'The opportunities for specialist academic libraries to integrate information literacy into faculty curricula'

by

Simon James Coates

Submitted to the School of Information Management,
Victoria University of Wellington
in partial fulfilment of the requirements for the degree of
Master of Library and Information Studies

June 2008

VICTORIA UNIVERSITY OF WELLINGTON
Te Whare Wānanga o te Ūpoko o te Ika a Māui

School of Information Management

Statement of Availability
INFO 580 Research Project

Copies of Master of Library & Information Studies research projects are retained in the School's research project collection, which is managed by the University Library. The author grants to the School of Information Management the right to list bibliographic details and abstracts of the projects in publicly available databases. Papers submitted in electronic form may be made available by the school on a network server. The author retains all rights to publish and/or sell the research paper by any means at any time.

The author states that the project does not violate any copyright or rights of others.

Student (Author): Simon James Coates

Supervisor: Alastair Smith

Project Title: *The opportunities for specialist academic libraries to integrate information literacy into faculty curricula.*

Year Project completed: 2008

I agree to the above conditions

Signed: Simon Coates   Date: 9/6/08

Acknowledgements:

I would like to thank my supervisor, Alastair Smith, for his guidance and assistance. I would also like to thank my family, friends and colleagues for their support.

Table of contents

Abstract:

This research project sought to determine the opportunities for librarians in specialist academic libraries to integrate information literacy into faculty curricula. Information literacy is becoming recognized as increasingly important as a graduate competency by universities, and is a significant component of lifelong learning. The ability of librarians to collaborate with academic faculty staff in order to provide information literacy instruction to students is crucial. The researcher employed a qualitative methodology for the project, interviewing subject librarians who worked with faculty from two specialist academic libraries at the University of Auckland. The theoretical framework of the project was based on the works of Hardesty and Farber, when considering factors relating to librarian-faculty relationships, and of Owusu-Ansah and Grafstein, among others, on factors relating to information literacy. Analysis of data collected yielded results falling within three main areas. Subject librarians within the specialist academic libraries studied considered themselves to be highly accessible, being able to be contacted in person very easily by the academics whose subject discipline resources they administered. They also felt that they were visible, both within the libraries themselves, and within the wider faculty area within which the libraries were situated. The ability to employ information literacy components which were tailor-made for particular courses, grounded within specific subjects facilitated both lecturer and student buy-in. These three factors contribute to the inclusion which subject librarians in specialist academic libraries feel within a community involving all members of faculty, united by geographical location and subject discipline, and which greatly facilitates the integration of information literacy into curricula.

Key words:

Information literacy

Faculty

Specialist academic libraries

Curricula

1. Introduction

The ability to effectively and efficiently access, evaluate and ethically utilise information within an increasingly resource-rich environment is becoming recognized as critical, both for those who are currently studying towards a tertiary qualification, and also for those who have long since graduated. Life-long learning is an essential competency in a world where information is being created at a phenomenal rate, is increasingly easy to access, and varies widely in quality. Librarians have been significantly involved in the promotion of information literacy awareness, and have been instrumental in its adoption and instruction within tertiary educational institutions. Information literacy has opened new avenues for interaction between academic librarians and faculty staff members, both in terms of challenges and opportunities. Academic librarians have strong interests in sustaining constructive relationships with faculty, and in assisting the development of the information literacy competencies of the students in their organizations. The value of information literacy is becoming increasingly recognized by tertiary institutions, and information literacy competencies often form a significant part of an institution's graduate profile. At the same time academic faculty staff are constantly striving to fit all the specific subject content they deem necessary into their courses, a situation which can create tension when librarians approach them with the intent to initiate collaborative ventures on information literacy integration. Specialist academic libraries differ from their centralized counterparts in that they are often in closer geographic proximity to the offices, lecture theatres, studios and other workspaces of the faculty staff members and students. They also tend to be significantly smaller in size, due to their focus on resources pertaining to the particular subject disciplines of the faculty, and staff tend to have more varied roles than in a larger library. This project sought to determine whether there are opportunities for subject librarians working in specialist academic libraries which facilitate the integration of information literacy into faculty curricula. The project interviewed subject librarians from two specialist academic libraries about their experiences working with faculty academics on information literacy initiatives.

2. Problem statement

This project seeks to explore the following research question: What opportunities exist for specialist academic librarians to integrate information literacy into faculty curricula? It seeks to explore a gap in the literature relating to specialist academic libraries with regard to the issue of how information literacy can be integrated into faculty curricula. The findings of this study will be specific to the particular context within which the research was undertaken, but some aspects may be transferable to other, more generalized, settings. These may contribute to the development of best practices of information literacy inclusion and faculty-librarian collaboration.

3. Literature review

The following review of the literature provides the framework for determining the opportunities for specialist academic librarians to integrate information literacy into faculty curricula. The importance of information literacy is discussed. Some of the factors hindering the integration of information literacy into faculty curricula are considered, as well as relations between faculty and librarians and their impact on collaboration. Very little has been written on specialist academic librarians' potential for contributing to information literacy initiatives. Methodologies employed in other information literacy studies are addressed.

Information Literacy

Defining information literacy was a preoccupation of library literature for a number of years (Grafstein, 2002; Owusu-Ansah, 2003; Rader, 2002). There is no universal definition, but the similarity of measurements and standards by major regional associations, for example the ACRL, SCONUL, and in Australasia the ANZIIL, consolidates general perception of the core elements (ACRL, 2001; ANZIIL, 2004; SCONUL, 1999). These comprise determining the information need, accessing the information effectively, critically evaluating the information and its sources, incorporating the information into a new knowledge base, using information effectively to achieve a purpose, understanding the cultural, legal and economic aspects of the information, and using the information ethically (Owusu-

Ansah, 2003). Information literacy was a significant element in the educational paradigm shift from lecturer-based teaching to student-centred learning (Proctor, Wartho, & Anderson, 2005; Thompson, 2002). The context of constant technological advances and change in the provision of information resources heightens the necessity for information literacy competencies (Grafstein, 2002).

There is widespread consensus that information literacy is a beneficial and indeed necessary outcome for graduates of tertiary educational facilities (Bennett, 2007; Singh, 2005); this view is shared by librarians, accrediting bodies, and faculty themselves (Kempcke, 2002; Singh, 2005). Lifelong learning, the ability to continue to process, evaluate and utilise information in our resource-rich society, has had increasing significance and attention over a number of years, leading to many higher education providers including it within their stated outcomes of graduate attributes (Proctor et al., 2005). Studies show that students who participate in information literacy instruction, or assessment designed to improve their information literacy skills, perform better overall in the academic environment (Emde & Emmett, 2007; Singh, 2005).

Historically, instruction offered by librarians included library orientation tours, one-off instruction sessions in class, short classes, often voluntary, teaching generic skills such as database searching, and a small amount of integrated assignments organized with sympathetic faculty (Kempcke, 2002). However the Library and Information Science (LIS) literature has indicated a widespread movement over the course of a number of years towards integration of skills development with course content (Grafstein, 2002; Leckie & Fullerton, 1999; Singh, 2005). This movement is not without its critics; Owusu-Ansah (2007), for example, argues that such integration subordinates the library to faculty, and proposes library-taught, credit-bearing courses teaching generic information literacy competencies. Gaining permission from parent organizations to offer credit-bearing courses, however, is a significant challenge.

Why is information literacy not more prevalent in curricula?

A significant factor, and one which will be discussed in more detail in a later section, is the relationship between faculty and library staff, with regard to integrating information literacy instruction into the curriculum. This relationship permeates many levels of this discourse; there are, however, other important factors which require consideration.

One of the problems with information literacy integration is that faculty members often do not have the time available to work on the integration of material with library staff (Hardesty, 1995, 1999). Another is the amount of content that is covered in the curriculum for a particular paper; often there is

resistance based on the premise that material spent on teaching information literacy competencies detracts from the total amount of time they have available to teach the core content of their particular subject (Hardesty, 1995; Owusu-Ansah, 2004). At times faculty staff themselves are unaware of the tools the library staff can provide to help them in teaching their students information literacy (Cannon, 1994; Leckie & Fullerton, 1999). Faculty who have learned to utilise research material themselves without specific library-oriented instruction may be less likely to be amenable to including information literacy in their coursework, or to recommending use of the library to their students, feeling that since they learned it by themselves, their students will do the same (McGuinness, 2003; Weetman, 2005). This approach would fail to take into account changes in the provision and organization of information, for example library systems' move from text to graphical user interfaces (Schuyler, 1998).

Different disciplines also approach information literacy in different ways, and have different views on how it should be integrated into their education programs (Cannon, 1994; McGuinness, 2006). There can also be disagreement among members of the same faculty as to the best way of teaching information literacy (Kempcke, 2002; Leckie & Fullerton, 1999). This lack of unity of approach can complicate matters when librarians attempt to initiate discussions with faculty on information literacy integration. Some LIS authors argue that effective information literacy instruction can only be taught in a discipline-specific, course-related context (Grafstein, 2002).

It may be that there is not enough pressure by accrediting bodies on institutions to instill information literacy competencies on their graduates, a lack of pressure which would otherwise be passed on to faculty members themselves. Singh emphasizes the power of such accrediting bodies by attributing their explicit statements on such matters as information literacy inclusion as one of the factors which drive institutional and curricular change (Singh, 2005).

It should also be noted that librarians often are under tight time constraints due to their workload, and in many cases struggle to find the resources to draw up detailed specialist proposals for information literacy integration with which to approach faculty (Bennett, 2007; Flaspohler, 2003; Sult & Mills, 2006). The limitation of library staff resources is an area some librarians feel faculty do not always appreciate (Christiansen, Stombler, & Thaxton, 2004). Some LIS authors have pointed the way towards different ways of instruction, including web-based instruction and virtual reference services, with a focus on user-centred and self-paced learning, either as an alternative to, or complementary to, more traditional methods (Galvin, 2005; Matthew & Shroeder, 2006). Libraries have also been involved in training students and academic staff using virtual learning

environments such as WebCT (Quinlan & Hegarty, 2006). Such services, however, also require library resources to create and to maintain.

Especially in situations where a limited form of library instruction has traditionally been given, there is a danger, from the students' perspective, of providing instruction which is of insufficient applicability and value. Cannon stresses the importance of providing instruction at the time of need (i.e. before an assignment needing such instruction is due), in a format able to be understood and applied by students (Cannon, 1994). Multiple methods of instruction are desirable for best results. Librarians may need to make a decisive break with past methods of offering information literacy instruction in order to more effectively meet students' current needs (O'Hanlon, 2007).

Some academic librarians think that rather than modifying curricula to incorporate information literacy, what needs to happen is 'curriculum re-engineering', the rebuilding of the curriculum from scratch. It is a complex process, and requires comprehensive justification from involved parties, and sign-off from an institution's governing body (Zabel, 2004). In this endeavour librarians can have an active role in the restructuring of curricula to accommodate changes in organizational, performance and educational paradigms. There are pitfalls to the process, however, which if not conducted effectively can result in bitterness and division (Kempcke, 2002). This zealous approach contrasts with the incremental view that progressively working towards a goal of integration will ultimately yield results (Hardesty, 1995), although Hardesty (1999) appears somewhat skeptical of his earlier enthusiasm and belief in such progress. Restructuring of departmental curricula can also have an impact on branch libraries supporting those departments (Madison & Fry, 1994).

Problems often arise when a key person from either faculty or the library leaves an organization; if a program relies too much on individual staff members it can be fragile and disintegrate when a single person leaves (Kempcke, 2002). Too often a successful information literacy program depends on a select few interested parties. This is a compelling reason to formalize relations within the organization.

Faculty culture and library relations

The relationship between faculty and librarians is of critical importance. This in many cases equates to the success or failure of collaborative integration of information literacy into faculty curricula. A close consideration of the relationship and context of interactions between faculty and librarians is invaluable in providing the understanding which can facilitate collaboration.

Faculty culture especially needs to be scrutinized in order to allow librarians to approach collaborative ventures with more authority.

There have been a number of comprehensive studies on faculty culture and its relation with librarians conducted within the last decade and a half (Cannon, 1994; Gullikson, 2006; Hardesty, 1995). From those studies some important observations have been made which are of relevance to librarians seeking to establish collaborative information literacy programs. It is noted that individual faculty cultures can be complex and multifarious; it is difficult to generalize as to their nature. Often they vary from institution to institution, and between disciplines within a single organization. No one is able to encapsulate the political climate in every department (Kempcke, 2002). Given that so many LIS authors stress the importance of librarians initiating dialogue, of approaching faculty and promoting their proficiencies and capabilities, an understanding of some of the shared characteristics of faculty culture is crucial (Flaspohler, 2003; Hardesty, 1995).

Academia values personal knowledge, research and the production of published material; often that is at odds with a comprehensive teaching program and competes for the faculty member's limited time. Undergraduate study is considered by some to be less important than graduate research, the former seen merely as a stepping stone to the latter (Hardesty, 1995). There is an emphasis on personal autonomy, especially within the lecture room (Hardesty, 1995), although developments in outcomes assessment are necessarily making inroads into that domain (Kempcke, 2002; O'Hanlon, 2007).

Given the commonly institutionalized and traditional methodologies the role of faculty member requires, there can be resistance to change, especially from outside influences (Hardesty, 1995). There may be resistance to attempts at information literacy integration initiated by librarians, but that resistance is not ill-intentioned (Hardesty, 1999); in many cases librarians are well-regarded, but the idea of librarian-initiated or –driven information literacy integration in what they may perceive as their curriculum may be foreign to them.

Faculty often do not conceive of librarians as being on the same academic level as themselves. They feel that librarians do not have the research publication focus, often do not have the same level of degree, and are service-oriented, a profession rather than academe (Christiansen et al., 2004). They feel a privileged status that they may not want to share, especially with others they perceive as not as qualified (Hardesty, 1995).

It is often said that librarians must be proactive in initiating dialogue with faculty members (Hardesty, 1995; Owusu-Ansah, 2001). It is sometimes also said that faculty themselves have a responsibility to form partnerships with library

staff as information professionals to solve student information illiteracy (Kempcke, 2002; Sult & Mills, 2006).

Studies have shown that the vast majority of faculty from various departments believe that library research, and library research instruction, is important in their field (Cannon, 1994). Cannon's study also found that a significant proportion of faculty thought that collaborative teaching, involving both library and faculty members, of library research instruction, was the best methodology. There is little doubt that librarians themselves recognize the value of and need for greater collaboration with faculty (O'Hanlon, 2007).

Some LIS authors have made the distinction between content and process, and identified separate roles for librarians and faculty in the teaching of the two, while stressing the dangers that can occur if the two are separated and information-seeking is not placed in the context of knowledge creation (Grafstein, 2002). This is in effect an argument for discipline-specific information literacy integration. To paraphrase Zabel, information literacy cannot take place in a vacuum (Zabel, 2004, p.19).

A countering argument put forward by librarians against what might seem at times to be an impenetrable cultural barrier are that they are professionals, and experts in their field of information utilisation and management, and are thus suitably qualified to work with faculty in instilling information literacy competencies in students (Owusu-Ansah, 2001). Playing to librarians' identified strengths, and focusing efforts in liaising with faculty in such ways as instructing the instructors in such things as new developments in technology, can be a way of bridging the divide and a useful networking tool (Cannon, 1994).

Limitations in scope in the literature

Many studies research the developments of information literacy competencies against methods of instruction within a specific faculty and library context (Flaspohler, 2003; Proctor et al., 2005; Sult & Mills, 2006). However these studies generally offer little comment on the particular nature of the organizational structural arrangement, and subsequent relationship between the two parties, and are more likely to describe the integrated program and its results rather than the way in which integration was achieved. In many cases it would be useful to have been provided more library and faculty context, in order to isolate factors leading to the successful outcome.

A large amount of the literature on specialist academic libraries, or branch libraries according to differing terminology, focuses mainly on organizational, resource-oriented and managerial differences. There is significant discourse on the benefits and disadvantages of centralization and decentralization, which does

not go into much detail on the relationship of the branch library to faculty, or to information literacy opportunities (Kuyper-Rushing, 2002; Madison & Fry, 1994). With the emergence of information technologies which allow remote access to electronic resources, some believe the role of the specialist library is changing, with an increased focus on its importance as a site of community and intellectual collaboration (Xu, 2006). Brief mention is made of the closer relations enjoyed by branch libraries with the disciplines they support (Shkolnik, 1991), and the corresponding support of faculty for the library, but there is a noticeable gap in the literature regarding the specific opportunities of such libraries to contribute to the strengthening of faculty-librarian collaboration.

An attempt to identify the unique opportunities of specialist academic libraries for the integration of information literacy into faculty curricula would help to fill a gap in the literature on such libraries with specific regard to information literacy, and may contribute towards theories on methodologies of integration which can be adapted and utilised by other libraries.

Methodology

A number of studies concerning aspects of information literacy integration in academic settings use quantitative data collection methods, such as surveys. Quantitative methodologies have been useful in ascertaining, for example, the impact of a particular course on students' learning competencies (Emde & Emmett, 2007), or the degree to which faculty have collaborated with librarians for information literacy purposes (O'Hanlon, 2007) or believe that librarians should be involved in teaching information literacy to students (Leckie & Fullerton, 1999).

As this project sought to explore the research question through in-depth exploration of the knowledge and experiences of a select group of librarians, it required a qualitative methodology. Data gained via interview and focus group can provide information immediately useful to the project group. Proctor, Wartho and Anderson (2005) report that focus group feedback allowed teaching librarians to tailor information literacy activities to include a more discipline-specific focus. In-depth interviews with instructors provided Sult and Mills (2006) with detailed feedback on ways to improve activities teaching information literacy skills.

The impact of the interview method is apparent in the writings of McGuinness (2006) and Proctor, Wartho and Anderson (2005) in their work with academics and students respectively. McGuinness addresses the importance of a qualitative study for capturing the complexity of the context of academic activity, as well as the flexibility of the semi-structured interview to pursue emergent themes. Proctor, Wartho and Anderson record students' enthusiasm and increased

confidence in using information resources after participating in a course with embedded information literacy activities and assessment.

Multiple methods of data collection require increased time for data analysis. Leckie and Fullerton report primarily on the analysis of survey rather than interview data in assessing faculty perceptions of information literacy teaching practices (Leckie & Fullerton, 1999). Due to time limitations, Sult and Mills utilised focus groups rather than surveys in researching instructors' use of an information literacy teaching model (Sult & Mills, 2006). The scope of this project dictates that only one methodology be used.

4. Study objectives

This project sought to obtain knowledge on how specialist academic librarians interact with faculty to integrate information literacy into curricula. It sought to determine what opportunities exist for specialist academic librarians in integrating information literacy, and to identify why these opportunities have arisen, and what were the factors involved in their creation. Research sub-questions have driven the accomplishment of these objectives by focusing the direction of the data collection through the interview questions, and by providing a framework for data analysis. The research sub-questions are as follows:

1. What are the ways in which librarians in specialist academic libraries can promote and provide information literacy value in an academic setting?

2. What are some of the successful strategies for achieving information literacy integration into curricula?

3. Do librarians perceive that particular types of information literacy program are more successful or relevant to the disciplines these libraries support?

4. Are there particular subjects or levels of education within a discipline which are more appropriate for the integration of information literacy?

5. Are there specific factors which help or hinder specialist academic librarians in integrating information literacy into faculty curricula?

6. What factors allow faculty and librarians in specialist academic libraries to work together more closely to help students gain information literacy competencies?

7. Do librarians in specialist academic libraries need to convince faculty that knowledge of information literacy is their area of expertise, or do faculty recognize this?

5. Definition of terms

1. *Specialist academic library*: a library whose holdings relate to a specific discipline or disciplines, often situated in close proximity to the academic faculty which it supports. The specialist academic libraries in this project are satellites of a centralized library system.

2. *Information literacy*: Information literacy involves the effective utilisation of information. Core elements include determining the information need, accessing information effectively, critically evaluating the information and its sources, incorporating the information into a new knowledge base, using information effectively to achieve a purpose, understanding its cultural, legal and economic aspects, and using the information ethically (Owusu-Ansah, 2003).

3. *Faculty:* Academic staff members who are responsible for creating and teaching course content in a specific subject discipline.

6. Theoretical framework

Questions relating to information literacy and its relationship to discipline-specific curricula were considered in light of recent theory on information literacy in Library and Information Science scholarly literature (Owusu-Ansah, 2003), and incorporated elements of emerging educational paradigms focusing on student-focused learning. Aspects of constructivist theory relating to the importance of context and subject discipline to the creation of knowledge by the learner were utilised when analyzing methods of fulfilling students' information literacy needs (Kanuka & Anderson, 1999). Key authors who provide an important framework for the consideration of faculty-librarian relations and culture include Hardesty (2005), Farber (2004), Gullikson (2006) and Cannon (1994). Aspects of feminist theory concerned with power relations (Olesen, 1998), and postmodernist approaches to the political context of communication will be taken into consideration when analyzing the data obtained from interviews (Punch, 2005, p.140). Theory in qualitative research is often emergent, therefore rather than utilising specific theoretical models, previous theory relating to the various areas under investigation has been incorporated where applicable in the early stages of the project. During the process of data analysis, both within and after the interview process, the theoretical framework outlined above, based on the works of the authors cited, underpinned and directed various angles and areas of exploration, and provided context for the findings and the conclusions which were drawn from them.

7. Research paradigm

Given the highly contextualized nature of the research, the importance of the interaction between the researcher as research instrument and the participant in the creation of knowledge, and the methods of obtaining information, it was clear that in this project the researcher should adopt the interpretivist paradigm as the structure within which to work. The nature of the information sought, for example personal testimonies, responses to questions exploring the interviewees' experiences, interpretation of interactions between the researcher and the participant, and perceptions both of the researcher and the participants, dictated an interpretivist approach. The information which was retrieved was intrinsically tied to the context. Qualitative research, which operates within an interpretivist paradigm, is able to capture context, and thus the complexity of factors involved in the process by which events occur (Gorman, Clayton, Shep, & Clayton, 2005, p.6).

It was considered inappropriate to approach a research problem of this nature by assuming a positivist or post-positivist stance (Pickard, 2007, p.7), by attempting to remove oneself as the researcher from the act of gathering data, and from using methodologies which would not yield the richness that the in-depth interview would provide. The data with which the researcher worked would not have been able to be effectively utilised within a positivist, quantitative methodology, and the results will not be generalizable in a wider sense. A positivist or even post-positivist paradigm establishing a universal reality was thought to be unsuitable for understanding the subtleties and nuances of the highly personalized, contextual information that was sought. The project did not start with a hypothesis to be disproved or variables to be identified, isolated and examined under controlled conditions.

The researcher acknowledges that his own biases and beliefs must necessarily impact on the research that was conducted, both in the collection of data through the interview process, and in the analysis of the data at the time of collection and in the later stages of open and axial coding. The researcher strove to identify and make allowances for the influence that these biases would have. Part of the responsibilities of the researcher's current employment position involves working with faculty on issues surrounding information literacy. The researcher recognized that there was the potential for bias and misunderstanding when gathering and analyzing the data provided by interviewees, and was cognizant of this fact both during the process of data collection and afterwards when focused solely on analysis.

8.   Methodology

The interview process:

In order to gather data for this research project, the researcher interviewed five librarians from two specialist academic libraries. Purposive sampling was used to identify librarians who had had experience working with faculty for the purpose of integrating information literacy into curricula. The libraries in question were both specialist libraries within the University of Auckland. These two libraries were chosen as they hold very different types of information, which is utilised by students undertaking degrees in very different disciplines.

The scope of this project, limited as it is by time frame and size, did not allow the collection and analysis of data from faculty members, with regard to integrating information literacy into their curricula. A future project could develop the theories and methodologies employed in this project in order explore this area from the perspective of faculty members. Accordingly the findings of this project must be understood to arise from information obtained solely from librarians, and reflects their perceptions, rather than those of faculty or students.

The researcher collected data by interviewing the participants identified above. The interviews were conducted in an open format, rather than being highly structured. The researcher planned to ask a series of ten questions (see Appendix A: interview questions), and initially imagined that answers to the questions could be of considerable length and depth. Interviewees were encouraged to contribute as much information as they wanted and were not restricted or redirected unless there was some previously mentioned topic which the researcher wanted to explore further.

As the themes involved were not clearly identified prior to data collection and analysis, and the researcher was not trying to validate previously formed opinions, it was considered that the research question would not be best investigated by employing a strict, highly structured questioning process expecting results falling within set boundaries. Given that some data analysis occurs at the same time as data collection, and can influence and direct additional questions, it was necessary to allow the interview process to be open and fluid. In this way themes were able to be explored and developed as they arose within the context of the current conversation.

The findings of this research project were drawn from the information obtained through the interview process. The researcher understood that he would have biases and assumptions from researching the literature for this project, and from his current employment position, which he attempted to minimize in interactions, and compensate for in the interpretation and analysis of the

information gathered. There were instances within the interviews where the researcher recognized parallels with his current occupational situation, but did not raise them with the interviewee as he did not want to unduly influence the information being provided. On the whole, however, the researcher felt that his experience allowed him a greater understanding of some of the issues involved, and provided a degree of empathy with the interviewee. This was alluded to at various stages within the interviews, interviewees preceding an answer to a question with "As you know …" (I3, Q9). The researcher was aware of the need to be careful not to influence unduly or lead the interviewee in the provision of information.

Note that the system used to reference direct quotes from the transcribed data is as follows: (Interviewee#, Question#), for example (I3, Q5) refers to a statement by Interviewee 3 as part of that interviewee's response to Question 5.

Data collection and analysis

Given the qualitative nature of the open interview process of data collection, some analysis of the data gathered was undertaken as the researcher conversed with the interviewees and received their responses to the questions. Where interviewees had briefly mentioned topics of relevance to the research question, the researcher constructed qualifying questions designed to encourage them to provide more information on these topics. A significant reason for the interview being used in a qualitative methodology is the ability of the researcher to act upon the information received in order to elicit more information, change the line of inquiry to more closely examine areas of interest, or to clarify perceived ambiguities in the data.

Prior to gathering the data, the researcher had decided to employ open coding, the process whereby basic data transcribed into textual form is given the first stages of conceptualization (Punch, 2005, p.205). He then planned to employ axial (or theoretical) coding, to highlight and specify links between the related concepts identified through the open coding stage. It had been anticipated that memoing would be carried out throughout the data analysis process. It was considered that the stage of selective coding, the 3rd and final link in data analysis and theory formation in Grounded Theory research, would not be reached (Punch, 2005, p.211).

Interviews were recorded in digital .wav format on an electronic recording device. Interview sessions took between 15 and 35 minutes. The electronic files were transferred to the researcher's computer, and were transcribed from audio to a textual format.

It must be noted that the interviews themselves took place later than had been initially anticipated in the proposal timeline due to the proximity to the start of semester and the interviewees' teaching responsibilities. It was also very difficult to engage in any significant memoing or data analysis during the transcription phase due to the degree of concentration and focus needed to accurately perform this task.

Initially the transcribed data from each interview was arranged according to interviewee, meaning each interview session was recorded in one document. The first stage of basic open or descriptive coding was performed when these initial textual representations of the interview were divided into sections representing each of the ten questions asked. This involved examining the text of the conversation closely to identify when each specific question was asked.

At that stage it was possible to identify some aspects of the interview process which accounted for some of the variation between responses to each question. Due to the open nature of the interview style it was not possible to clearly separate each question from the context of the material which had been discussed earlier. Often interviewees would use a particular question to address certain issues which they thought were relevant to the research investigation. This resulted in a large amount of personal and anecdotal information being provided, which proved very useful on later analysis due to its subjective, contextualised nature. This also meant that some questions were effectively answered in advance, and the transcriptions show more than one occasion where the researcher precedes a new question with the words "I think that you have answered this earlier…". Interviewees were always willing to reiterate what they had expressed earlier, and in some cases provided clarification or new material building on what had already been said. The researcher also made use of opportunities which presented themselves within the interviews to enquire further into the interviewee's knowledge about the wider topic or to seek clarification of information previously given.

Once the textual transcription data had been grouped according to question, the researcher applied a further level of coding, identifying a brief answer to the question or questions posed by each of the interviewees, and the main concepts and themes arising out of that section of data. This stage of thematic coding proved very useful in further data analysis as it provided a summary and index of the material contained within each question document, and allowed clear consideration of the themes arising from the data.

As a result of interviewees effectively answering some questions before they had been asked, the researcher anticipated that there would be a lot of thematic overlap between questions. One of the stages of the coding schedule thus developed included identifying where specific concepts and themes arose over

different questions, in order to ascertain what, if anything, the context of the recurring themes contributed. Although it was apparent that similar themes and concepts did occur in different places in the textual data, this stage did not yield the results and insights initially hoped for and was a less fruitful part of the coding process.

Once the main concepts and themes of each question had been identified, the researcher sorted them according to relevance to the research project's focus, in order to ascertain which related to the opportunities for specialist academic libraries to integrate information literacy into faculty curricula. Further consideration of the relevant themes led to their arrangement into higher levels of grouping, corresponding to the three main topics of the Findings section, namely accessibility, visibility and the ability to provide information literacy content tailor-made to specific courses. A significant amount of material regarding information literacy and library-faculty relations was not related closely enough to the specific focus of the research project to be able to be utilised.

Memoing was used to great effect throughout the data analysis process, from the completion of the transcription of the data into textual format to the final stages of writing the Findings sections. Memos were recorded in a single document in chronological order with each entry dated; it was thereby possible to see the progression of the researcher's thought in working with the data and creating connections between the concepts and themes which were revealed. Memoing was conducted concurrently with the different levels of coding of the data, allowing the researcher to instantly record particular insights or potential themes for exploration, and proved to be an effective coding tool for data analysis.

In the initial stages of textual data coding, qualitative data analysis software was experimented with, but given the amount of data being processed, and the sorting and locating abilities of the word processing software which the researcher was using, he decided that no extra software would be employed.

9.   Findings

A number of findings relevant to the research question emerged from the analysis of the data obtained through the interviews. Interviewees thought that they were very accessible to academic faculty members, and thought that this accessibility definitely facilitated dialogue on information literacy initiatives. They also felt that they were visible to academics, and that this encouraged communication, and thereby potential for information literacy collaboration. Interviewees also thought that the ability to tailor information literacy instruction to a specific subject discipline was an important factor in the process of integrating information literacy into courses. The following sections will consider how these themes arose from the analysis of the interview data.

Accessibility

A high level of accessibility is one of the opportunities which the interviews identified as facilitating specialist academic librarians' integration of information literacy into faculty curricula. Accessibility in this sense is comprised of physical accessibility, based on geographic proximity, and the approachability of subject librarians, signified by an 'open door' policy and their willingness to engage with faculty members. All of the interviewees believed that academic faculty members considered them to be more accessible than if they had been in a centralized library, responding emphatically and unequivocally in the affirmative to Question 6 (see Appendix A: interview questions). The librarians interviewed in this project either worked within the same building as many of the academic faculty members whose disciplines they supported, or were within the same block of buildings. Comments were made on the value of this proximity: "I think it's easier for us to be in the building." (I3, Q5); "Being on site… definitely it's valuable" (I4, Q5). The inference is that it would not take very long at all for one party to visit and speak with another party face to face. As one interviewee said: "The closer you are, the more likely they're going to come and contact you, and they know they can be down here in two minutes" (I3, Q5). When questioned, this interviewee thought that this proximity meant that as subject librarians they got more business, and believed that faculty academics would be more likely to collaborate on information literacy integration into curricula.

The theme of academics and students having to travel a certain distance to access subject librarians was raised by two interviewees. One remarked that having to travel further to visit a centralized library would impact utilisation of subject librarian services, stating: "that would really reduce the amount subject

librarians were used, you know" (I4, Q5); another gave an example of time working in a previous library where the only academics regularly seen were those in the same building, that she "practically never saw the others unless I went to them. They didn't come to me" (I1, Q6), and that, figuratively speaking, "academics don't cross roads"(I1, Q6). In order to gain a comprehensive picture of the degree to which physical distance between academics and subject librarians in their discipline impacted on their interactions, it would be necessary to gather data both from subject librarians in a centralized library system, and from the academics whose discipline's subject material is housed in the two different types of library. The scope of this project precludes an investigation of this magnitude; it is apparent from the data gathered that interviewees perceived that physical proximity greatly increased accessibility.

Another interviewee believed that because subject librarians and academics were physically close, they had closer relationships, and that this facilitated collaboration on information literacy initiatives (I2, Q6). This constitutes a part of the strong community of subject-specific professionals, a concept which will be discussed later.

An important factor of the accessibility of subject librarians to academic faculty members is that they believe that the academics know where they are. They have been shown the locations of librarians' offices and workrooms, and depending on the degree to which they utilise the library's resources, they are on site and are familiar with the particular environment. Librarians offer tours of library facilities to new academic staff so that they know the subject librarians for their particular discipline, and knowing the location of their offices or workrooms are able to visit them if they need assistance. One interviewee elaborated on these tutorials: "for every new staff member, and every subject librarian like me also if we have a new staff member in the department, then I will give him or her a tutorial, on how to use library resources… And that would outline everything that the library staff would do or the subject librarians would do" (I2, Q6).

The degree to which this accessibility is utilised was exemplified when the researcher went to meet with one of the interviewees to conduct the interview. The interviewee was busy with an academic who, as it turned out during the course of the interview, had decided he needed to discuss an aspect of his course material with his subject librarian, so had walked downstairs, into the library, and into the office of the interviewee. The academic knew who to talk to with regard to his problem, knew where to go, to the degree of knowing which office to go to, and knew that the subject librarians practised an open door policy, so that he literally could walk up to the door and see if the person was busy. Assuming that the academic had been working in his office when the problem was discovered

and had returned there afterwards, the problem-solving process would have taken a matter of minutes.

As well as being accessible in their formal work spaces, in offices or workrooms, when librarians and academics work in the same general area, there is increased chance for communication to occur in more informal settings. As one interviewee related, there are opportunities for interaction "on your way back from lunch or whatever it is… and if you have tea with them too… We have a communal tearoom" (I3, Q6).

One of the interviewees did mention that although he believed that being more accessible did help information literacy integration, it was only to the point that it helped to 'get your foot in the door' (I5, Q6)., and took less effort to initiate dialogue on collaboration than it might for librarians in a centralized library, but did not in itself make information literacy integration inherently more successful. This idea was also raised by another interviewee, who thought that it took less effort for specialist academic librarians to build links with faculty, and therefore might allow them to devote more time and effort to developing features of information literacy integration: "I think the subject librarians in [centralized libraries] have to work a lot harder than we do to build linkages with their faculty… Which they can do, but it's just more hard work, effort. Effort that they could have been putting into something else is put into that." (I1, Q5).

Visibility

Visibility involves faculty members' awareness of subject librarians within the subject discipline environment, and is related to their prominence within that environment. Interviewees were aware of the benefits of visibility, as opposed to anonymity, and felt that it influenced their ability to integrate information literacy into faculty curricula. Subject librarians in a specialist academic library are well known to the people who utilise their knowledge. The amount of time that the librarians themselves have been in the role obviously has an impact, but as part of a small environment, specialist academic librarians are very visible. As one interviewee said: "our departments, I mean, the personnel, the academics, technical staff etc, support staff… they do know us". (I4, Q5). This aspect of being known, of being recognized as being part of a community, results in part from being visible within a certain common and specific area comprising the library and surrounding faculty buildings.

Initial introductions and orientation tours for new staff, and regular scheduled meetings or 'library update' sessions, allow subject librarians and academic faculty members to get to know or re-acquaint themselves with each other. Interviewees commented on the effectiveness of regular meetings: "we call

it the annual visit, the subject librarians' annual visit. Once a year is not enough, but… you know, we can see the effect there. We can build up a relationship there, the library and the academic staff." (I3, Q1). Providing such tutorials to academics also provides visibility in more indirect ways, by being seen to be giving material to others. One interviewee remarked: "One academic said to me: I was going past the door of so-and-so and you were showing them a graph, what was that?" (I3, Q3). Being established in the teaching of courses also heightens visibility. When academics see what librarians are already doing with other courses, "they say: ah, that's great, that's a good idea, can you do that for my course as well, something like that?" (I2, Q1). Regular update sessions also allow subject librarians to market library resources. Relating these resources to the particular academic's work can be a useful way of encouraging their adoption: 'the new citing features, Scopus and Web of Science were two of the favourite things over the summer… because they could look up their own name and see who had cited them, and they had all this flash data and everything, and they really liked that' (I3, Q3). Piquing academics' interest in such a fashion has a very practical benefit with regard to integrating information literacy material into courses: 'Because it's [in update sessions] that you can tell them what you've got to offer, show them as I said the new resources, which are an excuse to get a foot in the door, really, and then find out if they need it for teaching'(I3, Q3). In one library this technique has proved remarkably effective: 'we have been very successful, as the others may have told you we are teaching more programmes this year than ever before' (I3, Q3).

From this groundwork relationships can develop through informal meetings in the process of conducting everyday business, whether that constitutes conducting research in the library, passing one another in the corridors of the building, or taking a break in the communal tearoom. Librarians do actively seek to promote their visibility; one interviewee attends faculty meetings and actively advertises the skills and experience of the subject librarians, and canvases for academics' material for exhibitions both within and outside the library. There are specific ways of doing so in order to achieve the best results: "In the email I'd turn it round their way, what is the advantage to them of doing this, and I'd say, would you like us to showcase your research? Not what the library displays… because, you know, 3000 people a day passing by, great way of getting new postgraduates for your courses" (I3, Q3). Such activities encourage academic buy-in to library initiatives, raise the profile of the library and contribute towards the sense of community including academics, students and the library.

Being more visible can facilitate collaboration on information literacy initiatives. As a response to the second part of Question 6 (see Appendix A: interview questions), one interviewee stated: "They see more of me and I see more of them. Because they come into the library and there's that tripping over

each other thing, and we talk about things more than if you have to make an appointment to go and see somebody"(I1, Q6). Being visible can provide increased opportunities for communication, which are highly useful when working on collaborative ventures such as information literacy integration. Visibility is also dependent to a significant degree on proximity, and in this way is similar to accessibility.

Being in a smaller environment such as a specialist academic library compared to a centralized library system does allow subject librarians to be more visible, and does allow them to be perceived as having a high degree of subject-specific knowledge, simply because there is more contact. Being seen, being known, being associated with knowledge of certain materials through your professional position, all can help reinforce the legitimacy of one's role within a particular community. One interviewee remarked: "There's something very powerful about … having your own library and [academic faculty staff] know where everything is and they know everybody" (I1, Q5).

An aspect of the visibility enjoyed by subject librarians is the fact that they think that faculty perceive them as experts on information literacy. When specifically asked whether they thought faculty considered them to be experts on information literacy, all interviewees responded in the affirmative. One interviewee commented: 'I would like to be perceived that way, of course, but I think I am… it is actually a reality.' (I4, Q4). Another interviewee stated: 'I think they know that we have a lot of… across the board, we have a lot of expertise…[the library] is where you go' (I5, Q4). Interviewees actively worked on promoting their visibility in this respect, and faculty staff do respond to this effort on the part of the librarians. One interviewee commented: 'we always remind them, when we visit the academic staff, please send your new postgraduates to us, and they're: oh, I will, I will.' (I2, Q4). Librarians' information literacy expertise is consequently heavily utilised: 'if new students have any problems they say, go to see the librarian, go to see [the interviewee], and she will help you.' (I2, Q4).

Although academic staff do recognize that librarians are information literacy experts, interviewees reported that there was a significant range of awareness of what information literacy actually entailed, and of what degree of benefit it was to their students. Commenting on academics' support for library-driven information literacy initiatives, one interviewee stated: 'we've got a lot of support… because a lot of staff, they are good library users as well, so that's why they can understand that… they can see the benefits the student can get' (I2, Q3). Another remarked: '[academic staff] don't necessarily understand information literacy until you tell them about it, and they need a good concrete example of how it can be done' (I3, Q3). Often a lack of knowledge can prevent academic

staff understanding how librarians can offer information literacy instruction: 'there are certain things that we've come up against… such as, they think it will take a lot more time if they do it, or they'll need to rewrite their whole course.' (I3, Q3). In such cases, communication between librarians and academics is vital, for in many cases integration does not take so much effort: 'sometimes it's just a twist in a certain test or assignment, which means that the students have to think for themselves, and become more information literate' (I3, Q3). Awareness of what the library could offer in terms of information literacy instruction was often linked to library usage: 'I'd say there are some that are very, you know, very aware, of what we provide, and what we can provide… and I think those ones I tend to see a lot, because they'll come to me, during the year, over and over again for information. But there are others who… I'd have to make the effort to see them, they won't come here, and they'll also be the ones generally, who don't, are not aware of what the library can offer' (I4, Q3).

Greater visibility also has indirect benefits. It may take less time for academics to recognize a subject librarian's subject-specific knowledge in a specialist academic library due to greater visibility and accessibility than it might in a centralized library. Recognition of this legitimate role within a community may facilitate collaboration on information literacy initiatives. As one interviewee says of academics' willingness to participate in information literacy integration: "if it was coming from someone more established, it may carry a bit more weight… I don't know if Johnny on the spot who shows up on his first day with all these bright new ideas…" (I5, Q5).

One interviewee did, however, identify a negative aspect of heightened visibility, raising the idea of some tasks being in fact detrimental to attempts at collaboration on information literacy initiatives: "it actually would raise my perceived professional status, you know, if I'm seen to be teaching. Whereas if I'm at the front desk, stamping books, I mean, anyone can do that, you know, what professionalism is there?" (I4, Q9). It is therefore apparent that there is a limit beyond which increased visibility can impact on specialist academic librarians' effectiveness in integrating information literacy. This also highlights the issue that due to the fact that staff resources are generally smaller than in centralized libraries, librarians in specialist academic libraries often have to undertake a variety of job tasks.

Tailor-made courses:

Specialist academic librarians are able to provide information literacy instruction in a specific subject context. This is by no means unique to these librarians, but because they are creating assignments or tutorials to be taught

within a particular course, they can ensure that the information literacy skills and competencies taught are grounded within the context of that course or subject. From the data obtained from the interviewees, it is apparent that the information literacy tutorials and lectures, and the assignments embedded within courses, are tailored to the specific papers within which they are presented to students.

Tailoring information literacy material within courses can address concerns from two interested parties, students and lecturers. Students have been known to be less receptive to absorbing information literacy material within generic contexts, to query the relevance of what can sometimes be completely foreign concepts, especially if examples are presented within a different subject discipline. Remarking on the importance of integrating information literacy within subject-specific contexts, one interviewee says: "students perceive, you know, they say look, I'm doing a [subject discipline] course, I'm not doing a library and information science course" (I4, Q3).

Interviewees thought that being able to tailor their courses was a major strength, as it allows specialist academic librarians to create courses to fit both the needs of the lecturer and students in terms of subject-specific material such as particular databases, and the library by being able to incorporate information literacy material. One stated: "I guess what I see as the real opportunity for academic libraries in providing information literacy is that, I mean, we're tailor-making our courses. So as long as we're doing that, I mean, we can include as much of the stuff as we like, so long as, you know, it's not treading on the toes of faculty staff, and as long as it's covering what their needs are" (I5, Q4). Other interviewees voiced similar sentiments: "All the courses we offer are course-related… the library courses are course-related, rather than generic." (I1, Q2). Many of the examples provided by interviewees regarding past information literacy integration referred to a specific paper and course code, and integration programmes were referenced by that paper or code. The inference is that information literacy integration programmes are sufficiently tailored to each course to be recognized and identified by the paper name.

Creating tailor-made courses to fit specific subjects is not always straightforward. Interviewees commented on more than one occasion that there were some subjects that it was very difficult to integrate information literacy assessment material into. On the subject of trying to identify papers suited to information literacy integration, one stated: 'it proved to be really difficult because so many [subject discipline] papers… just don't lend themselves to that sort of thing' (I1, Q1). Another comments: 'But yeah there are some where it's going to be impossible to do the traditional information literacy stuff' (I1, Q7). Courses where there is a research component within the assessment are preferable

to those where all the required information is provided to students, through textbooks or course-books, for example.

Interviewees also said that there were external factors outside their control which could impact on even a successful and implemented course. Interviewees from one library commented on the success of information literacy integration into two courses taught at first and second year, but which were withdrawn from the degree structure and no longer taught: 'we were, sort of integrated into those papers, but those papers stopped, of course, and we had to start again' (I3, Q1). Collaborative ventures between academics and librarians can also be affected by personnel changes or staff going on leave: 'I did a pilot one… and then the academic that I was working with went on sabbatical for a year so that didn't go any further' (I1, Q1). One of the implications of this is that rather than being institutionalized within the wider university system, information literacy integration currently does depend to a significant degree on the relationship between librarian and faculty staff member. Given the specific nature of tailor-made courses, having to start again does entail more work, but as one interviewee said: 'Well obviously whenever you do something new there's a lot of learning about it figuring out the best way to do it… but after you've done one it's not too bad' (I1, Q9).

One of the major reasons why being able to provide information literacy instruction within a subject-based context is such a powerful tool is that it encourages greater buy-in from lecturers. As evidenced in the literature earlier, academic faculty staff are under enormous time pressure to fit everything they think is required into a particular course. Having to give up time to something they may not perceive as being really relevant to what they are teaching is enough of a disincentive to make some lecturers not want to allow information literacy integration into their course. The interviewees were cognisant of this problem: "In some cases, you know, we're not overly welcomed, you know, because, well, we're basically told that, look, we haven't got the time, we can't give you any lecture time, we can't give you tutorial time, you'll have to do it in your free time." (I3, Q3).

Some interviewees thought that while academics might not specifically view attempts by librarians at information literacy integration as deliberate attempts to encroach on their academic teaching domain, "they are very defensive about their class time and their marks. Especially since the general degree came in, they feel they've been squeezed, and… you know, that 3% is really precious to them and they want to do it on [their subject] (I1, Q8). This is qualified by the comment that although academics recognize and respect the importance of being able to effectively utilise information, "they just don't want to teach it in their class" (I1, Q8).

Others did encounter resistance: "there were some defensive people… who thought that we wanted to take over their course, and needed quite a lot of reassuring" (I3, Q8). Overcoming this resistance can be done in a variety of ways. The same interviewee adds: "they can be shown that sometimes it's just the way they turn their question around, they don't have to do any more work or anything, but instead of asking for something cut and dried they can ask for something in a way that's more open, and requires the student to have to go and find the information" (I3, Q8). Academics' expectations of extra marking can be a deterring factor, and needs to be addressed, as it is important not to add to their already large workload. Assignments incorporating automatic marking, or utilisation of peer marking software are ways of eliminating the marking issue from the list of academics' qualms about integration.

One interviewee clearly summed up the problem facing information literacy integration with regard to academics' courses: "Every academic's under a lot of pressure, and time pressure, and also, you know, the marks problem is that they have only so many marks, they have only so many lecture times, only so many tutorial times, so, you know… and every year they're required to teach even more in their subject disciplines, so, and then on top of that, somebody says, look, can you throw in, can we throw in, you know, a library tutorial and a lecture, well, you know…" (I4, Q8).

It must be said, however, that each of the interviewees who commented on academic unwillingness to participate in information literacy integration provided examples of where course integration did work, where lecturers did recognize the value of information literacy to the students and sought ongoing partnerships not only within particular papers, but also on a higher level, actively seeking information literacy integration into papers within their discipline. Describing occasions where she brought up the idea of information literacy integration with academic staff members, one interviewee recalled: "we got a lot of support from staff as well, and then also received suggestions: ' oh, this course may be useful, so that you can embed this course, the library course into this course'" (I1, Q1). Interviewees at one library commented that more papers were being taught in the current year than ever before, and more were expected for the upcoming year, and that information literacy was becoming more and more recognized. One interviewee noted that the idea of information literacy was increasingly penetrating the various levels within the University; regarding the opportunities for information literacy integration, he commented: "maybe, you know, next year, it's more possible than it was two or three years ago" (I4, Q5).

10. Conclusions and implications

The findings of the data above point to a number of opportunities for specialist academic libraries to integrate information literacy into faculty curricula. Ease of access, heightened visibility within a shared physical location, and the ability to provide information literacy instruction in formats which have been tailor-made to specific courses mean that specialist academic librarians hold a legitimate, clearly identified position within a community. The implications of these themes will be considered below.

Accessibility

Librarians in specialist academic libraries are highly accessible by faculty staff members, due to the close physical proximity of their workspaces and the fact that as part of a smaller environment, each knows where the other can be found. This ease of access means that if academics and librarians needed to talk to each other about some aspect of an information literacy project, rather than schedule an appointment for a meeting, it would be possible for one simply to walk to the other's office in a matter of minutes and check whether that person was available. It was apparent that the librarians interviewed place a lot of importance on maintaining strong librarian-academic relationships. They strive to promote availability, pursuing an open door policy, and as they make an effort to get to know those who would want to come and see them, namely members of their subject departments, they greatly facilitate their approachability.

When academics know where subject librarians can be found, know that they can be literally a matter of minutes away, they are much more likely to approach them and utilise their services. As they become accustomed to the ease with which interaction with specialist academic librarians can take place, one assumes that such utilisation will become more frequent. As librarians reciprocate by offering updates on new library resources, for example, relationships are strengthened and community bonds are reinforced.

Accessibility facilitates information literacy integration in a number of ways. Academics and subject librarians are more likely to have a closer working relationship. Academics know who the subject librarians are, they know where they are, they know that it is quick and easy to come and see them at any stage, and that the librarians will be willing to talk to them. This high degree of accessibility would make academic faculty members more comfortable both collaborating with subject librarians, and with librarians initiating dialogue on information literacy integration. A high level of accessibility is an important part of a strong, effective community. When queried about the extent to which

increased accessibility impacted on information literacy integration, interviewees were unanimous in stating that it did have a positive effect, although the general perception was that it helped by contributing to the amount of communication librarians and academics were engaged in. It facilitated information literacy integration by increasing the opportunities for the communication necessary to organise and successfully engage in collaborative ventures.

Visibility

A high level of visibility provides specialist academic librarians with opportunities to integrate information literacy into faculty curricula. They believe their visibility, in addition to being recognized as information literacy experts, facilitates communication with academics and makes them more amenable to being approached about information literacy integration into the courses they teach.

Although by no means the only factor, greater visibility is linked to greater perception of subject-specific knowledge. Academics know specialist academic librarians, they know what they do, and due to the fact that they see them more regularly than perhaps subject librarians in a centralized library, there is a greater chance for reinforcement of their subject-specific knowledge to occur. Subject librarians also believe that academics perceive specialist academic librarians as being experts on information literacy. Interviewees unanimously agreed that academics thought this of them. The combination of the above, being recognized for having subject-specific knowledge, and being considered as an expert in information literacy, helps specialist academic librarians considerably in approaching academics about information literacy integration into the courses they teach.

Regular formal contact with academics through scheduled library tutorials can be a significant factor in raising the profile of the library, and of subject librarians as the people providing information on new and updated resources. Some of the interviewees stressed the benefits of an annual one-on-one meeting with each staff member in the departments they supported, in terms of being able to ascertain whether information literacy could be integrated into any new or existing courses.

Although specialist academic librarians do enjoy a high level of visibility, and the subsequent benefits for information literacy integration, the librarians interviewed did identify this as something which generally could use more development. Greater visibility would result in more courses having library-driven information literacy integration, and more information literacy content reaching students. One interviewee thought that if the library could create and

teach an information literacy paper, oriented within the context of the subject degree being taught, but which was a compulsory and complete paper within itself, the profile of the library would be raised, making it more visible to a wider audience. This could increase the uptake of information literacy competencies among students, and contribute towards the elevation of the perceived status of librarians to that of professional teaching academics, similar to that of librarians in other countries such as the United States of America and China. Another interviewee thought that libraries needed a specific marketing strategy designed by professional marketing consultants to market information literacy and the library's role in its integration. Such a strategy would need active and visible support from the highest levels of university management to be successful.

Tailor-made courses

While the ability to tailor information literacy instruction to specific courses is not unique to specialist academic librarians, it is nevertheless a powerful tool in the struggle for greater information literacy integration, and one that subject librarians in specialist academic libraries can utilise to great effect.

Embedding information literacy material within a subject-specific context allows the concepts and theories of lifelong learning, critical evaluation and utilisation of information, and other core information literacy concepts to be presented within a framework which is familiar to students and provides a context of relevance to the particular courses and degrees the students are doing.

Providing information literacy in a particular subject context can provide some counterweight to the issue of lecturer resistance. Teaching specific information literacy competencies using the wider context and subject matter of the course within which it is embedded means that there is not such a separation between the information literacy components and the rest of the course, and that the lecturer can be reassured that even if the students are not being taught new subject material, the context within which information literacy is being taught may serve to reinforce knowledge and understanding of the subject matter.

Interviewees have worked with course material provided to students in order to embed information literacy concepts within the context of the materials the students utilise on a regular basis, using that subject-specific material to create a link between lecturer-driven and librarian-driven teaching. Specialist academic librarians are also able to approach lecturers teaching particular courses and offer information literacy integration tailored to the specific material taught in that course. Interviewees were able to identify particular papers which might have been amenable to information literacy integration and suggest to academics that information literacy components might be included in their course. Such papers

often had specific characteristics, such as research or self-directed learning components.

The ability to create courses to fit particular papers taught might serve to reassure lecturers to some degree that their papers and subject content is not being compromised or burdened with unrelated material. However, the pressure put upon lecturers in terms of fitting an adequate amount of subject material into a paper remains and there may always be that tension between what lecturers believe students need for their subject-specific requirements, and what librarians believe will benefit students in a wider information utilisation context through their appropriation of information literacy competencies.

Members of a wider community

The concepts addressed above contribute to an over-arching theme, that of the strong community within which subject librarians can operate, a community also including academic teaching staff, technicians, administrative and support staff, and students. Being accessible, being visible, being perceived as both as knowledgeable within their particular subject area and as an information literacy expert, and being able to integrate information literacy into courses, contextualised within the particular subjects, show that subject librarians within specialist academic libraries are constituent parts of a community organised generally around location and subject discipline. Membership of a community means that communication between members is facilitated, and thereby librarians' focus on integrating information literacy components into curricula can be undertaken more easily than if by members of the wider university system.

Given that every faculty and library grouping is different, it is not a certainty that there will be a strong community including the above in every instance. Rather there is the potential, the chance to create and maintain the connections and interactions needed for any society to function. On more than one occasion interviewees remarked that it was probably easier to initiate collaboration on information literacy integration than in a centralized library, that specialist academic librarians had a 'foot in the door' (I5, Q6). Although this did not necessarily mean that information literacy initiatives were more successful, it did mean that less effort was required in the initial stages of communication. Being recognized as part of the community is a significant benefit to specialist academic librarians when it comes to information literacy integration into faculty curricula.

None of the librarians interviewed, however, were content to rest on their laurels. Each one wanted to be able to do more work with the academics in their department, and viewed the work that they currently do with academics as of very high importance. Teaching information literacy competencies and working with

academics was given a very high priority, and in some instances meant that other projects or tasks that might normally be carried out were put aside. Being a librarian in a specialist academic library brings responsibilities and duties which librarians in a centralized library might not have to undertake, and operating in a smaller environment means that there are less contingency resources if problems such as staff shortages occur. Interviewees mentioned particular times of the year which were very busy in terms of teaching and preparation, and staff absences through sickness, for example, can have a significant effect on the library environment, as certain tasks such as staffing lending or enquiry desks always need to be fulfilled and are non-negotiable with regard to the effective running of the library as a unit. The necessity for librarians in specialist academic libraries to perform multiple different tasks means that they may not be able to focus exclusively on information literacy promotion and collaboration, and may be required to undertake some tasks which may not fit with their preferred image of teaching professionals. Resolving this issue by increasing staffing resources is often something that cannot be carried out easily due to financial constraints, and so must be put up with in the short term; it is a situation closely linked to the varied nature of position responsibilities in specialist academic libraries. It is debatable whether being seen in a role of lesser stature is preferable to not being seen at all; the researcher assumes that a number of informal conversations have arisen between subject librarians in specialist academic libraries and academics while the former manned the library's lending and enquiry desk.

11. Summary

From the data obtained during the course of this research project, it is apparent that there are indeed opportunities for specialist academic libraries to integrate information literacy into faculty curricula. Due to their high level of accessibility and visibility, subject librarians in specialist academic libraries are able to form close communicative relationships with academic faculty staff. This increased level of communication, coupled with the sense of belonging to a particular community defined by physical location and professional commitment to particular subject disciplines, can facilitate subject librarians' initiation of collaborative information literacy ventures. The ability to tailor information literacy content to a particular course curriculum is a powerful tool for gaining lecturer and student buy-in, teaching necessary graduate information literacy competencies within the framework of specific course content, and countering academic resistance against a perceived loss of teaching time.

12. Appendix A – interview questions

The questions below were approved by the Human Ethics Committee.

1. Does your library have a history of working with faculty to integrate information literacy into courses? Can you provide some examples of this?

2. Have you worked with any faculty members on integrating information literacy into their curricula? Can you tell me more about what form that integration took?

3. In your opinion, how aware are faculty of what your library can offer in terms of information literacy instruction? When did a faculty member last contact you or respond to a faculty-wide email offering information literacy instruction or integration for a course they teach?

4. Do you think that faculty considers you (as a librarian who works with faculty) to be an expert on information literacy?

5. Do you think faculty hold a higher opinion of your subject-specific knowledge than if you were a subject librarian in a centralized library? If so, do you think that this means that faculty would be more likely to collaborate on information literacy integration in curricula?

6. Do you think that faculty members consider you to be more accessible than if you were a subject librarian in a centralized library? To what degree do you think this facilitates collaboration on information literacy initiatives?

7. Are there particular courses within the Engineering/Fine Arts degree which are more amenable to information literacy integration? Do these courses utilise particular information literacy models or programs?

8. Do you think that attempts by members of your library to integrate information literacy into faculty curricula would be seen by faculty as an attempt to encroach upon their academic teaching domain? Can you provide an example where a faculty member has reacted positively or negatively to an offer of collaboration on integrating information literacy?

9. Do you feel additional work with faculty integrating information literacy into curricula would negatively impact your current workload and responsibilities? Can you think of specific instances where there has been tension between your library responsibilities and your responsibilities to faculty? Do you feel that librarians in a centralized library would not have had this pressure?

10. Are there any other factors we haven't talked about so far which distinguishes your library from a centralized library, with regard to the integration of information literacy into curricula?

13. Appendix B: Information sheet

Participant information sheet for a study of the opportunities for specialist academic libraries to integrate information literacy into faculty curricula.

Researcher: Simon Coates, School of Information Management, Victoria University of Wellington

Academic librarians have strong interests in sustaining constructive relationships with faculty, and in assisting the development of the information literacy competencies of the students in their organizations. This study intends to identify how specialist academic librarians interact with faculty to integrate information literacy into curricula. It seeks to determine what opportunities exist for specialist academic libraries in integrating information literacy, and to identify why these opportunities have arisen, and what are the factors involved in their creation. The findings of the study may contribute to the development of best practices of information literacy inclusion and faculty-librarian collaboration in more generalized settings.

This study is undertaken as partial fulfilment of the degree of Master of Library and Information Studies at Victoria University of Wellington. The University requires that ethical approval be obtained for research. Findings of the study will be deposited as a research report in the University Library or electronically in the library's institutional repository, and may contribute to a conference report or academic or professional publication.

Participants will be asked a series of ten questions in a one-on-one interview situation lasting approximately one hour. Data will be collected in audio tape format and transcribed to textual format. Print material and audio tapes will be secured in a locked container. Electronic material will be secured in password-protected locations. Data will be kept for one year after the submission of the research report in June 2008, then will be destroyed. Participants may withdraw from the study at any stage before the start of data analysis on April 16 2008 by notifying the researcher; any data relating to them will be destroyed at that time.

All data collected in this study will remain confidential, accessed only by the researcher and his supervisor. Neither the participants nor the particular library will be identified by name within the study; the University of Auckland will be identified as the institution. Participants may check interview notes and transcriptions, and may request a summary of the findings of the study on the consent form.

If you have any questions or would like to obtain further information about the study, please contact either myself or my supervisor via the details given below.

Researcher: Simon Coates Email: coatessimo@student.vuw.ac.nz
            Phone: 09 3777686

Supervisor: Alastair Smith Email: Alastair.Smith@vuw.ac.nz
            Phone: 04 463 5785

14. Appendix C: Consent form

VICTORIA UNIVERSITY OF WELLINGTON
Te Whare Wananga o te Upoko o te Ika a Maui

Consent to participation in research

Title of study:　　The opportunities for specialist academic libraries to integrate information literacy into faculty curricula.

I have been provided with adequate information relating to the nature and objectives of this research project, I have understood that information and have been given the opportunity to seek further clarification or explanations.

I understand that I may withdraw from the project at any stage before the start of data analysis on April 16 2008 by notifying the researcher. Any data I have provided will be destroyed upon such notification.

I understand that any information or opinions I provide will be kept confidential and reported only in a non-attributable form.

I understand that a copy of the final report for this project will be deposited in the VUW library, and that an electronic copy may be made available in the VUW institutional repository. I am aware that findings based on the final report may contribute to a conference report or academic or professional publication.

I understand that the information I have provided will be used only for this research project and that any further use will require my written consent.

I understand that when this research is completed the information obtained will be retained for one year, then destroyed.

I understand that as a participant I have the right to check interview notes and transcriptions.

I wish to receive feedback in the form of a summary of the findings of the study once it has been completed.

Signed: Date:

15. Bibliography

ACRL. (2001). Objectives for information literacy instruction: a model statement for academic librarians.   Retrieved 2nd August 2007, from http://www.acrl.org/ala/acrl/acrlstandards/objectivesinformation.cfm

ANZIIL. (2004). Australian and New Zealand information literacy framework. Retrieved 2nd August 2007, from http://www.anziil.org/resources/Info%20lit%202nd%20edition.pdf

Arp, L., Woodard, B. S., Lindstrom, J., & Shonrock, D. D. (2006). Faculty-Librarian Collaboration to Achieve Integration of Information Literacy. *Reference & User Services Quarterly, 46*(1), 18-23.

Bennett, S. (2007). Campus cultures fostering information literacy. *Libraries & the Academy, 7*(2), 147-167.

Cannon, A. (1994). Faculty survey on library research instruction. *RQ, 33*(4), 524.

Cheney, D. (2004). Problem-Based Learning: Librarians as Collaborators and Consultants. *portal: Libraries & the Academy, 4*(4), 495-508.

Christiansen, L., Stombler, M., & Thaxton, L. (2004). A report on librarian-faculty relations from a sociological perspective. *Journal of Academic Librarianship, 30*(2), 116-121.

Emde, J., & Emmett, A. (2007). Assessing information literacy skills using the ACRL standards as a guide. *Reference Services Review, 35*(2), 210-229.

Flaspohler, M. (2003). Information literacy program assessment: one small college takes the big plunge. *Reference Services Review, 31*(2), 129-140.

Galvin, J. (2005). Alternative strategies for promoting information literacy. *Journal of Academic Librarianship, 31*(4), 352-357.

Given, L. M., & Julien, H. (2005). Finding common ground: an analysis of librarians' expressed attitudes towards faculty. *Reference Librarian*(89/90), 25-38.

Gorman, G. E., Clayton, P., Shep, S. J., & Clayton, A. (2005). *Qualitative research for the information professional : a practical handbook* (2nd ed.). London: Facet.

Grafstein, A. (2002). A discipline-based approach to information literacy. *Journal of Academic Librarianship, 28*(4), 197.

Gullikson, S. (2006). Faculty perceptions of ACRL's information literacy competency standards for higher education. *Journal of Academic Librarianship, 32*(6), 583-592.

Hardesty, L. (1995). Faculty culture and bibliographic instruction: An exploratory analysis. *Library Trends, 44*(2), 339.

Hardesty, L. (1999). Reflections on 25 years of library instruction: Have we made progress? *Reference Services Review, 27*(3), 242-246.

Kanuka, H., & Anderson, T. (1999). Using constructivism in technology-mediated learning: constructing order out of the chaos in the literature.   Retrieved 25

September 2007, from
http://radicalpedagogy.icaap.org/content/issue1_2/02kanuka1_2.html

Kempcke, K. (2002). The Art of War for librarians: academic culture, curriculum reform and wisdom from Sun Tzu. *Libraries & the Academy, 2*(4), 529.

Kuyper-Rushing, L. (2002). Music libraries: centralization versus decentralization. *College & Research Libraries, 63*(2), 139.

Leckie, G. J., & Fullerton, A. (1999). Information literacy in science and engineering undergraduate education: Faculty attitudes and. *College & Research Libraries, 60*(1), 9.

Madison, O. M. A., & Fry, S. A. (1994). A model for reviewing academic branch libraries based on ACRL guidelines and standards. *College & Research Libraries, 55*(4), 342.

Matthew, V., & Shroeder, A. (2006). The embedded librarian program. *Educause Quarterly, 4*, 61-65.

McGuinness, C. (2003). Attitudes of academics to the library's role in information literacy education. In A. Martin & H. B. Rader (Eds.), *Information and IT literacy* (pp. 244-254). London: Facet Publishing.

McGuinness, C. (2006). What faculty think - exploring the barriers to information literacy development in undergraduate education. *Journal of Academic Librarianship, 32*(6), 573-582.

O'Hanlon, N. (2007). Information literacy in the university curriculum: challenges for outcomes assessment. *Libraries & the Academy, 7*(2), 169-189.

Olesen, V. (1998). Feminism and models of qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *The landscape of qualitative research*. Thousand Oaks, Calif.: Sage Publications.

Owusu-Ansah, E. K. (2001). The academic library in the enterprise of colleges and universities: toward a new paradigm. *Journal of Academic Librarianship, 27*(4), 282.

Owusu-Ansah, E. K. (2003). Information literacy and the academic library: a critical look at a concept and the controversies surrounding it. *Journal of Academic Librarianship, 29*(4), 219-230.

Owusu-Ansah, E. K. (2004). Information literacy and higher education: placing the academic library in the center of a comprehensive solution. *Journal of Academic Librarianship, 30*(1), 3-16.

Owusu-Ansah, E. K. (2007). Beyond Collaboration: Seeking Greater Scope and Centrality for Library Instruction. *portal: Libraries & the Academy, 7*(4), 415-429.

Pickard, A. J. (2007). *Research methods in information*. London: Facet.

Proctor, L., Wartho, R., & Anderson, M. (2005). Embedding information literacy in the sociology program at the University of Otago. *Australian Academic & Research Libraries, 36*(4), 153-168.

Punch, K. (2005). *Introduction to social research : quantitative and qualitative approaches* (2nd ed.). London: SAGE.

Quinlan, N., & Hegarty, N. (2006). Librarians outside the box. *New Library World, 107*(1/2), 37-47.

Rader, H. B. (2002). Information literacy 1973-2002: a selected literature review. *Library Trends, 51*(2), 242.

Schuyler, M. (1998). Achieving a `State of GUI,' Nirvana, and Beyond. *Computers in Libraries, 18*(10), 32.

SCONUL. (1999). SCONUL Seven pillars model for information literacy.   Retrieved 2nd August 2007, from http://www.sconul.ac.uk/groups/information_literacy/sp/sp/spportbw.pdf

Shkolnik, L. (1991). The continuing debate over academic branch libraries, *College & Research Libraries News* (Vol. 52, pp. 343-351).

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), 294-311.

Sult, L., & Mills, V. (2006). A blended method for integrating information literacy instruction into English composition classes. *Reference Services Review, 34*(3), 368-388.

Thompson, G. B. (2002). Information literacy accreditation mandates: what they mean for faculty and librarians. *Library Trends, 51*(2), 218.

Weetman, J. (2005). Osmosis - does it work for the development of information literacy? *Journal of Academic Librarianship, 31*(5), 456-460.

Xu, F. G. (2006). Library service at the "paperless" information center. *Collection Building, 25*(2), 61-65.

Zabel, D. (2004). A reaction to "Information literacy and higher education". *Journal of Academic Librarianship, 30*(1), 17-21.

Word count: 12,429