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ISSUES IN EQUIVALENCE: INFORMATION LITERACY AND THE DISTANCE STUDENT

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ABSTRACT

Information Literacy is a recognised lifelong learning skill, and an expected graduate attribute. With the growth in distance provision of tertiary education it is important to acknowledge the barriers faced by distance students and the difficulties libraries face in delivering equivalent learning opportunities to students who are physically isolated from their institution. This paper outlines the importance of information literacy, the major barriers faced by distance students and makes suggestions as to how institutions and their libraries can better meet their learning needs.

INFORMATION LITERACY IN TERTIARY EDUCATION

It is expected that students emerging from either a campus-based or a distance programme of university study will be equipped with not only discipline-based knowledge and skills but with more generic competencies that will allow them to operate as effective professionals and to continue to learn and develop through life in an autonomous and independent manner. The term "information literacy" (IL) refers to the broad set of skills and understandings that enable a person to recognise an information need, to decide which resources will best answer that need, to use the resources effectively, and to evaluate the information they find (Bundy, 2004). The importance of IL has been increasingly recognised over the past thirty or so years and it has proven to be a fruitful site of collaboration between librarians and academics, both of whom make important contributions to imparting these skills. For on-campus students this is aided by the frequent opportunities for student interaction with librarians and teachers but for distance students both formal instruction and "teachable moments" are less readily available and some thought needs to be given to building them into the learning environment.

EQUIVALENCE

Over many centuries the idea of a university education was synonymous with the attendance by young members of a male elite at seats of learning where older members of the same elite passed on the knowledge and wisdom, not to mention the qualifications, that served to strengthen claims to membership of the privileged group. The rise of egalitarian mass society in the twentieth century led them to extend the availability of this status to areas of society they had been content to ignore for centuries. One of the means by which tertiary education was opened up was through the removal of space and time barriers by the provision of extramural courses; students are no longer required to physically attend the university at set times but can instead study from their homes at times convenient to themselves; through this means the role of student has become viable for such disparate groups as full and part-time workers, for parents with demanding child care responsibilities, for the retired, for prisoners and home detainees, for those whose disabilities make physical attendance difficult or impossible and, most particularly, for those living at a distance from the nearest university (Lindsay, 2004). However, while the notion of equivalence has underpinned all of these developments, if we are to ensure consistency and quality in tertiary education then the underlying reality of the distance student's experience has to be continually questioned, tested and compared to that of their internal counterparts.

Those living close to the university are able to access a range of services, including libraries, on the same basis as internal students and those who have studied internally may have substantial experience in using these resources. On the other hand those living at a distance from the university, or who are otherwise unable to visit it in person, may have little or no face-to-face contact with the institution and its staff. If the use of distance delivery as a means of extending university status to previously excluded groups is to be taken seriously there needs to be a robust equivalence between the learning experiences of internal and distance students (Association of College and Research Libraries, 2004). For the latter group skilfully-constructed study guides provide the content that is delivered in lectures, while assignments provide the opportunity for students to construct their own understanding of the course material and to receive constructive feedback from lecturers. The more informal communication between students and lecturers that may occur after a lecture or by visiting the lecturer's office is made available by means of telephone, letter, email or online discussion. While distance mode may not exactly replicate internal study it should provide an equivalent experience of those factors that characterize university education – the

acquisition of skills that allow the student to actively reflect on content rather than simply passively absorbing and replicating it and to move from being a consumer of existing knowledge to being a creator of new knowledge. This process also involves a transition from a pedagogical mode of learning, with a primarily unidirectional transfer of learning from teacher to taught, to an andragogical one in which the learner takes greater control over the learning process and develops an increasingly independent stance. (Lindsay, 2004)

Since the mid 1990s the powerful communication capacity of the internet has led to rapid growth in the provision of distance education (Bates, 2005, p. 8). In New Zealand the number of extramural students has increased from 14,172 in the year 2000, to 32,850 in 2007 (New Zealand Ministry of Education, 2008). The apparent ease with which material can be pushed out to distant students over the Web has led to increased offerings and increasing numbers of students taking the opportunity to study while working or raising children. For many institutions, Virtual Learning Environments (VLEs) such as Blackboard or Moodle are becoming the standard mode of presentation for distance education; VLEs create an online learning space where students access their course notes and assigned readings, carry out group-work, communicate with their lecturer and submit coursework and undertake other types of assessment ("Integrating e-resources within a university VLE," 2007; Pandya, 2007; Pina, 2007).

LIBRARY SERVICE

If we turn to a consideration of library service the progression from a passive learner (pedagogical) stance to an active (andragogical) can be mapped onto three modes of service delivery:

- The document delivery mode whereby the student is directed to read specific works from a reading list which the library delivers through the provision of borrowing copies, either on campus or delivered to the student.
- The reference mode whereby students approach library staff with their information need and work through a process of searching for and making decisions about relevant information and documents. Librarians traditionally involve students as active partners within this process as much as possible and use the reference transaction as a means of imparting understandings and skills (Rader, 1999)

- The autonomous mode whereby students search for and locate information independently, calling on the assistance of librarians and others only as required for quite specific reasons or when problems are encountered.

There are various means by which students may increase their degree of autonomy and it is probably true that personal attributes play a significant part in their relative success; what is true is that the document delivery process most convenient for providing students with course content plays no significant part in developing independence and that active skills are not to be learnt through an essentially passive involvement. For this reason most courses build in some knowledge discovery requirement relatively early on.

The importance of information literacy has attracted growing recognition as universities have sought to define essential graduate attributes and a number of attempts have been made to characterise it in a more precisely measurable framework. According to the six core standards of the Australian and New Zealand Institute for Information Literacy (Bundy, 2004, p. 11) an information literate person is one who:

- recognises the need for information and determines the nature and extent of the information needed
- finds needed information effectively and efficiently
- critically evaluates information and the information seeking process
- manages information collected or generated
- applies prior and new information to construct new concepts or create new understandings
- uses information with understanding and acknowledges cultural, ethical, economic, legal, and social issues surrounding the use of information

On-campus students can learn these skills in a variety of ways. Face-to-face tuition to class groups, often tailored to specific subjects, papers and assignments, usually produced collaboratively with faculty, are the usual channel for transferring IL skills but individual encounters at the reference desk and one-on-one consultations with subject-specialist librarians also provide learning opportunities to students. Distance students, on the other hand, do not have these opportunities to access the knowledge and expertise of professional librarians and the challenge is to deliver equitable information literacy training to students who are isolated from their library (Needham & Johnson, 2007).

Advances in Information and Communication Technology (ICT) provide greatly improved opportunities to deliver Information Literacy training to distance students.

Many University libraries offer online tutorials and help, designed for both internal and distance students; these range from flash movies showing how to use specific resources (e.g. TULib EndNote and Word (Delft University of Technology, 2008)) to generic information literacy tutorials (e.g. TILT (University of Texas System Digital Library, 2004)) (Holliday, Ericksen, Fagerheim, Morrison, & Shrode, 2006). These materials are, in the main, located on the library website with the objects themselves in an attempt to provide help at the point at which it is needed. Online tutorials are often presented in sequential modules, each one building on the skills already learned in order to lead students through the process to a point of mastery; in some institutions these can be completed for credit toward the student's qualification (University of Winnipeg Library & Information Services, 2006). In order to provide reference service to distance students, libraries are offering help via email, chat and text/SMS. Many libraries are part of international consortia allowing the provision of 24/7 reference service from librarians in different time zones (e.g. QuestionPoint (OCLC Online Computer Library Center, 2008)), acknowledging that distance students often work at times when the library is not open. In an attempt to be where their students are, libraries are also beginning to establish a presence in Second Life and Facebook (Secker, 2007).

DISTANCE LIBRARY SERVICE AT MASSEY UNIVERSITY

In the New Zealand context Massey University is the only institution offering distance instruction across a broad spectrum of disciplines and provides an opportunity to examine issues of equivalence and quality in considerable depth. Massey has a long history of providing distance education and has well established structures to support the traditional distance delivery model. In 2007 approximately 16,000 students were enrolled in extramural study at Massey making distance education the largest 'campus' of study by head-count in the University. Students receive study materials in print and the Library provides a free delivery service of printed material, both books and print journal articles, to distance students. The Massey University Distance Library Service (DLS) differs from most equivalent Library services overseas in that it is a largely operational section with responsibility only for the physical delivery of resources to distance students while reference and teaching services are offered by the Information Services and College Liaison sections. The Distance Library Service is essentially a document delivery operation; staff offer personal help via telephone and email for basic borrowing queries but all queries for assistance with searching are forwarded out of the section to those with a specific information and reference function. Some extramural papers include on-campus 'contact courses', which may involve an information literacy session with library staff, although the number of these as a percentage of all contact

courses is very low - in April 2008, for example, there were 94 extramural contact courses of which 5 had IL sessions. This is strikingly low when compared to the number of internally-enrolled students who receive this type of instruction. In a small number of courses there is embedded library content in the student's WebCT (the VLE in use at Massey) consisting of online presentations, tutorials and quizzes.

Massey Library offers a mediated search service to distance students - carrying out a brief search for the student on their stated topic, and providing a short bibliography of potentially useful items from which they choose items (both books and photocopied articles) to have sent to them. The searches are not exhaustive and are designed to provide a starting point for the student and are, where possible, accompanied by instruction in searching and use of library resources. A recent sample showed that 10% of repeat users of this service were postgraduate students, despite the availability of one-to-one training with a subject librarian, with these students sometimes requesting everything on the bibliography and nothing else. To some extent these students receive excellent library service – internal students receive instruction and guidance from library staff but must carry out the actual searching and selection processes themselves according to the level of skill they have developed, while a distance student receiving a bibliography from the library benefits from the skills and experience of library staff. The process itself creates and maintains a dependency and makes no contribution to the development of autonomous information skills.

The University's Student Learning Centre (SLC) holds a series of regional workshops around the country to introduce students to a range of study skills such as academic writing, time management and examination preparation. In 2006 the library was asked to collaborate with the SLC to incorporate an IL component into the workshops, and at many venues this section of the workshop was presented by a librarian who was also able to answer questions. Participant feedback rated the "library part" very highly, and the presence of a librarian was particularly valued. Regional workshops are offered once each semester and library content is now included in each session, with a librarian in attendance whenever possible - when this is not possible the SLC presenter works from slides and notes written by the library to ensure consistency of content.

BARRIERS FACED BY DISTANCE STUDENTS

The lack of ubiquitous broadband speed internet is an ongoing issue for New Zealand, and, in fact, the 2006 New Zealand census showed that 40% of households had no access to the internet at all (Statistics New Zealand, 2006 Table 13). The Household

Survey of Information and Communication Technology Survey from Statistics New Zealand in 2006 shows that in December 2006 only 33.2% of households had broadband internet connections. This is a particular problem in rural areas where 35.1 percent of households identified lack of availability of broadband services as the reason for not having broadband, compared with a mere 3.7 percent in urban areas (Statistics New Zealand, 2007). For libraries this poses a particularly cruel conundrum - while we are able to provide a great deal of information, help and resources online, for a significant percentage of our population these resources are not readily accessible. While it may be argued that many students are able to make use of internet access in the workplace or in public libraries this will certainly not be the case for all of them; in any case these venues do not provide an ideal environment for concentrated study and are subject to time limitations and numerous distractions.

As long as the use of electronic resources remains simply a desirable extra channel for library service then it can be argued that the principle of equivalence has not been fundamentally compromised and that the distance student without broadband access is still able to receive a perfectly adequate service. Just as being able to occasionally visit the library in person may give a certain advantage to some students so those with broadband might enjoy an enriched experience whilst still remaining part of the same community as their less privileged fellow students. The mere fact of access to university education does not of itself guarantee equality of opportunity and obviously a well-resourced full-time student might be expected to enjoy an easier ride than a part-timer with a job and family obligations, although there have been innumerable instances where the latter outperforms the former on the basis of superior maturity or motivation (Thompson, 1998). However we may now be approaching the time when, at least as far as library service goes, direct access to electronic resources provides an experience different as much in kind as in extent; the great majority of significant academic journals are now available electronically and there is a growing expectation that students, even at undergraduate level, will make use of them. This involves use of not only the journals themselves but of the databases that provide topic-based access to specific articles among the millions available – over the past twenty years we have seen a massive improvement in the quantity and quality of resources available for research and study which has in turn raised expectations of student performance.

To effectively exploit the affordances of the digital domain requires a level of technical skill and conceptual understanding that most students do not initially possess. This is true for all students, both on-campus and distance, but the difference lies in the ways that they can acquire these skills. On-campus students access electronic information

resources in their library's "Information Commons" where help and instruction from professional librarians and are readily available at the information/reference desk to assist them in the use of unfamiliar resources, along with access to all the software required to complete their assignments, and help using it from IT specialists (Lippincott, 2006). Compared to this the distance student must deal unaided with unfamiliar resources, and may lack the software and download speed to access the resources or complete their work.

CONCLUSIONS

For the library to be as accessible to distance students as it is to internal students it needs to be where they are and to be there when they need it. Many internal students carry out their independent learning in the Library's Information Commons with a librarian on hand. To provide an equivalent service to the distance student the library needs to be in their VLE as an ongoing presence; an embedded library training session does not in any way replicate the almost instant and ongoing help available to internal students working in the Library. The problem with one-off training sessions is that they are not held at the ideal time for all learners, they are not immediately relevant to all learners, and some students will miss them. A librarian presence can be achieved through allowing library staff "teaching aide access" to the VLE to answer questions on discussion boards, to deliver lectures or presentations or to respond to student questions through live chat. A librarian who is 'present' in the VLE for the entirety of the semester has a far greater chance of meeting the student need at the point at which it arises.

Librarians and teaching staff need to work more closely together to ensure that library training sessions are relevant and to avoid repetition and the 'not another library session, I did this last week' response. Information literacy must be built in to the fabric of the course, assessment must take information literacy skills into consideration, and the library must have resources in sufficient numbers to support distance learners (Backhus & Summey, 2003). To support these goals information literacy needs to be included as an essential graduate attribute at university level and library/faculty cooperation to achieve this goal needs to be built into academic planning.

Libraries also need to look at their discovery systems - the catalogue and article databases. For the distance student who may not have access to readily available help and instruction, our resources need to be as intuitive as possible to use. The 'next generation' of library catalogues mirror much more closely the behaviour of popular

search engines such as Yahoo! and Google (Coyle, 2007). Next generation library catalogues and databases will search multiple sources simultaneously using something much closer to the student's natural language. Some library purists may resist this change but for the inexperienced and isolated undergraduate distance student it may just be enough to get them over the first hurdle, and to give them a positive experience using the Library. As successful e-learning relies on fast internet both librarians and faculty need to lobby to improve broadband access for all New Zealanders. However, if we are to take the notion of equivalence seriously then further consideration needs to be given to the digital deficit under which many distance students struggle, both in available technology and the skills to use the resources available. There is little doubt that distance library services have benefited greatly from the developments in ICT over the past thirty years, but it would be naïve to assume that these benefits will flow through to students without a great deal of enabling and supportive activity on the part of institutions, academics and librarians. If the new environment is to fulfil its potential, issues of access, training, collaboration and support will need careful consideration and ongoing attention. It is now over twenty years since the last significant research was undertaken into library use by Massey distance students (Auger & Tremaine, 1987) in which time the environment has been totally changed by digital innovations. Further research to bring us up to date with the implications of these changes and to guide future development would be very timely indeed.

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