUL Seven Pillars of Information Literacy: core model for higher education*. Available at: <http://www.sconul.ac.uk/sites/default/files/documents/coremodel.pdf> [Accessed: 18 August 2015].

Weber, A.S. 2014. Education, development and sustainability in Qatar: a case study of economy knowledge transformation in the Arabian Gulf. In A. W. Wiseman, N. H. Alromi and S. A. Alshumrani, eds. *Education for a knowledge society in Arabian Gulf countries: international perspectives on education and society*, 24, pp. 59–82.

Weetman DaCosta, J. 2010. Is there an information literacy skills gap to be bridged? An examination of faculty perceptions and activities relating to information literacy in the United States and England. *College & Research Libraries*, 71(3), pp. 203–222. Available at: <http://dx.doi.org/10.5860/0710203>.

Appendix: Survey instrument

Introduction

Information literacy has been recognized by many scholars and organizations as one of the key tools in the creation, development and the ongoing success of a knowledge economy. In an academic environment, instructors and administrators are challenged to not only graduate literate and intelligent students, but students who can successfully navigate an information rich economy while at the same time becoming life-long learners. The purpose of this survey is to determine instructors' perceptions of the information literacy skills of their students. The survey itself should take you less than 10 minutes and is based on this internationally recognized standard.

Demographics

1. How many years have you taught college level courses?
1 year/2 years/3 years/4 years/5 years/6 years/7 years/8 years/9 years/10 years or more/I've never taught college level courses before
2. How many years have you been teaching at CNA-Q?
1 year/2 years/3 years/4 years/5 years/6 years/7 years/8 years/9 years/10 years or more/I've never taught at CNA-Q before
3. How many years have you been teaching students whose first language is not English?
1 year/2 years/3 years/4 years/5 years/6 years/7 years/8 years/9 years/10 years or more/This is the first time I've taught students whose first language is not English
4. In which School do you teach?
Language Studies and Academics/Technician Preparatory Program/School of Engineering Technology/School of Health Sciences/School of Business Studies/School of Information Technology
5. What is the highest level of education you have completed?
Some high school/High school graduate/Some college/College diploma, certificate, ticket or apprenticeship/Some university/University degree (4 year)/Some postgraduate university/Postgraduate degree/Some doctoral experience/ Doctoral degree
6. In which country was the highest level of formal education attained?

Information literacy skills and perceptions¹

1. Please indicate to what level you agree or disagree with the following statements. Strongly agree/Agree/Disagree/Strongly disagree
 - a. Students learn research skills better if they are assessed on them
 - b. When searching for information or data, students demonstrate the use of a coping mechanism rather than an information strategy
 - c. An information literate person is one who can recognize when information is needed and have the ability to locate, evaluate and use effectively the needed information
 - d. Using the above definition of an information literate person, to what extent do you agree that students have achieved this state by the end of their college program?

2. Which of the following skills: (Please tick as many as are relevant)¹

	Do you wish students to have acquired by the end of their program?	Are specifically taught in courses you teach?	Are developed through the courses you teach?	Are assessed within the courses you teach?	Do you feel that students have acquired by the end of their program?
IDENTIFY Can identify a personal need for information (can recognize a need for specific information)					
SCOPE Can assess current knowledge and identify gaps (identify which types of information will best meet the need)					
PLAN Can construct strategies for locating information and data (define a search strategy by using appropriate keywords and concepts, defining and setting limits)					
GATHER Can locate and access the information and data they need (use a range of retrieval tools and resources effectively)					
EVALUATE Can evaluate the research process and compare and evaluate information and data (assess the quality, accuracy, relevance, bias, reputation, and credibility of the information resources found)					
MANAGE Can organize information professionally and ethically (display academic integrity, citing all printed and electronic sources using suitable referencing styles)					
PRESENT Can apply the knowledge gained (presenting the results of their research, synthesizing new and old information and data to create new knowledge and disseminating it in a variety of ways)					

3. SCONUL, the Society of College, National and University Libraries, describes information literate students as those who "demonstrate an awareness of how they gather, use, manage, synthesize and create information and data in an ethical manner and will have the information skills to do so effectively" (SCONUL 2011). Given this standard, I would say my students are information literate.

All /Most/Some/Few/None/Cannot judge

4. Based on the above definition, have you had anyone from the CNA-Q Library instruct any component of information literacy to your classes in the previous year?

Yes/No/Not sure/Other (Please specify)

Suggestions for improvement

Finally, please indicate any methods you believe can improve information literacy skills and/or ways librarians can assist you with enhancing student information literacy.

¹Questions 1 and 2 in 'Information literacy skills and perceptions' are from Jacqui Weetman DaCosta's 2010 survey and are used with her permission.