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## **Can an excellent distance learning library service support student retention and how can we find out?**

Higher Education libraries have traditionally sought to be able to demonstrate the impact their services have on student attainment. This is particularly important in the current economic climate where libraries frequently have to defend their budgets in the face of financial constraints, whilst needing to demonstrate better value for money to students who are now paying more for higher education. A number of studies around the world have been successful in harnessing data around library usage to begin to show strong correlation with student retention and final results. But most of these studies rely on data from book loans and engagement with a physical library, and where students follow a traditional three or four year degree course. This is challenging for a distance education institution, like the UK's Open University (OU), where most students rarely or never visit the physical Open University Library and where study and assessment patterns can differ from those of traditional universities. This paper outlines the efforts of staff at The Open University Library to embed their services and resources into the learning experience of their distance learners, and to aspire to find ways of demonstrating their contribution to student retention and achievement. While there is huge potential in the amount and range of data available, the challenge is to identify an appropriate model that allows The Open University Library to demonstrate how Library Services impacts on student retention, attainment and achievement.

Keywords: Library Services; library activity data; student retention; value & impact; library analytics

### **Impact and library value**

University libraries around the world have for many years been searching for ways to measure and demonstrate the value and impact of their services to students, both in terms of satisfaction and, more importantly, their contribution to academic success. Their hypothesis has always been that library use is an indicator of positive engagement with studies and that exploitation of the rich resources and support provided by the library will enhance the quality of assessed work (Oakleaf, 2010). Furthermore, there is a widely held belief amongst librarians that their interventions to help students develop their information literacy skills will increase their effectiveness as learners and consequently improve their performance.

As challenging economic conditions place pressure on Higher Education library budgets (and in particular in the UK, where the funding for Higher Education has moved on to the shoulders of the student), then it has never been more important to demonstrate the value and impact of the work of the library.

Researchers at the University of Wollongong have studied the relationship between library resource usage and student performance and created a tool called the Library Cube. They found a strong correlation between library resource use and student grades: the average mark for students who never used the resources in 2011 was 55, while the average mark for students who spent up to an hour a year accessing resources was 61 (Cox & Jantti, 2012).

In the UK, the Library Impact Data project (LIDP), part of Jisc's Activity Data Programme, looked at data from student use of library services in a group of academic libraries (LIDP Project blog, 2012). The initial phase of the project aimed to examine whether findings from some earlier work at the

University of Huddersfield, could be substantiated by similar work across a wider number of institutions.

The Huddersfield research suggested a link between student achievement and library use: ‘research showed that for books and e-resource usage there appeared to be a statistical significance across all partner libraries’ (Stone, 2012), suggesting therefore that ‘library usage does impact on student attainment’. The Huddersfield study also identified a link between library usage and student retention.

LIDP statistical analysis demonstrated that ‘at a cross-institutional level, there is a positive relationship between book borrowing and degree result, and electronic resource access and degree result, but not between library entries and degree result. Thus, the more a book or e-resource is utilised, the more likely a student is to have attained a higher level degree result’ (Stone & Ramsden, 2012).

Further detailed work in phase 2 of the LIDP project looked more closely at the correlation and statistical significance. In particular this phase of the project examined demographic data, retention and value add, in terms of whether library usage improved outcomes for students: ‘items borrowed, e-resource hours and PDF downloads were the only dimensions to have a statistically significant relationship with final degree outcome’ (LIDP Project blog, August 13, 2012).

As this work has demonstrated, for all libraries it can be a challenge to demonstrate value and impact, but for a distance learning institution, where students experience the library as a virtual entity it is yet more difficult. The focus of work at Huddersfield and Wollongong and others has been based on the use that the student makes of the physical library, through services such as book loans and PC usage. At a distance learning institution the nature of the connection with the student largely excludes these.

For The (UK) Open University\_ and for many other distance learning providers, there is a further complication in that patterns of study are often a long way away from the conventional three or four year degree: Open University students might be studying for ten years or more. Most impact and value studies have been based around the traditional model and may therefore prove difficult to benchmark against.

### **The Open University experience**

Library staff at The Open University have been working to embed the use of e-resources into the learning experience of every student. This has been an intensive programme of work over a period of more than 10 years. Because, prior to the Internet age, OU students had to be provided with all the content they needed to complete their studies (the ‘course in the box’ model), there was no tradition of library use which would have been the norm in a face-to-face study environment. Once the University was able to provide an online library service, a key challenge was to achieve a paradigm shift in the understanding of open learning, to include the value of library use in supporting the development of the independent learner.

Progress has been slow but steady. A librarian is allocated to every course/module team and their role involves working alongside academic and media development colleagues, identifying suitable library resources to fit the pedagogy, advising how they can be used and driving forward the integration of information literacy (IL).

Since the advent of provision of services to students, Library Services has been active in seeking to embed information literacy skills in the curriculum. This has taken many forms over the last 10-15 years, depending on the shape of the curriculum and university systems, but broadly mirrors the

general trend in IL education across the sector, from user education, to information skills, via information literacy, and now, increasingly, digital literacy. Virtual learning environments (VLE) have made the delivery of IL teaching possible; seamlessly embedded into the student experience so that students acquire relevant skills to support their studies and employability. A framework for digital and information literacy (The Open University, 2012) provides a structured approach to support the embedding of the skills across programmes and modules. Materials draw on either generic approaches, (such as in the 'Being digital: skills for life online' website, The Open University, 2012) or are tailored at faculty level and delivered via the VLE. There is as yet no quantitative or qualitative data which makes the connection between skills development and student outcomes.

It is now fully acknowledged at The Open University that a library service is a critical part of a university education and the work of library staff to provide resources and support is generally valued. Furthermore the recent changes in the UK HE environment to one where 'student pays' has increased the focus on library services. Universities are now required to publish a Key Information Set to inform prospective students and their parents. This includes the response to a question from the annual National Student Survey regarding students' satisfaction with library services, 'The library resources and services are good enough for my needs' (National Student Survey questionnaire, 2012). This fully acknowledges what has been known for some time – i.e. that library services are a factor in university choice.

As funding becomes more constrained there is, rightly, a growing emphasis on 'return on investment' and value for money. Library Services needs to be able to demonstrate to the Faculties that money spent on purchasing e-resources is money well spent because the resources are well-used. This is demonstrated in a number of ways. First of all, figures to show numbers of students on a particular module accessing e-resources can be used to show the level of engagement. It has particularly surprised some Faculty colleagues to discover that many of their undergraduate students are engaging with serious scholarly journals. The measure commonly used to show value for money of e-resources is 'cost per download'. This simply involves dividing the cost of an e-resource over a period by the number of times articles have been downloaded during the same period. These calculations are aided by national work from Jisc to provide a portal for publishers' usage data (Jisc, JUSP).

Usage data forms an important part in telling the story of the impact of e-resources have on the student experience and this is used hand in hand with other activities such as national surveys, institutional surveys, analytics, market research, helpdesk analysis and student feedback. This information not only helps us understand where and how Library resources are having impact but it also has a role to play in driving forward service developments. Our most recent biennial student survey revealed that 86% of those undergraduates surveyed felt that having access to online resources enhanced their studies and that 92% of respondents would recommend using e-resources to other students. What is also obvious from our research is that students are accessing and using academic e-resources even when not directly instructed to do so and we know that for many students access to these types of resources is key to their studies. This tells us that that these resources are not only important to students but they are impacting on the quality of their learning experience.

Library staff believe that use of e-resources and the development of digital and information literacy skills increase students chances of academic success and employability. There is anecdotal evidence to support this. As illustrated above, activity data is being used operationally to show the use of individual resources, and has been used to demonstrate the potential of creating resource recommendations. But it has not yet been possible to correlate the large pools of library activity data

associated with e-resource use with student achievement and retention at the OU. This is why the studies being reported via the Jisc programme and the advent of the new Jisc Library Analytics and Metrics project (LAMP, 2013) are of such potential interest, and point the way to a programme of activity that could be carried out at the OU.

## **How could we construct a study?**

For The Open University, what kind of evidence would be needed to demonstrate the link between library usage and retention - and what would a study look like? Consideration of this question has suggested that much of the data required is available – what is needed is the opportunity and resource to bring it together.

### *What data would be required? What do we need to know?*

It would be important to be able to show what is being provided to students under the umbrella of library services, how they are engaging with it and whether it is possible to identify a link to retention and attainment.

There is now a range of data available which could be brought together. These data might include the following:

- Demographic data
- Course calendar information (re the timing of library links & assignments)
- VLE activity data (including forums)
- Lists of library resources that are part of required reading
- Library resources usage data
- Library helpdesk enquiries
- Library website usage and analytics data
- Tutor Marked Assessment & Electronic Marked Assessment scores
- User survey results
- Student retention and attainment data

## **The Proposal**

Because of the challenges of working with data at scale, we are proposing to carry out a small, intensive illuminative study of one presentation of a single module, collecting and analysing data from start to finish, to build up a detailed picture of the role of library activity in the students' overall experience and outcomes. It is anticipated that this would be carried out with colleagues in our Institute of Educational Technology who are experts in 'data analysis' and learning analytics.

The methodology will be a longitudinal study, modelling the collection and analysis of data from multiple sources (as listed above) against the study calendar. A post-module survey will be carried out in order to compare the students' perceptions of their use of library resources and services with the objective data.

Evidence from the study will inform the future development of library services to add maximum value to our students. We will also develop a report format which can be delivered to students to influence their future engagement with library services, by demonstrating its value. It will also be an initial step

on the road to being able to demonstrate the value of library services and their positive impact on student attainment and retention, within the context of a distance learning institution.

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