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The provision of distance learner support services at UK Universities: identification of best practice and institutional case study

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Abstract

The research was commissioned and conducted in partnership with the Distance Learning Support Service (DLSS) at Sheffield Hallam University (SHU). It aimed to collect evidence of best practice at UK university libraries, and developing a better understanding of the needs and expectations of distance learners at SHU. The research used a mixed methods research strategy. A review of the literature established key themes and informed the design of the data collection tools. Librarians from two different institutions were interviewed and two separate self-completion questionnaires were distributed, one to librarians at UK Universities and the other to distance learners (DLs) at SHU. Sixty-six librarians responded to the questionnaire (41 completed) and one hundred and twelve DLs at SHU (109 completed, a 14% response rate). Results showed limited use of synchronous virtual reference and user education tools. The biggest challenge faced by librarians is collaborating with course tutors. A marked difference exists between what librarians believe are the most significant challenges faced by DLs, and the DLs themselves. Librarians need to experiment with technological innovations, such as synchronous virtual referencing tools, to increase the effectiveness and efficiency of future service provision.

Introduction

Advances in technology have given university libraries the ability to radically change the way they provide distance learning support services (Robertson, Sayed & Roussel 2008), with massive potential to continue to do so in the future. Some believe technology has "effectively eliminated any distinction between 'around the corner' and 'around the world'" Robertson et al. (2008, p. 267). Others think it does not remove the fact that "distance still rules the experience" (Brahme & Walters, 2010, p. 484).

Distance learners (DLs) can be defined as "those who are separated by distance or by available time from the institution at which they are registered for a course of study" (Heaps, 2001, p. 2). DLs face significant barriers to gaining the same benefits from library services as traditional, on-campus students. Academic libraries have a responsibility to meet the needs of all students and should aim towards an 'equality of provision' (Heaps, 2001; ACRL, 2008). However, learning at a distance results in inequalities that cannot be entirely overcome. Instead these must be compensated for to ensure "effective and appropriate" library provision for distance learners (ACRL, 2008).

Universities are expecting to see a rise in numbers of distance learning students. The current economic downturn has resulted in the newly unemployed looking to gain new skills, often via distance learning, so they can re-enter the workforce (Nickel &

Mulvihill, 2010). Additionally, the impact of increased student tuition fees in the UK could cause a considerable expansion in the number of students studying at a distance, with distance learning moving further into the mainstream provision of universities and their libraries (Heaps, 2001). This comes at a time of reduced library budgets and an increasing demand for an anytime, anywhere library service (Jagger, 2007).

An increase in purely online distance learning courses has led to the adoption of the term 'e-learning' to describe the use of information communication technologies for learning and delivery of instructional materials (Rudestam & Schoenholtz, 2010). The growth of e-learning will present new challenges for libraries in developing, managing and delivering services and resources (Yen, 2009).

Librarians have had to embrace technology to enable and enhance service provision (Jagger, 2007). Adoption of new technology by distance learning support services has altered methods of provision considerably in recent times, enabling libraries to reach out to the distance learner community in increasingly diverse ways (Casey, 2009). Librarians will also need to consider learners and the learning process when adopting new e-learning technologies (Yen, 2009). Innovative use of technology is essential to supporting distance learners at the point of need (Draper & Turnage, 2007). Together with a greater understanding of the concerns, needs and information behaviors of distance learners (Byrne & Bates, 2009), this will enable the provision of a higher level of service.

However the learning process is described, for participants their central concern is gaining "timely access to information …and help in a manner that matches their needs" (Heaps, 2001, p. 4). The main goals for distance learning librarians should be to drastically reduce barriers to accessing resources and services, combined with enabling distance learners to become information literate and independent learners (Jagger, 2007).

Much of the previous research has centered on specific areas of library support, students on particular courses, or has not been carried out in the UK (Bryne & Bates, 2009; Ralph & Stahr, 2010; Parsons, 2010; Thompson, 2010; Batson-George, 2007). Whilst more general surveys in the UK have been carried out, the speed of technological innovation means they quickly become dated (Hitchen, 2005; Lock & Norden, 1998).

The current study, conducted as a research component of a MA in Librarianship, and in partnership with the Distance Learner Support Service (DLSS) at Sheffield Hallam University (SHU), aimed to fill this gap by collecting current evidence of best practice, establishing the needs and expectations of DLs, and comparing the views of academic librarians and DLs. From this investigation recommendations for change can made to enable a higher quality of service provision within DL support services now and in the future. The study was conducted in spring and summer 2011, with data collected in July of that year.

The DLSS has been running at SHU for nearly twenty years. Consequently it was thought the study would provide a great opportunity to review the service offered in the light of a sector comparison and feedback from SHU students.

In initial meetings between the researcher and the Manager of the DLSS at SHU, the background and rationale of the service was discussed. As a victim of its own success, more and more course leaders are requesting DLSS support for their students. The range of resources available to students at their fingertips has developed beyond recognition during the existence of the DLSS. The software now used for resource discovery and retrieval has given opportunities to distance learning students that were unknown when the service began. The DLSS at SHU is constantly seeking new ways to help students access and understand resources and information skills teaching has changed considerably over this time. As a result of these developments it is now able to support far more distance learning students than previously. However, the DLSS realizes that students who never come to the university do have specific needs and is keen to identify what they are and see if they can meet them.

With this in mind four key objectives were set for the study:

i. To identify the methods used by UK university libraries to support distance learners.

ii. To identify challenges faced by librarians within distance learner support services when supporting distance learners, and determine where opportunities for change lie.

iii. To identify the current needs, expectations and perceptions of distance learning students at SHU

iv. To identify similarities and differences between the opinions of distance learners at SHU and librarians within distance learners support services at UK Universities, in terms of perceived needs and challenges faced by distance learners.

In this study the term 'distance learner' is used interchangeably with 'off-campus' and 'non-distance learners' with 'on-campus' students. The next section reviews previous literature on the way in which academic libraries support DLs. Further sections look at the methods used and the key findings, which are subsequently discussed in relation to the academic literature before drawing conclusions from the research together with recommendations for change. This paper is based on an unpublished Masters dissertation (Brooke, 2011), which provides further details of the study including copies of the data collections tools.

Literature Review

Awareness of the need to increase the adoption of distance learning as a method of delivering further and higher education courses has risen in recent years. Rudestam & Schoenhltz-Read (2010) describes how the adoption of "the online environment as the teaching vehicle of the future" requires us to re-access long held views on "pedagogy & how students learn" (Rudestam & Schoenhltz-Read, 2010, Pg. 1). Issues to be

addressed include how best to use innovations in technology to enhance learning. Together with the need to recognize the "nuances & implications" of computer based distance learning to better meet its potential, whilst being aware of the realities faced by all stakeholders (Rudestam & Schoenhltz-Read, 2010). The term 'blended learning' is seen by some in the literature as the most accurate term to describe the current trend of incorporating distance learning technology and the Web into the educational process.

Social interaction during the learning process is a key element in the learning process (Allen,2002). Communication with students is essential, the adoption of social networking tools enables students to become actively involved in the learning community (La Pointe & Linder- Vanberschot, 2012). A key element of distance learning is 'educational freedom' which has been revived through the use of mobile technologies, which empowers students by allowing them to access course material anywhere and at any time (Parson, 2010).

It is important that the underlying principle of distance education is not simply to increase student numbers but to continually improve the services provided to students. The existence of online courses has resulted in the increasing access by non-traditional students with the removal of traditional intuitional boundaries to expertise and knowledge. Institutions will not be able to simply move a traditional classroom approach to learning into an online environment. Instead they will have to be a move towards a 'pull' rather than a 'push' of information to DLs, which is highly individualized and available on demand. There will also be increased democratization

of the creation and dissemination of knowledge with the use of Web 2.0 tools
(Rudestam & Schoenhltz-Read, 2010).

Library Resources

Increased availability of e-resources has not completely removed the need for
physical access via postal loan services (Bower & Mee, 2010). Difficulties with its
provision are mainly due to budgetary concerns, meaning it is often only available to
students living a designated distance from the institution (Long, 2009), resulting in a
lack of provision to overseas students (Hitchen, 2005).

Increasing availability of library resources within virtual learning environments
(VLEs, also known as learning or course management systems) is common practice
across higher education (Keates, 2008), indicating the blurred line between on and
off-campus students (Bower & Mee, 2010). However, intellectual property and
copyright law impacts heavily on the digitization and distribution of material within
VLEs (Alsaffer, 2007). One solution is the expansion of e-book collections with
advantages escalating as greater standardization of formats occurs (Kramer, 2010).

The potential of mobile learning to enable increased flexibility and seamless
incorporation of libraries into DLs' daily lives, has been recognized by libraries as the
next step for distance learning support services. However, there are barriers to be
overcome, including the cost and constant superseding of devices (Parsons, 2010).

User Support

Central to meeting DLs' expectations is providing timely access to library support (Heaps, 2001; Secker, 2008). DLs should be taught to use the library in an independent and effective manner, so complexities are overcome not removed for them (Kramer, 2010). User education should be available at the "point of need" (Gruca, 2010), ensuring it is immediately relevant (Dieterle , Dipert & Jarzemsky , 2007; Lamond & White, 2008), and targeted at DLs using appropriate and diverse communication strategies (Henning, 2010; Hemmig & Montet, 2010).

Librarians should be proactive in maintaining a ubiquitous presence within the virtual classroom using Library 2.0 technologies (Newton, 2007; Primus, 2009). This should include embedding information literacy tutorials (Black & Blankenship, 2010; Hensley & Miller, 2010) and designing web-based learning modules to replace the loss of physical interaction with librarians. (Figa, Bone & MacPherson., 2009; Dieterle, 2007).

It is beneficial to fully integrate information literacy skills as core competencies into the curriculum (Newton, 2007; Robertson et al, 2008; Primus, 2008); and this requires collaboration of librarians with tutors during course development committee meetings to create close links with individual courses (Heap, 2001; Whitehair, 2010; Hensley & Miller, 2010). Librarians could ensure the library is viewed as a valuable resource if invited to engage as mainstream distance learning course development committee members (Robertson et al, 2008; Needham & Whitsed, 2009).

By gathering DLs' opinions and recognizing the diversity of students, instruction can be adapted appropriately (Brahme & Walters, 2010; Hensley & Miller, 2010; Gruca, 2010). Using tailor-made software allows DLs to complete sessions at their own pace in a non-linear manner (Kramer, 2010). Web-based training can provide 24/7 access (Whitehurst & Willis, 2009; Kramer, 2010; Hensley & Miller, 2010).

DLs' inability to interact directly with librarians should be addressed (Whitehair, 2010), and potentially this could be through the use of virtual reference (VR) tools to improve service provision (Rao, 2007). VR services are "initiated electronically, often in real-time, where patrons employ computer …. technology to communicate with reference staff, without being physically present" (Kern, 2009, p. 1). VR services can be provided using either synchronous or asynchronous methods (Rudestam & Schoenholtz, 2010; Robertson et al., 2008).

Asynchronous methods, i.e. communication from one person received at a later time (Kern, 2010), such as tutorials, can be made accessible on library webpages or VLEs (Kramer, 2010; Dieterle et al, 2007; Draper & Turnage, 2007). Tutorials, using for example Adobe Connect or Blackboard Collaborate, can be created so students can learn basic concepts. The advantage of such forms of instruction are that students can access them at any convenient time, enabling them to assimilate advice and try things out in their own time, before returning to ask further questions (Koury, Francis, Gray, Jardine & Guo., 2010; Kramer, 2010).

Synchronous instruction, where communication happens in real-time (Kern, 2010), enables "problem based" or "scaffolded learning" to occur (Newton, 2007). The

ability to mimic face-to-face contact with librarians provides a stronger sense of learning community (Kramer, 2010; Barnhart & Stanfield, 2011). This can take the form of co-browsing, videoconferencing or screen sharing, as well as the use of virtual worlds such as Second Life (Kramer, 2010). Second Life is being used to create virtual reference desks (Ralph & Stahr, 2010), but there are issues surround staffing levels needed to provide a continuous service.

According to Barnhart and Stanfield (2011), the use of live and interactive tools is crucial to successful information literacy training. Librarians should constantly experiment with new technologies, mediated by an awareness of the potential challenges they and DLs face (Whitehurst & Willis, 2009). User education should be highly accessible to fit in with DLs' busy lives and should aim to facilitate life long learning (Gruca, 2010; Cooke, 2010; Barnhart & Stanfield, 2011).

Librarians can offer the same level of service traditionally provided to on-campus students in "untraditional ways" (Cohen & Burkhardt, 2010, p. 267). Relationships can be developed with distance learners by providing a highly personalized service (Cohen & Burkhardt, 2010). A sense of community can be established by increasing communications channels using library related discussion forums, moderated by librarians, to enable peer-to-peer support (Figa et al., 2009). It is recommended that VR tools should be embedded within the virtual classroom in order to fully mitigate against the inequalities experienced by DLs (Figa et al., 2009).

VR methods can also be synchronous or asynchronous (Bower & Mee, 2010), for example email is an asynchronous method (Kern, 2010; Kramer, 2010). Email can

make answering in-depth enquiries difficult, prevent support at the point of need and result in drawn out reference interviews (Meulemans, Carr & Ly, 2010; Figa et al., 2009), causing frustration for DLs and librarians (Glassman, Habousha, Minuti, Scwartz & Sorensen, 2009).

E-mail does have advantages, including the ability to access content at any time. Librarians can make more considered and detailed responses without the pressure of answering multiple questions at once. DLs can digest answers before using the strategies suggested, and asking further questions (Kramer, 2010).

Whilst some believe Instant Messaging (IM) software provides a "more robust way to support distance learners" (Meulemans et al., 2010, p. 4), contradictory evidence exists. Others have experienced low usage levels, perhaps due to technological problems and the perception that IM is not for formal use. Clarification is also needed to determine whether access to and utilization of library assistance is increased (Meulemans et al., 2010).

Screen sharing, co-browsing and web conferencing software enables efficient synchronous help at the point of need, whilst accommodating different learning styles (Glassman et al., 2009; Meulemans et al., 2010). Despite the increased potential of technical problems arising and movement away from the intended discussion topic, this is mitigated by the ability to clarify or refine questions (Glassman et al, 2009; Kramer, 2010).

Increased student numbers in the UK, and the changes to pedagogical practices have

resulted in the need to provide a diverse range of library services that enable the effective use of information resources vital to the support of successful distance learning courses (Johnson et al., 2011).

Despite this, there appears to be no widely known or available set of guidelines within the UK for the provision of Distance Learning Support Services (DLSS). Johnson et al. (2011) does however set out detailed guidelines for electronic reference services for Distance Learners (DLs), which cover areas such as policy statements and planning, e-resources, IL skills training, e-reference services and staff training.

By collecting evidence of best practice and comparing the views of academic librarians and DLs, it was hoped to fill this gap and establish where changes should be made to provide high quality DLSS, now and in the future.

The literature reveals a multitude of ways to use technology to provide library resources, user education and information enquiry services for distance learners, who may feel isolated from peer-to-peer and library support (Kramer, 2010). However there is seemingly no established 'best practice' for providing electronic resources and support for students, and disagreement exists over the most suitable methods to provide virtual reference services to DL students. Essentially librarians are not sure which innovative technologies should be used generally, and more specifically which should be used to provide synchronous user education and virtual reference. This study aims to provide a body of evidence in the rapidly changing area of distance learning support services in the UK to give librarians an insight into which technological solutions to DL support have been used successfully in UK institutions.

Much of the literature reviewed has focused on defining DL support from the point of view of librarians, and it is vital to also consider the views of DL students themselves. Distance learning librarians must ensure that DLs are aware of the services and resources they provide (Hensley & Miller, 2010), complimenting this with an awareness of the expectations and needs of DLs so relevant and targeted services are provided (Hensley & Miller, 2010). An awareness of the diverse nature of the distance learner community is essential (Nickel & Mulvihill, 2010). This will ultimately come from surveying DLs and environmental scanning to identify best practice within UK academic libraries.

This study surveys a small population of DL students at a typical post-1992 University in an attempt to understand the actual needs of DLs. These are compared with what distance learning librarians at UK universities perceive DL needs to be, with the aim of establishing any discrepancies between the views of the two populations.

Methodology

A mixed-methods approach was taken to find "practical solutions to real world problems" (Denscombe, 2007, p. 108). Literature searches were conducted and used to directly inform the content of questions used in all research instruments. The majority of data collected was quantitative, using closed questions within one questionnaire sent to DLs and one to librarians. The qualitative data were collected through interviews with DL support librarians from two different institutions and with several open questions embedded within the two questionnaires.

To establish the opinions of DLs, students currently taking courses at UK universities were selected as the target population. A convenience sample (Bryman, 2008) of DLs at SHU was used, taken from a database managed by the DLSS to avoid data protection issues. Although generalization was not possible it was hoped an informative "snapshot" could be taken to improve future practice (Denscombe, 2007).

The second target population was DL support librarians at UK universities. The study attempted to survey the entire population since the assumption was made that it was sufficiently small enough in size to do so. Questionnaire participants were recruited in two main ways: firstly through direct e-mails to twenty-three librarians identified through analysis of University web sites as having responsibility for distance learner services at nineteen different institutions; and secondly via general advertisement on relevant national listservs. The research was focused on gathering views and opinions of individual librarians and data regarding institutional affiliation was not gathered. However it was possible to confirm from the results that at least three responses were received from librarians at the Open University, which uniquely in the UK offers exclusively distance learning courses. By focusing on the opinions of individual librarians the research was able to collect data from libraries where no dedicated DL support service exists and practice may differ depending on which team supports DLs.

Semi-structured interviews with three DL librarians were conducted. Answers given facilitated the generation of fixed-choice questions (Bryman, 2008) and enabled the piloting of terminology used in the questionnaires. Pilots of both questionnaires were

conducted to ensure that "the research instrument as a whole functions well"
(Bryman, 2008, p. 247). As a result of the pilot questionnaires, several changes were
made to the wording and questions asked.

The Survey Monkey tool was used to create self-completion Internet questionnaires
so the two population groups could be surveyed within the time constraints. The
questions asked in both questionnaires were targeted at meeting each of the research
objectives. Specific questions were asked that would enable a direct comparison
between the views of librarians and DLs to be made. The content of both question and
answer categories were drawn from three main sources: current literature, interview
responses and SHU's DLSS.

SPSS software was used to analyze quantitative data using descriptive statistics to
interpret patterns. Open questions were coded and categorized so that themes within
the qualitative data (Creswell, 2009) could be identified and analyzed (Denscombe,
2007).

The study was approved by the University of Sheffield Information School's
Research Committee and complied with the University's research ethics policy,
ensuring it was conducted in a valid manner and followed the specific code of
conduct.

Results

The results from the two separate questionnaires in the study[1], one distributed to UK university DLSS librarians (sixty-six respondents, forty one complete) and the other to distance learning students at SHU (112 respondents,109 complete), are presented thematically below, to enable comparison of the views of DLs and librarians in key areas highlighted through the literature review. Librarian (L) and distance learner (DL) respondents are identified by alphanumeric codes to facilitate comparisons.

Organization and Management of Distance Learner Support Services

Rather than having a single dedicated team, it is more common (46.3 percent of librarian respondents) for the responsibility of providing distance learning support services to be split between separate teams within the library, depending on what is most relevant to their role, e.g. subject librarians support DLs with subject specific enquiries. 70.7 percent of librarians surveyed stated that their library had dedicated distance learning library webpages, and these most often contain information about the services provided and links to information literacy support. 78 percent of librarian respondents stated that students must be on validated distance-learning courses to be eligible to use distance learner support services.

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[1] Copies of the original questionnaires are available from: http://dagda.shef.ac.uk/dispub/dissertations/2010-11/External/CBrooke_Brooke_100140604.pdf
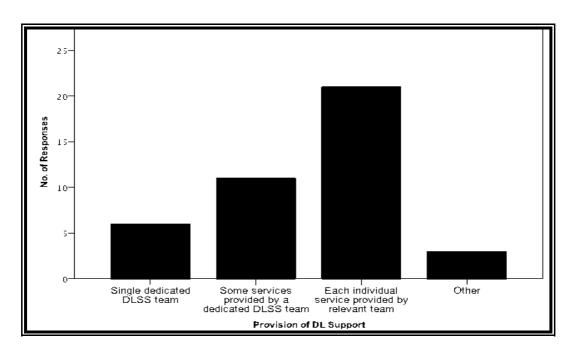
Figure 1 How is the provision of support services to DLs with in the library organised.

The use of a specific patron code within the library management system (LMS) was the most frequently (36.6 percent) used method to identify DLs. 83.3 percent of librarians did not currently allow other library users to access the DLSS for a fee.
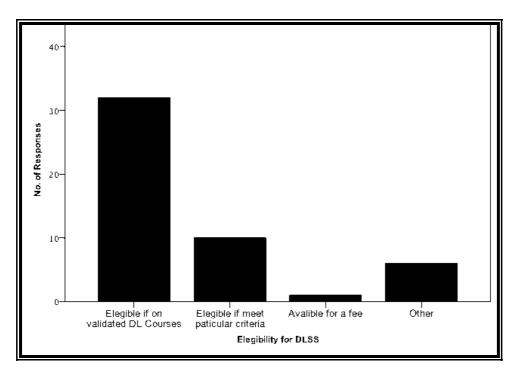

Figure 2 How do you determine which students are eligible for distance learning support services

Despite 95 percent of librarian respondents stating that it is important to collaborate with faculty to support DLs, many librarians do not attend course committees or course planning meetings.

Provision of Library Resources

The results revealed disparities between the services found most valuable by distance learning students and the service most often provided by DL support services (see Figure 3). Whilst 88.5 percent of DLs find receiving scanned resources by e-mail very useful, only 40 percent of the surveyed librarians provided this service to either UK or overseas students. Similarly, the service most often used by DLs is receiving books by post (62 percent of respondents), with 91.4 percent finding this service extremely useful/useful, but 35 percent of librarians surveyed do not provide this service.
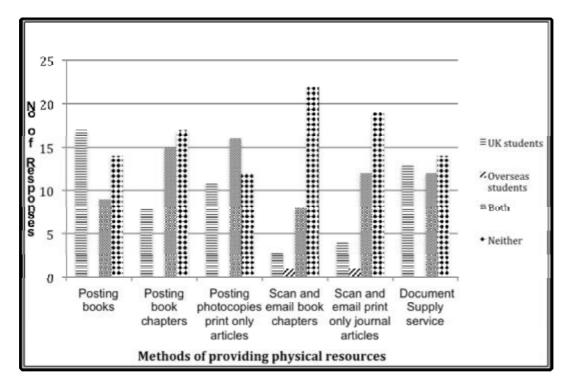

Figure 3 How do you provide your own library's physical resources to distance learners?

Importance was placed on ensuring more mobile-compatible e-resources are made available to ensure libraries meet the predicted increase in demand (L1, L21). DLs stated difficulties accessing resources arose due to "not enough availability of electronic books" (DL9) together with compatibility issues with some e-readers.

When asked why they had not made use of the DLSS, 77.8 percent of students responded that they found information resources elsewhere, and 80 percent stated that they lacked awareness of the service. When using libraries other than at SHU, DLs used work place libraries most frequently (32 percent). The location "closer to work/home" was the main reason for using a library other than at SHU (56 percent).

User Support

The methods most often chosen by librarians to provide user education is through online guides (53 percent) and tutorials (41 percent), with no distinction made between on and off-campus students. DLs most frequently stated that online guides (67 percent) and tutorials (62.5 percent), compared to other methods, are a useful method for learning library related skills. Figure 1 shows the different methods librarians use for providing user education for DLs and other students.
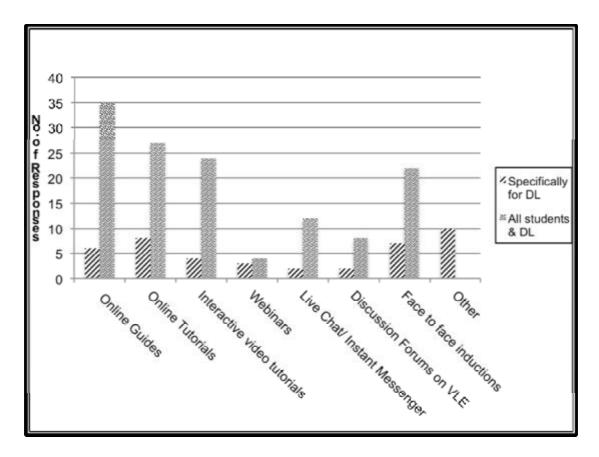
Figure 4. Methods of User Education

Librarians recognized that information literacy training should be "embedded in courses" (L13) to improve accessibility and skill levels.

When providing information enquiry services to DLs the two most frequently used methods were telephone (27.7 percent) and email (29.1 percent). DLs most frequently preferred and were satisfied with using e-mail to contact the library (53.5 percent). Despite the desire for easier ways of contacting the library, the majority of distance learners surveyed did not use the IM service provided at SHU (53 percent). IM is the third most common method of providing an information enquiry service reported by librarians.

Enhanced methods of electronic communication seem to have value for both librarians and DLs. Librarians supporting DLs on graduate taught programs were frequent users of Facebook, Twitter and videoconferencing software, and in libraries where DL support service provision is shared across teams it was common to use IM and discussion forums to support distance learning students. There is demand from DLs at SHU for contact via discussion forums on the VLE to be made available, with 40 percent of DLs stating it would be very useful/useful.

Course tutors were the first port of call for 47.7 percent of distance learners when they needed help with finding information for assignments. Overseas students were more likely to use librarians at local libraries compared to UK students (54.4 percent vs. 45.5 percent). DLs aged thirty-one to forty were most likely to seek help from people other than librarians at SHU, including people on the course (66.7 percent) and work colleagues (60 percent).

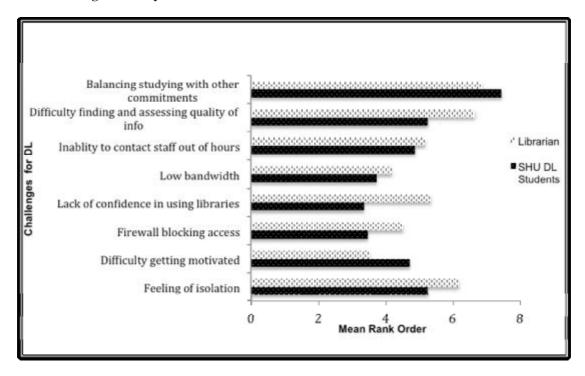**Main challenges faced by librarians and distance learners**

Figure 5. **Librarians' and students' views of challenges for distance learners**

The challenges the librarians face when supporting distance learners fall into three main categories: a lack of resources, diversity of student background, and difficulties establishing collaborative relationships with course tutors. Librarians believed that there was a lack of "engagement" (L9), "information sharing (L11) and "understanding/appreciation" (L40) with course tutors. Poor communication prevented them knowing "exactly what distance learners require" (L1) and "which students are registered as distance learners" (L5).

Similarities and some disparity exists between what librarians think DLs find challenging and the reality reported by DLs. In their respective surveys librarians and DLs were asked to rank the challenges faced by distance learning students. Figure 2 compares the rankings of the two groups. Librarians and students agreed that the most challenging factor affecting DLs in balancing studying with other commitments.

However, librarians ranked students' difficulty with finding and assessing the quality of information (Seven vs. five) and lack of confidence with using libraries (Five vs. three) much higher than the DLs.

In fact a lack of confidence is seen by DLs as the least challenging factor, with 69.4 percent of respondents perceiving themselves to be very confident in using library services. To ensure high levels of confidence exist DLs felt it was important to "make contact .... at the beginning of their program" (DL58) " with clear instructions on how to use it!" (DL18). There is also "no substitute for face-to-face contact" (DL12)

Librarians responded that the challenges faced by DLs might be reduced or changed in the future due to further "improvement [s] in technology" (L5) helping to "bridge the gap" between traditional students and DLs' learning experience (L18), using "more varied methods of communication" (L5) to ensure distance learners have the "same level of access to resources" (L18).

The future of Distance Learning Support Services

Eighty-one percent of librarians thought that the number of DLs would increase due to increased tuition fees. Potentially this could cause increased expectations and changing "demands of distance learners" including wanting "more for their money" and "increased pressure for library staff/support to be accessible 24 hours" (L1), with librarians having to "be more responsive and efficient" (L6), offering a more "bespoke… value added" (L14) service.

The results show that sixty-six DLs learners think it is unlikely that in the future they will have to charge some students to use DL support services. In comparison 60 percent of librarian respondents with only a minority (less than 40 percent) of DLs on undergraduate courses think that charging a fee in the future is very likely/likely.

One librarian stated that in the future DL support services would be "moving further and further away from the sort of very personal service… offer[ing] a 'personalized' service but it would be personalization on more of a mass scale" (L1). The other librarians surveyed contradicted this, most commonly (29 percent) seeing the continued importance of personal interaction with DLs. Instead they believed it was more likely that they would have to become increasingly flexible (45.5 percent).

Opportunities for improvements to DL support services include increased usage of "virtual reference service[s]" (L1). Librarians surveyed most frequently strongly agree/agree that increased integration into the VLE presents a significant opportunity for improving distance learner support services (59 percent). DLs agreed, with 46.1 percent wanting to see the introduction of discussion forums within the VLE. DLs wanted to see a change in the "point of contact" and an "increased presence on each module space on Blackboard" (DL13) ensuring "timeliness of help" (DL99). In addition, DLs wanted to see the introduction of a facility to make "postal service request [within]… the catalogue search function" (DL33).

Discussion

The results revealed a great deal of noteworthy points for discussion. The focus of what follows is on key themes deemed most relevant to DL support service librarians.

Provision of Library Resources

Findings from the current research support the views found in the literature that provision of physical library resources via postal loans is a valued service for all students, but in UK universities is usually only made available to UK students due to issues of cost, despite the continued need of overseas students (Bower & Mee, 2010). Overseas students are frustrated by lack of access to book-based material when this is combined with insufficient access to e-books. As mentioned by Nie, Armellini, Witthaus & Barklamb (2011, p. 35) e-books make studying easier for DLs who "value flexibility and learning on the move" as when downloaded onto e-readers they enable portable access.

Increasing access to e-books is not without difficulties, including issues of copyright mentioned both in the literature (Nie et al., 2011) and by librarians surveyed in this study, preventing access to core texts on e-readers. A solution may be to encourage DLs to access e-material via personal e-readers, smart phones and other mobile reading devices. However, as mentioned by a distance learner at SHU, a barrier can be created due to a lack of compatibility between publisher-provided content and individual devices.

User education

Evidence from the current study shows that online guides and tutorials are the most popular methods of providing user education to DLs. This is at odds with the literature, which centers on synchronous methods of provision such as IM, discussions forums and Second Life (Kramer, 2010; Ralph & Stahr, 2010; Meulemans et al., 2010). Hensley and Miller (2010, p.679) explain the importance of connecting with DLs personally in the "curricular environment" and becoming aware of how DLs perceive their own information literacy skills. Further, it appears from the results that little differentiation occurs between on and off-campus students, with a 'macro approach' taken (Black and Blakenship, 2010) to user education. Greater differentiation of the needs of could increase the adoption of synchronous tools.

Gruca (2010) believes that computer-based tutorials do not reduce library anxiety, and that blended learning is optimal. Despite this, DLs at SHU seem satisfied with them, perhaps because of their accessibility at the point of need, identified by previous research as important (Gruca, 2010; Figa et al., 2009; Bower & Mee, 2010; Kramer, 2010). Therefore the current practice of ensuring guides and tutorials are integrated into the library website should continue.

Information Enquiries

The majority of librarians surveyed use e-mail and telephone to provide virtual information enquiry services rather than synchronous methods of communication. However, the literature places importance on using both asynchronous and synchronous tools (Virkus, 2008; Henning, 2010; Barnhart & Stanfield, 2011). Web conferencing and screen sharing, for example, enables mimicking of face-to-face

instruction through live, interactive demonstrations and two-way communication. The study recognizes that to overcome challenges faced by DLs changes to current practice at UK university libraries are needed.

Feelings of frustration, on the part of both DLs and librarians, with using e-mail to support information enquires are expressed in the literature (Glassman et al., 2009; Figa et al., 2009). However these are not mirrored in the findings of this research. A reason for this could be that e-mail has advantages over real time VR tools, such as accessibility of replies at anytime (Kramer, 2010).

Evidence from previous research and the DLs surveyed shows the majority have not used IM (Cummings et al., 2007; Chapman & Del Bosque, 2004; Wan et al. cited by Meulemans et al., 2010), which is contradicted by Meulemans et al. (2010).

Main challenges faced by librarians and distance learners

<u>Librarians</u> Librarians recognize the importance of collaboration with course tutors, but often found this problematic and difficult to achieve. This prevents a full understanding of the support offered by the library, together with a lack of "engagement" (L9), "information sharing" (L11) and "appreciation" (L40) by course tutors. It is clear that continuing efforts to collaborate with faculty are essential to increasing awareness of the library's value, services and resources for distance learning courses (Virkus, 2008; Whitehair, 2010; Jaggers, 2007).

Every opportunity should be taken to build relationships and work alongside faculty to make links that benefit DLs (Owens & Bozeman, 2009), including involvement in curriculum planning and course meetings. Invaluable outcomes from such collaboration include an awareness the percentage of DLs within the student population, further integration of librarians into course modules and recognition of information literacy as a core competency (Hitchen, 2005; Robertson et al., 2008).

Another challenge faced by the librarians surveyed is meeting the needs of DLs with increasingly diverse backgrounds, previous educational experience and levels of information literacy. This challenge partially results from an upsurge in continued professional development courses and globalization of the market place (Heaps, 2001).

<u>Distance learners</u> The evidence shows there are similarities, and also marked differences, between what DLs actually find most challenging and what the librarians surveyed perceive as DLs' greatest challenge. There is agreement that, on average, balancing studying with other commitments is the biggest challenge for DLs. This results in difficulties for students in fully benefiting from libraries and consequently the provision of convenient support is essential (Whitehair, 2010; Barnhart & Stanfield, 2011). Technology has a crucial role to play in this (Bryne & Bates, 2009) and in enabling the provision of comparable levels of access to resources, services and support as on-campus students.

The literature reflects responses made by librarians in the current study, that one of the greatest challenges DLs face is difficulty finding and assessing information (Cooke, 2010) but this is contradicted by the surveyed DLs who reported high levels

of confidence with using libraries. Needham & Whitsed (2009) highlight this disparity between the perception of DLs and evidence indicating a lack of information literacy skills necessary for academic study.

The future of Distance Learner Support Services

Changes to DL support services requested by DLs clearly indicate that wider availability of support is needed, including multiple contact points and access to support outside library opening times. Importance should be placed on providing proactive, targeted and regular support at the point of need for DLs (Lamound & White, 2008; Byrne & Bates, 2009; Gruca, 2010). Disagreement exists between librarian respondents on whether this should be achieved by entirely or only partially moving away from a very personal service towards "personalization" on a mass scale, similar to the Amazon model (Secker, 2008).

The findings of this research indicated the desire of DLs for more dedicated online "hands on help and guidance" (DL107). Hensley & Miller's (2010) survey of DLs reflects this need for more instruction and communication with designated DL librarians. Librarians recognized the significant opportunity for doing so created by embedding librarians within the VLE. Allowing direct access to library resources from the VLE enables their assimilation into the student's workflow.

The research of Figa et al. (2010, p. 73) and the current study reveal how embedded librarians can facilitate peer-to-peer support by providing a "collaborative forum", significantly enriching students' educational experience and leading to increased library use (Black & Blakenship, 2010; Bower & Mee, 2010).

Henning (2010, p. 442) describes moving from "fourth generation: flexible learning" to "fifth generation: intelligent flexible learning" where "technologies to facilitate interactive responses and immediate automated responses are included". This might be achieved through the adoption of mobile learning technologies, integrating the library into DLs' daily lives (Parsons, 2010). Librarian respondents recognized the significant opportunities arising from the adoption of innovative technology. However, this did not include use of VR services, which were not seen by librarians as a significant way to develop the provision of support. Previous research discusses how technological innovations such as Second Life and videoconferencing can improve the provision of user education (Ralph & Stahr, 2010; Barnhart & Stanfield, 2011).

Putting the results into practice at Sheffield Hallam University

Something that came out very strongly from the research was that distance-learning students needed more support in accessing resources off-campus. It was found that students were not getting enough information about the service or how to use it. The study also indicated that more and better use of new technology would be beneficial to some students.

As well as continuing efforts to improve these areas, many of the points made in the research would also be helped by improved working partnership relationships with the academic staff who design and deliver the courses, usually via the VLE. By working more effectively with academic staff librarians might avoid some of the confusion, misunderstandings and difficulties that students experience.

As a direct result of the findings of the research, the DLSS has improved the information available to distance learning students within their e-learning modules. Information about the DLSS has always been available within the student portal but now it can be specifically included within the courses that are supported. The service has produced a screen-cast detailing the services offered by the DLSS and how to access them. This is available in YouTube, within the student portal, in individual courses, and from a link on the DLSS email signature. Some library staff have also delivered virtual information skills sessions synchronously using Adobe Connect. There is an IM option for students, but this has not been widely used. Many of the services currently offered to distance learning students by the DLSS are being automated and provided to all students by other parts of Learning and Information Services at SHU, for example 24/7 IT Help, a virtual enquiry service, an automated document supply system.

A review of the DLSS has now been incorporated into next year's annual plan for Library and Information Services at SHU and both the student views and the benchmarking research will certainly be a valuable contribution to this. The service manager also hopes that following the review there will still be a way for distance learning students to receive the holistic support and attention they currently value, as well as having access to extended support online or by telephone if needed.

Conclusions

The research gives a wide-ranging overview of how libraries at UK universities are currently supporting DLs. Although a clear picture is established of where initial changes are needed to DL support services, a deeper understanding of individual elements is required to provide a stronger foundation for more radical alterations.

The study indicates that the DLs' needs and expectations are likely to be affected by the rise in tuition fees, however the exact detail of the impact on DL support services is not yet clear. Nevertheless it is increasingly likely that access will have to be widened to include the growing number of non-distance learning students who are studying at a distance. This will cause additional pressure to be put on libraries at a time when extra resources are scarce.

Evidence from the research shows that services will have to become more flexible to accommodate any expansion in the number of DLs. This will include innovative use of technology to ensure more efficient access to user education that also accommodates diverse learning styles. Despite contradictory evidence within the study, personalization of services on a mass scale may also be needed.

The literature shows that greater collaboration with faculty is essential to successfully embed librarians within VLEs. Whilst librarians surveyed recognized its importance they often experience difficulty establishing the desired relationships with faculty. The benefits to distance learners of closer relationships between libraries, course tutors and themselves include an increased awareness of the library's value and the existence of the DL support services.

One way to improve relationships would be to provide convenient and efficient channels of communication. Although the results showed that e-mail and telephone continue to be used by the majority of DLSS librarians the literature indicates the need to experiment with the inclusion of other virtual reference services. It is clear that adoption of these will not be possible for all DL support services and their merits should be evaluated on case-by-case basis. However the clear advantage of the inclusion of both synchronous and asynchronous channels of communication and support means it is important that they are included to some degree.

One of the most surprising aspects revealed by the research was the disparity between how challenging librarians believed some factors were for DLs compared to the views of the DLs themselves. It is important to recognize how this may affect decisions librarians make about changes to support services. In particular a greater understanding is needed of why librarians perceive DLs as less confident, and with poorer information literacy skills, than the students themselves, in order to add value to DL support services.

From the research the following recommendation for changes were made

o   It is essential that efforts be made to ensure closer collaboration with course tutors so that for example librarians can become further embedded within the virtual classroom.

- o Services offered should become increasingly flexible and methods of

  personalizing them on a mass scale, similar to Amazon, should be investigated.

- o Ensure strategies are used by the library service to support DLs balancing

  studying with other commitments.

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