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# Provision of Distance Learner Support Services at U.K. Universities: Identification of Best Practice and Institutional Case Study

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## ABSTRACT

An investigation of library support for distance learners (DLs) 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 U.K. university libraries and develop a better understanding of the needs and expectations of distance learners at SHU. The study 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 to librarians at U.K. universities and DLs at SHU. Sixty-six librarians (forty-one completed in full) and 112 DLs (109 completed in full) responded to the questionnaires distributed. 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 what DLs identify as challenges. 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 toward 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 DLs (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 reenter the workforce (Nickel & Mulvihill, 2010). Additionally, the impact of increased student tuition fees in the United Kingdom 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 (Jaggers, 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-Read, 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 (Jaggers, 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 DL 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 DLs at the point of need (Draper & Turnage, 2007). Together with a greater understanding of the concerns, needs, and information behaviors of DLs (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 DLs to become information literate and independent learners (Jaggers, 2007).

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

The current study, conducted as the 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 be 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 valuable 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 were 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 was previously possible. 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:

- To identify the methods used by UK university libraries to support DLs
- To identify challenges faced by librarians within DL support services when supporting DLs, and determine where opportunities for change lie
- To identify the current needs, expectations, and perceptions of distance learning students at SHU
- To identify similarities and differences between the opinions of DLs at SHU and librarians within DLs support services at U.K. universities, in terms of perceived needs and challenges faced by DLs

In this study, the term “distance learner” is used interchangeably with “off-campus” students, and “non-distance learners” is used 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 article is based on an unpublished master’s dissertation (Brooke, 2011), which provides further details of the study including copies of the data collection 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 and Schoenholtz-Read (2010, p. 1) describe how the adoption of “the online environment as the teaching vehicle of the future” requires us to reaccess long-held views on “pedagogy and how students learn.” Issues to be addressed include how best to use innovations in technology to enhance learning and the need to recognize the “nuances & implications” of computer-based distance learning to better meet its potential, while being aware of the realities faced by all stakeholders (Rudestam & Schoenholtz-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-Vanber-shot, 2012). A key element of distance learning is “educational freedom,” which has been revived through the use of mobile technologies; this empowers students by allowing them to access course material anywhere and at any time (Parsons, 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 nontraditional 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, there will have to be a move toward 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 & Schoenholtz-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 have a heavy impact 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, & Jarzemyk, 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 (Dieterle et al., 2007; Figa, Bone, & MacPherson, 2009).

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

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

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 (Robertson et al., 2008; Rudestam & Schoenholtz, 2010).

Asynchronous methods (i.e., communication from one person received at a later time; Kern, 2009), such as tutorials, can be made accessible on library web pages or VLEs (Dieterle et al, 2007; Draper & Turnage, 2007; Kramer, 2010). 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, 2009), 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 (Barnhart & Stanfield, 2011; Kramer, 2010). This can take the form of cobrowsing, 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 VR desks (Ralph & Stahr, 2010), but there are issues surrounding the 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 (Barnhart & Stanfield, 2011; Cooke, 2010; Gruca, 2010).

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 DLs 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 be embedded within the virtual classroom 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, e-mail is an asynchronous method (Kern, 2009; Kramer, 2010). E-mail can make answering in-depth inquiries difficult, prevent support at the point of need, and result in drawn-out reference interviews (Figa et al., 2009; Meulemans, Carr, & Ly, 2010), causing frustration for DLs and librarians (Glassman, Habousha, Minuti, Schwartz, & 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).

While 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 use of library assistance have increased (Meulemans et al., 2010).

Screen-sharing, cobrowsing, and web-conferencing software enables efficient synchronous help at the point of need while 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 United Kingdom 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, Corazzini, & Shaw, 2011). Despite this, there appears to be no widely known or available set of guidelines within the United Kingdom for the provision of distance learning support services. Johnson et al. (2011) do, however, set out detailed guidelines for electronic reference services for DLs that cover areas such as policy statements and planning, e-resources, interlibrary skills training, e-reference services, and staff training.

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By collecting evidence of best practice and comparing the views of academic librarians and DLs, the present study hoped to fill this gap and establish where changes should be made to provide high-quality distance learning support services, now and in the future.

The literature reveals a multitude of ways to use technology to provide library resources, user education, and information inquiry services for

DLs, 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 VR 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 VR. This study aims to provide a body of evidence in the rapidly changing area of distance learning support services in the United Kingdom to give librarians an insight into which technological solutions to DL support have been used successfully in U.K. institutions.

Much of the literature reviewed has focused on defining DL support from the point of view of librarians, and it is vital also to 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), complementing this with an awareness of the expectations and needs of DLs so that relevant and targeted services are provided (Hensley & Miller, 2010). An awareness of the diverse nature of the DL community is essential (Nickel & Mulvihill, 2010). This will ultimately come from surveying DLs and from environmental scanning to identify best practice within U.K. academic libraries.

## METHODOLOGY

The present study surveys a small population of DL students at a typical U.K. post-1992 university—SHU, a former polytechnic—in an attempt to understand the actual needs of DLs. These are compared with what distance learning librarians at U.K. universities perceive DL needs to be, with the aim of establishing any discrepancies between the views of the two populations.

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 several open questions embedded within the two questionnaires.

To establish the opinions of DLs, students currently taking courses at U.K. 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).

A questionnaire was distributed to distance learning students at SHU; 112 students responded (109 completed the questionnaire in full). The response rate was 14%.

The second target population was DL support librarians at U.K. universities. The study attempted to survey the entire population because the assumption was made that it was sufficiently small enough to do so. Questionnaire participants were recruited in two main ways: through direct e-mails to twenty-three librarians identified through analysis of university web sites as having responsibility for DL services at nineteen different institutions and via general advertisement on relevant national listservs. The research was focused on gathering views and opinions of individual librarians, and data regarding institutional affiliation were 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, unique in the United Kingdom, 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. Sixty-six DLSS librarians responded to the questionnaire (forty-one completed the questionnaire in full). The questionnaire was distributed via a JISC (Joint Information Systems Committee) list comprising librarians interested in, or associated with, supporting DLs. Given that within institutions the questionnaire could have been passed to colleagues, it is not possible to know precisely how many people viewed, or considered completing, the questionnaire. A precise response rate cannot, therefore, be calculated.

Semistructured 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 SurveyMonkey 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 instruments 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. The content of both question and answer categories was drawn from three main sources: current literature, interview responses, and SHU's DLSS. Copies of the two questionnaires can be found in the dissertation cited (Brooke, 2011, pp. 127-144).

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).

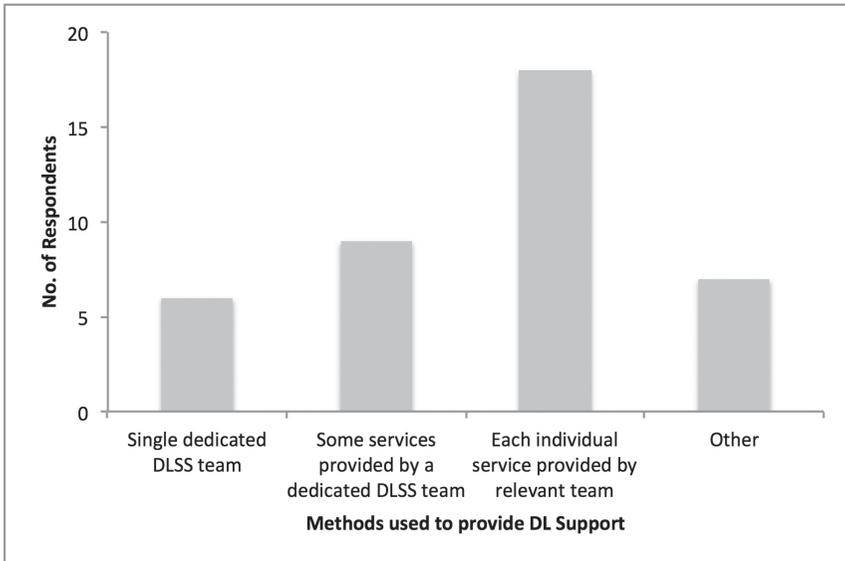


Figure 1. Organization within the library of support services provided to DLs.

The study was approved by the University of Sheffield Information School's Research Ethics 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 are presented thematically, to enable comparison of the views of DLs and librarians in key areas highlighted through the literature review. Librarian (L) and DL respondents are identified by alphanumeric codes to facilitate comparisons.

### *Organization and Management of Distance Learner Support Services*

Figure 1 shows that 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 inquiries). Of the librarians surveyed, 70.7 percent stated that their library had dedicated distance learning library web pages, and these most often contain information about the services provided and links to information literacy support. Of librarian respondents, 78 percent stated that students must

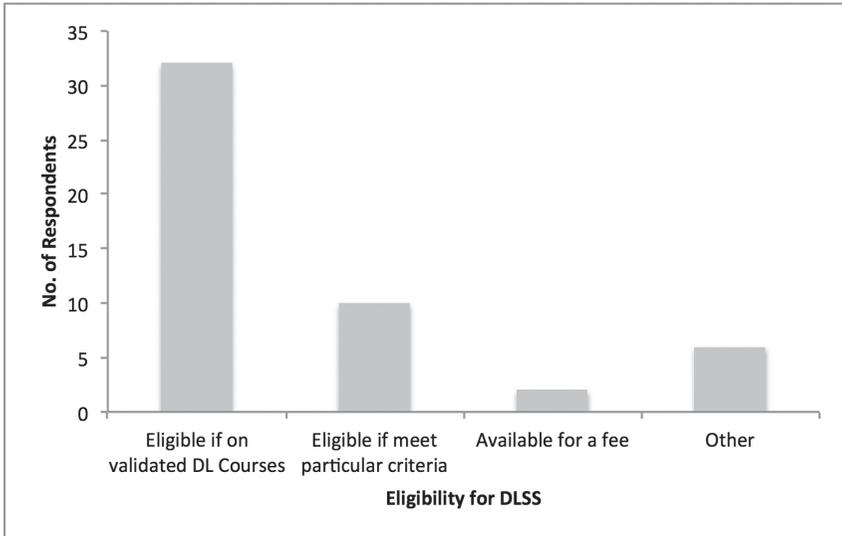


Figure 2. Determination of student eligibility for DL support services.

be enrolled in validated distance learning courses to be eligible to use DL support services.

Figure 2 shows that the use of a specific patron code within the library management system 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.

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 DL students and the service most often provided by DL support services (fig. 3). Although 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 U.K. 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.

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 that difficulties accessing resources arose

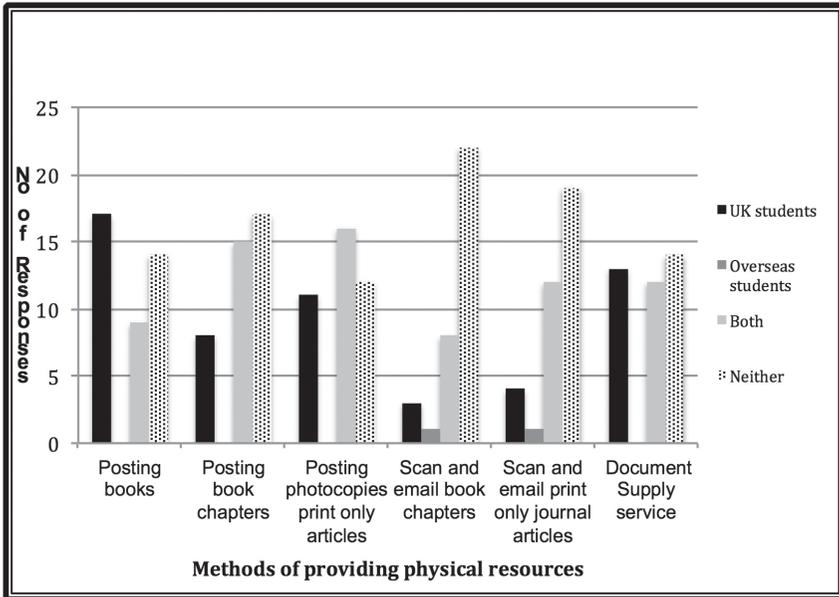


Figure 3. Provision of physical library resources to DLs.

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 workplace 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 with other methods, are a useful method for learning library-related skills. Figure 4 shows the different methods librarians use for providing user education to DLs and other students. Librarians recognized that information literacy training should be “embedded in courses” (L13) to improve accessibility and skill levels.

When providing information-inquiry services to DLs, the two most frequently used methods were telephone (27.7 percent) and e-mail (29.1 per-

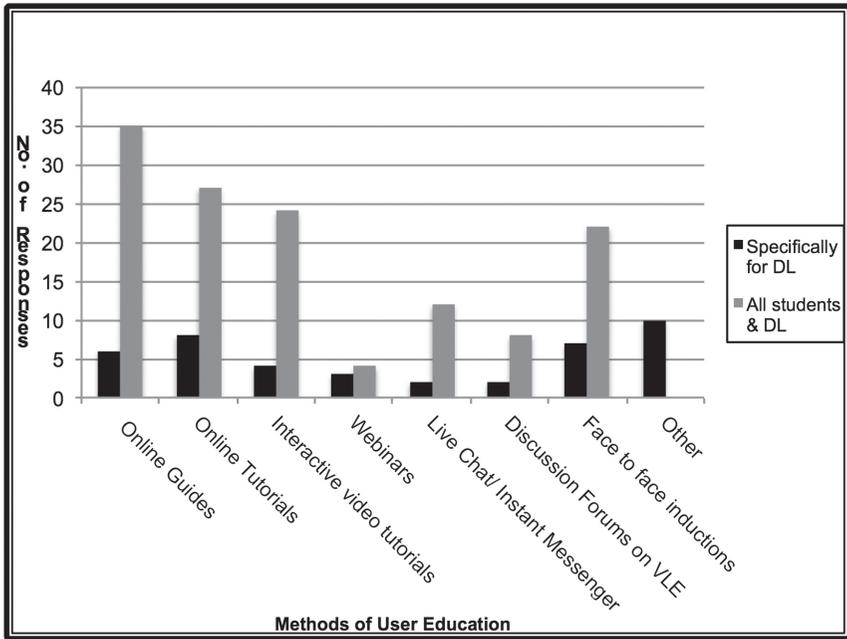


Figure 4. Methods of user education for DLs.

cent). 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 DLs surveyed did not use the IM service provided at SHU (53 percent). IM is the third most common method of providing an information-inquiry service reported by librarians.

Enhanced methods of electronic communication seem to have value for both librarians and DLs. Librarians supporting DLs in 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 DLs when they needed help with finding information for assignments. Overseas students were more likely to use librarians at local libraries compared with U.K. students (54.4 percent versus 45.5 percent). DLs aged thirty-one to forty were most likely to seek help from people other than librarians at SHU, including people in the course (66.7 percent) and work colleagues (60 percent).

*Main Challenges Faced by Librarians and Distance Learners*

The reported challenges that librarians face when supporting DLs 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 from knowing “exactly what distance learners require” (L1) and “which students are registered as distance learners” (L5).

Similarities and some disparity exist 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 5 compares the rankings of the two groups. Librarians and students agreed that the most challenging factor affecting DLs is balancing studying with other commitments. However, librarians ranked students’ difficulty with finding and assessing the quality of information (seven versus five) and lack of confidence with using libraries (five versus three) much higher than did 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)

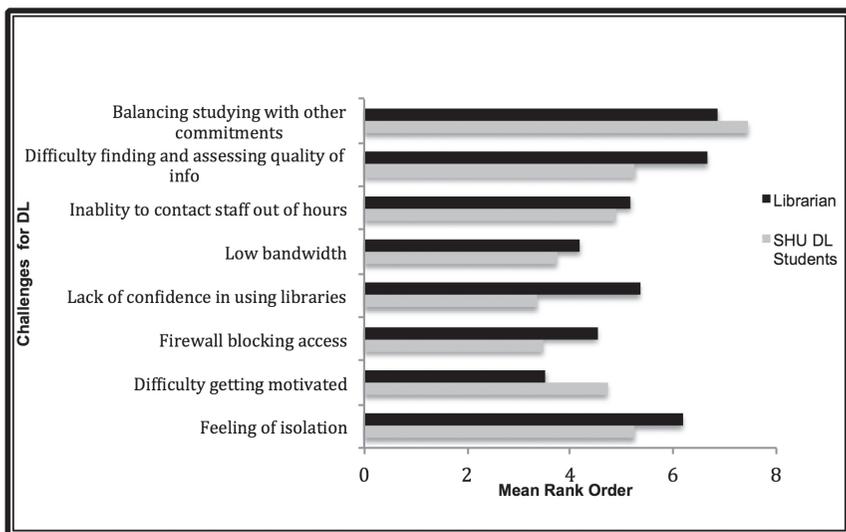


Figure 5. Librarians’ and students’ views of challenges for DLs.

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 DLs 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 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 in 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 use 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 DL 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[s 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 U.K. universities such provision is usually only made available to U.K. 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, and Barklamb (2011, p. 35), e-books make studying easier for DLs who “value flexibility and learning on the move”; 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 DL 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, discussion forums, and Second Life (Kramer, 2010; Meulemans et al., 2010; Ralph & Stahr, 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 & Blakenship, 2010) to user education. Greater differentiation of the needs of DLs 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 (Bower & Mee, 2010; Figa et al., 2009; Gruca, 2010; Kramer, 2010). Therefore, the current practice of ensuring guides and tutorials are integrated into the library web site should continue.

*Information Inquiries*

The majority of librarians surveyed use e-mail and telephone to provide virtual information inquiry services rather than synchronous methods of communication. However, the literature places importance on using both asynchronous and synchronous tools (Barnhart & Stanfield, 2011;

Henning, 2010; Virkus, 2008). Web conferencing and screen sharing, for example, enable 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 U.K. university libraries are needed.

Feelings of frustration, on the part of both DLs and librarians, with using e-mail to support information inquiries are expressed in the literature (Figa et al., 2009; Glassman 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 any-time (Kramer, 2010).

Evidence from previous research and the DLs surveyed shows the majority have not used IM (Chapman & Del Bosque, 2004; Cummings et al., 2007; Wan et al., 2009—all cited in Meulemans et al., 2010), which is contradicted by Meulemans et al. (2010).

#### *Main Challenges Faced by Librarians and Distance Learners*

*Librarians.* 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 (Jaggers, 2007; Virkus, 2008; Whitehair, 2010).

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 of 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 marketplace (Heaps, 2001).

*Distance Learners.* The evidence shows there are similarities, and 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 greatest challenge for DLs. This results in difficulties for students in fully benefiting from libraries, and consequently, the provision of convenient support is essential (Barnhart & Stanfield, 2011; Whitehair, 2010). Technology has a crucial role to play in this (Bryne & Bates, 2009) and in en-

abling 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 and 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 (Byrne & Bates, 2009; Gruca, 2010; Lamond & White, 2008). Disagreement exists between librarian respondents on whether this should be achieved by entirely or only partially moving away from a very personal service toward “personalization” on a mass scale, similar to the Amazon model (Secker, 2008).

The findings of the present research indicated the desire of DLs for more dedicated online “hands on help and guidance” (DL107). Hensley and 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 students’ workflow.

The research of Figa et al. (2010, p. 73) and that of 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 & Blaken-ship, 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 video-conferencing can improve the provision of user education (Barnhart & Stanfield, 2011; Ralph & Stahr, 2010).

*Putting the Results into Practice at Sheffield Hallam University*

An issue that came out very strongly from the research was that DL 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 be helped by improved partnerships between librarians and 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 at SHU 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, such as 24/7 IT Help, a virtual inquiry service that is 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 DL 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 U.K. 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 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. While librarians surveyed recognized its importance, they often experience difficulty establishing the desired relationships with faculty. The benefits to DLs 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 VR services. It is clear that adoption of these will not be possible for all DL support services, and their merits should be evaluated on a 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 with 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 perceive themselves, to add value to DL support services.

From the research, the following recommendation for changes were made:

- 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.
- Services offered should become increasingly flexible, and methods of personalizing them on a mass scale, similar to Amazon, should be investigated.

- Ensure strategies are used by the library service to support DLs balancing studying with other commitments.

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