

Maximizing use of library resources at the University of Huddersfield

Based on a breakout session held at the 33rd UKSG Conference, Edinburgh, April 2010

Analysis of library usage data has become increasingly important in recent years, but how do we count and account for non-users? This paper will look at how, through the analysis of e-resource usage, book loans and gate entry figures, the University of Huddersfield has identified groups exhibiting low/non-usage behaviour. The results have then been linked to student attainment.



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Context and project drivers

The project described in this session was undertaken in two phases. Phase One focused on low/non-use of library resources, and Phase Two looked at the correlation between library use and final degree results.

Phase One was inspired by a number of factors.

- The quality standard Customer Service Excellence¹ to which the Library subscribes requires analysis of distinct customer groups. The Library had very little data on low/non-users, and so identified this group as requiring investigation.
- Data collected as part of an Equality Impact Assessment exercise brought to our attention the potential of matching data from different systems, in particular the student record system and the library management system.
- Increasing pressure on the information resources budget required a value-for-money approach.
- It had become clear that significant numbers of students were missing out on the wealth of information sources available.

In Phase Two the focus was to provide evidence for the impact of library resources on learning

outcomes, and to support elements of the new University Teaching and Learning Strategy².

Literature review

A scan of recently published material in the areas concerning low or non-use of library materials revealed very little relating to academic libraries in the UK. The most relevant study had a particular focus on part-time students and distance learners, and is recorded by Lisa Toner³ of St Martin's College, now part of the University of Cumbria.

Methodology

Originally, the group set out to look at three main indicators in order to determine the reasons behind low/non-usage of library resources. These indicators were:

- access to e-resources (using logins to *MetaLib* as a measure)
- book loans (using statistics from the *Horizon* Library Management System)

- access to the library (using gate entry statistics from *Sentry*).

All three sets of data are able to show anonymized individual usage data for over 700 courses over four years, 2005/6–2008/9. Figure 1(a–c) shows the total level of usage in the School of Human and Health Sciences broken down by year. Even at the aggregate level there appears to be a significant amount of low/non-use. This is a sobering picture, as despite the steady increase in e-resource usage in most areas, there is clearly potential for much

greater usage. This data became the basis for further investigation.

Before moving on to look at individual courses, we sought permission to match data with the student record system (SITS:Vision, known locally as ASIS) through liaison with Student Records and Computing Services, thereby linking usage to attainment. Because the data included two cohorts of students on three-year courses, it meant that we could extract data for years one, two and three for two complete years. Figure 2 shows average total library usage vs. final degree grade (for all 2007/8

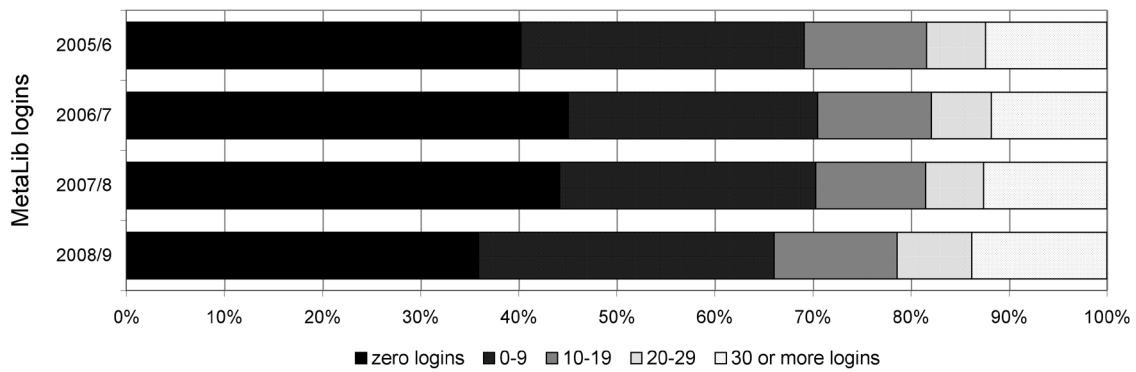


Figure 1a. School of Human and Health Sciences – MetaLib (visits to Library)

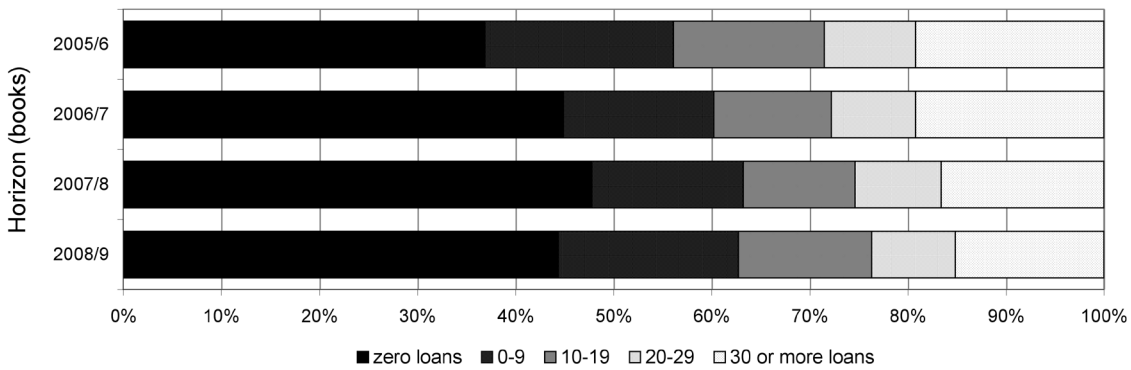


Figure 1b. School of Human and Health Sciences – Horizon (visits to Library)

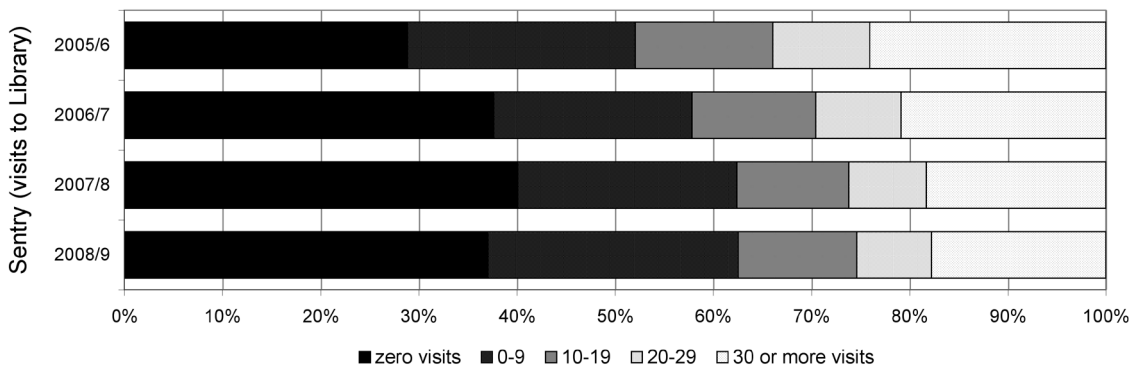


Figure 1c. School of Human and Health Sciences – Sentry (visits to Library)

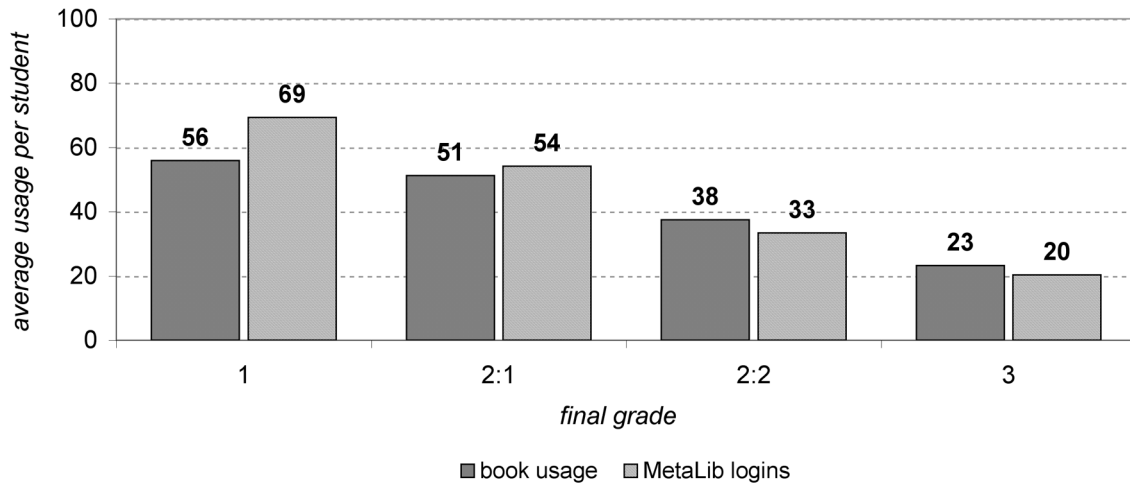


Figure 2. Average total library usage v final degree grade (all 2007/8 & 2008/9 graduates)

and 2008/9 graduates). There appears to be a strong correlation between library usage and grade; this also appears for the previous two years of graduates, although MetaLib usage figures are incomplete for those cohorts. This correlation also appears when data are drilled down to individual Academic Schools and individual courses.

Interestingly, these figures show that students who gained a First have a higher print to electronic usage ratio (1.18:1) compared to those who gained a Third (0.9:1), which implies that although e-usage is on the rise, printed material is still important for achieving a higher class.

On further inspection, there was a correlation between award, e.g. BA, BSc, across the whole University and by School (see examples in Figure 3). Although usage varies from School to School, there

is still a strong overall correlation between grade and use of library materials. It should be noted that electronic usage is recorded regardless of location of study.

However, the number of visits to the Library is a more difficult figure to interpret, as we do not record what students do during each visit. Some individual courses exhibit a strong correlation between visits and final grade, while others do not. There are a number of different variables that may explain this, such as the ongoing library refurbishment throughout the time this data was collected, the different requirements of each course, e.g. for group work and individual study, and the fact that the entry system for the library also serves as the entrance to student support services⁴.

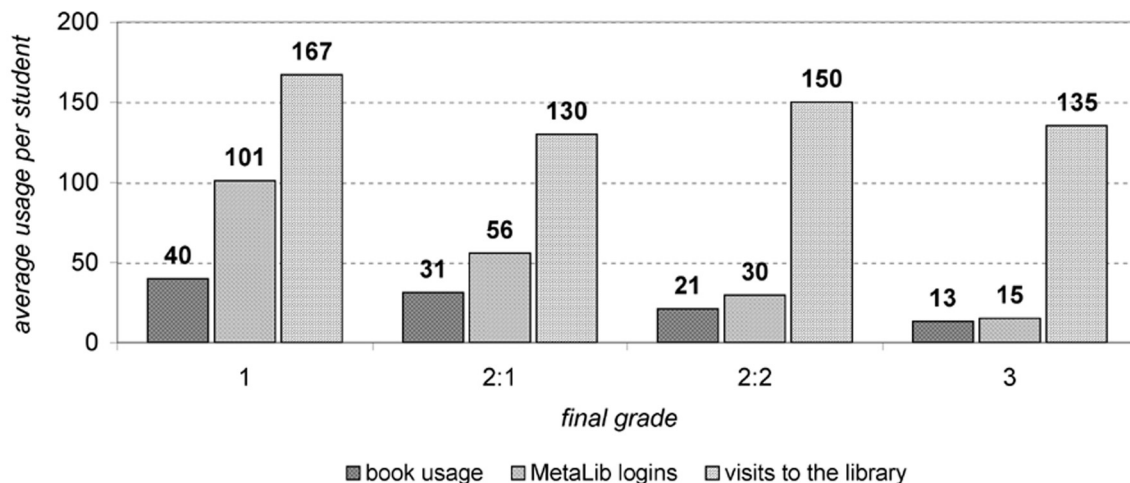


Figure 3a. Huddersfield University Business School

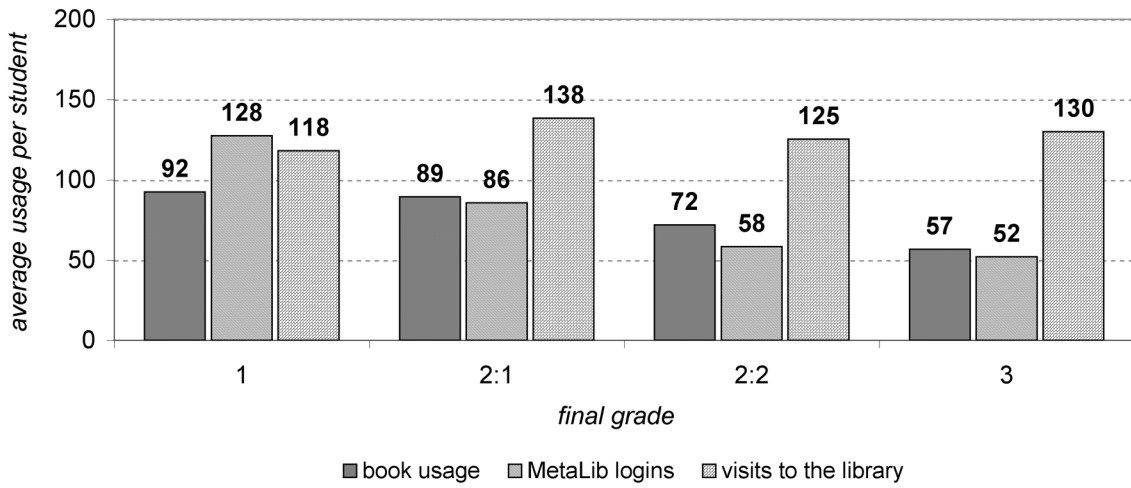


Figure 3b. School of Human and Health Sciences

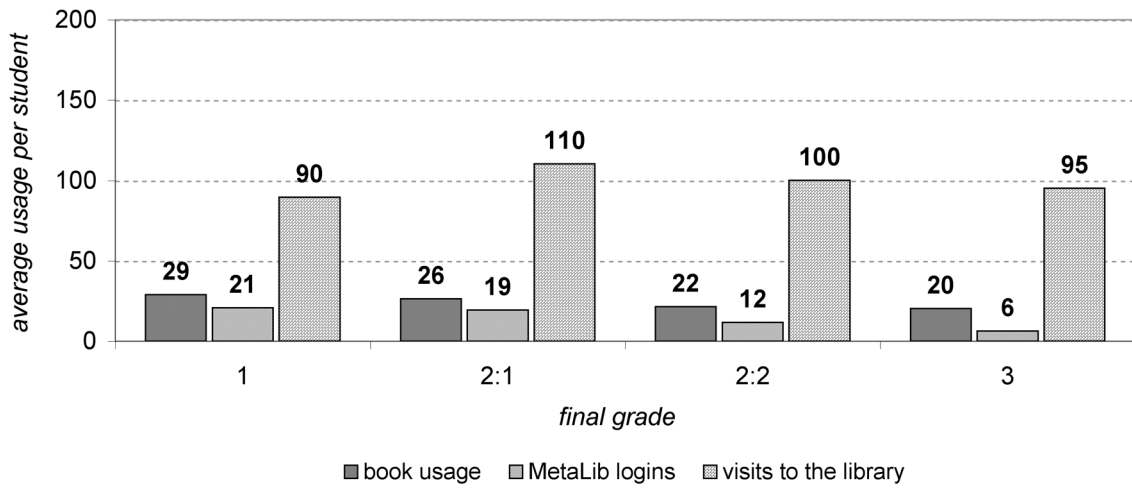


Figure 3c. School of Art, Design and Architecture

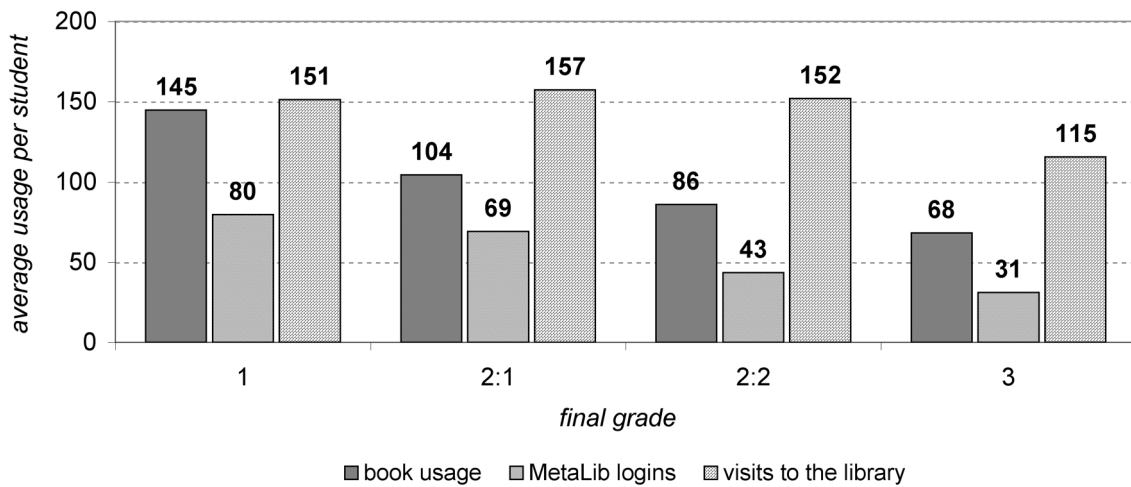


Figure 3d. School of Music, Humanities and Media

In order to distil the 700 courses into a more manageable subset the following criteria were used:

- focus on medium to large courses of 35 or more students
- focus on undergraduate courses
- focus on courses delivered at Huddersfield campus, excluding those delivered at Oldham and Barnsley because data sets were incomplete
- exclude collaborative, part-time, distance-learning and franchise courses as there were too many unknowns and external factors.

In addition it was decided to remove the School of Education and Professional Development from the study as their courses exhibited too many of the criteria above.

The subject teams were asked to select hotspots of apparent low/non-use for further in-depth analysis by examining the usage data over a four-year period where low/non-use was defined as:

- MetaLib statistics – low use is fewer than five logins
- Horizon statistics – low use is fewer than five issues
- Sentry statistics – low use is fewer than five visits.

The short lists for each School were narrowed down by the subject teams to identify courses of potential interest, for example those demonstrating unusual use patterns or low/non-use that could not be readily explained through professional subject team knowledge. Table 1 shows the 15 courses identified.

Results

Analysis of the results for the 15 short-listed courses revealed a correlation between e-resource use, book borrowing and student attainment. This appears to be the case across all disciplines, although it should be noted that statistical significance tests have not yet been applied. These tests will be undertaken in the next phase of the project.

Figure 4 shows the results for BA English Studies. This is one of the low/non-use courses and the data show a clear correlation between students who used the library and final degree. However, it is important to note the scatter graph in Figure 4 which shows the variation between individual performances. Looking at the correlation in the bar chart it would be expected that Firsts would be found towards the top right and other degrees would tend towards the bottom left. However, there are two Firsts in the bottom left of the graph, which show that those students did not borrow widely from the library's collection or use e-resources. It is this sort of anomaly at the individual course level that may lead to a greater understanding of low/non-usage. What were the reasons for those two students gaining a higher class degree in relation to other students exhibiting a similar level of use?

Figure 5 shows the results for BSc Physiotherapy. In this case it seems that although the bar chart shows a correlation between usage and attainment for the whole of the cohort, further inspection shows that the scatter graph is skewed towards e-resources use rather than book loans. Why is this? Is it because the Library has not purchased the appropriate resources?

Selected courses by School	
School of Applied Sciences	School of Human and Health Sciences
Biology	Applied Criminology
Hospitality	Nursing Studies
	Physiotherapy
School of Art, Design and Architecture	School of Music, Humanities and Media
Interior Design	English Studies
Textile Crafts	Media
Textile Design	
School of Computing and Engineering	The Business School
Computing	Business Studies
Mechanical Engineering	Law
Music Technology	

Table 1. Selected courses by School

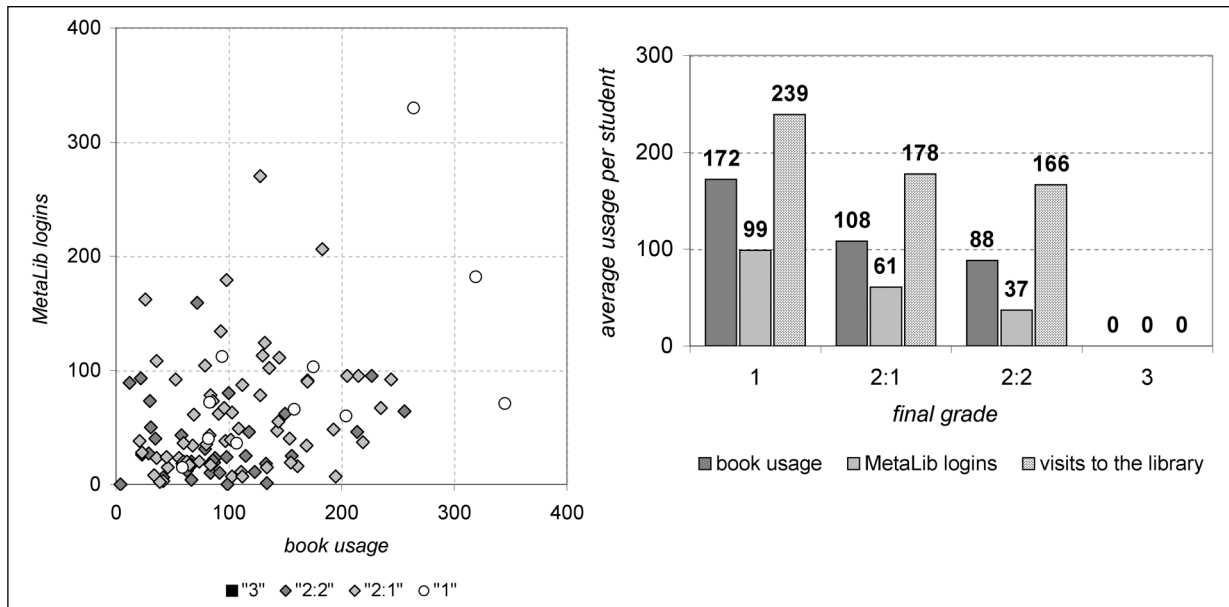


Figure 4. BA English Studies

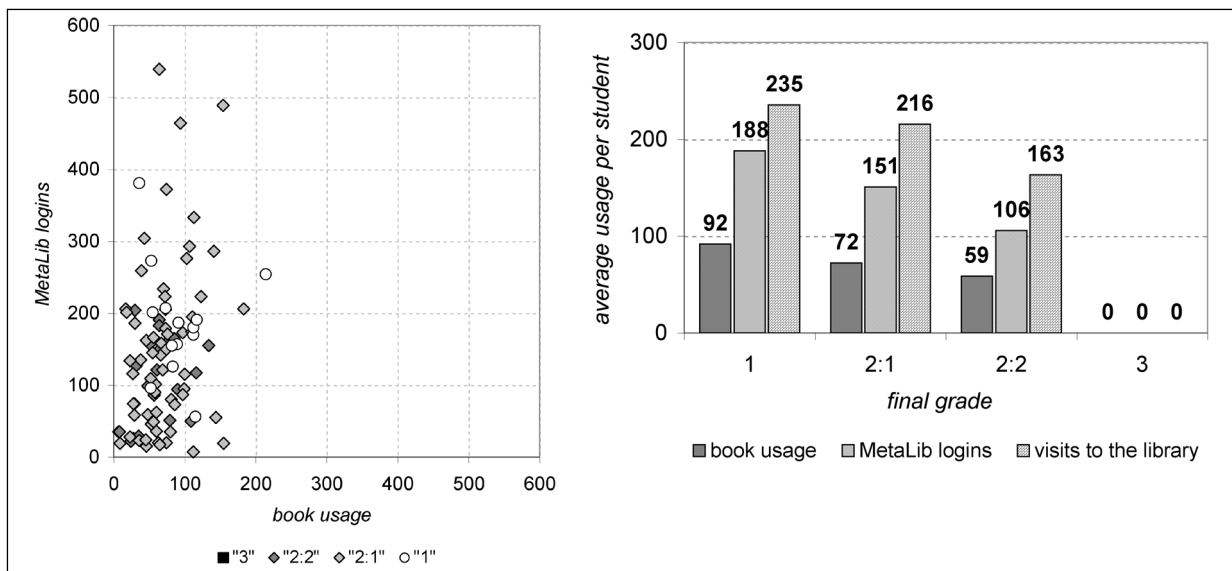


Figure 5. BSc Physiotherapy

BA Business Studies, Figure 6, shows that apparently there is no correlation between library visits and student attainment. This may be due to the factors mentioned above, in particular the ongoing refurbishment work, and the requirement for group work which may or may not incorporate a requirement to use library resources.

There are clearly large differences in user behaviour both at individual course level and across discipline.

Finally, it is interesting to look at our perceptions of e-resource use. Resources such as Emerald

and Business Source Premier are viewed as successful subscriptions in that cost per usage is low and overall usage when benchmarked against other resources is high. They are both used widely within the Business School. However, when set against the comparatively low/non-use of resources within all Business School courses, usage could and indeed should be significantly higher. Further analysis of usage vs. impact is needed and this may mean we have to re-evaluate our criteria for renewal and cancellation of resources in the future.

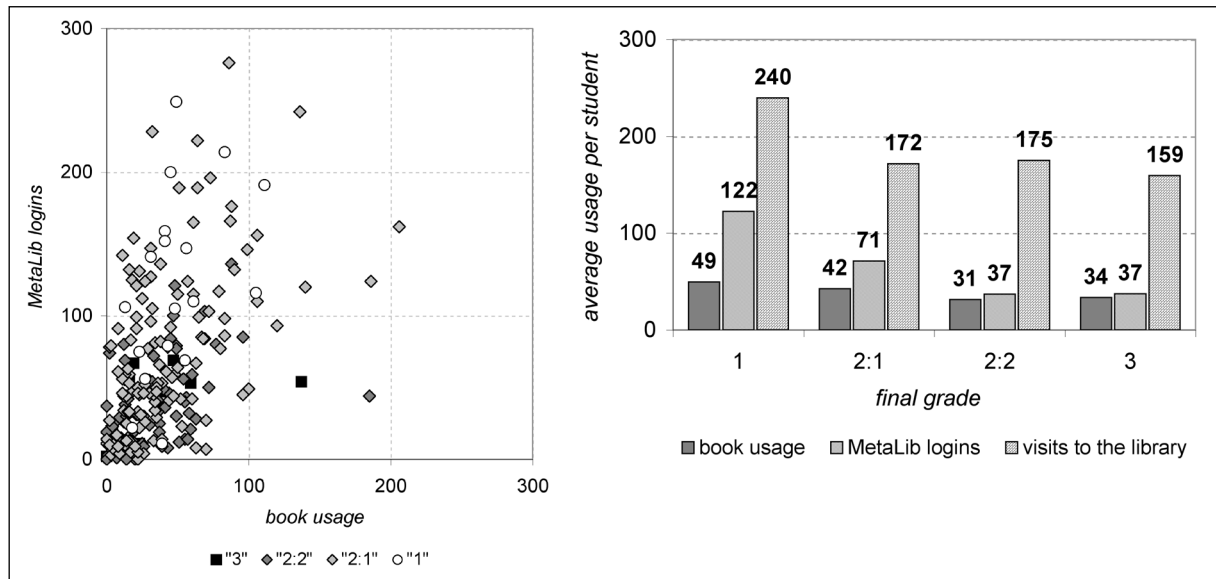


Figure 6. BA Business Studies

Issues raised and lessons learned

The preceding section outlines some of the issues in relation to use of e-resources. The following comments are of a more general nature:

- We must acknowledge subject differences. There are often pedagogic reasons for low usage of library resources. Practice-based subjects in art and design may have less of a requirement to borrow books or access e-resources than humanities-based subjects, for example.
- This is not a strict cause-and-effect relationship and libraries must be careful not to overstate the correlative case. There will be many variables which impact on a student’s final degree result, and use of library resources will be just one.
- Political sensitivity is important. Any data which shows apparent underperformance by students may reflect adversely on the tutor. The data should be presented diplomatically and with sensitivity.
- Support from senior management is critical. At Huddersfield this support has been forthcoming, and as a result of discussion in a University committee, the Library now has a mandate to explore the findings in more detail with heads of department and course tutors. A progress report to the same committee has been requested within six months.
- Be honest about the findings! The correlation you hope for may not be borne out by the initial evidence, but it is important to try and

understand the data. This may require considerable further investigation.

The next steps: Action Plan

Academic librarians will work closely with tutors of the pre-identified courses to explore the reasons for unexpectedly low use of library resources. This process will include:

- course profiling, to determine the particular attributes of each course and its students, which may affect library use. For example: Do they rely on a few key texts? Are they expected to purchase most of their books? How much study time do they have on campus?
- targeted promotion of resources, at the point of need. Libraries are perhaps guilty of being overly reliant on their web pages and information guides, and of expecting students to know how to select the appropriate information at the appropriate time in their courses. Many students need more guidance than this
- raising tutor awareness of resources, particularly e-resources and current awareness services
- review of the induction process. Ideally the initial induction should be kept to a minimum, and replaced with in-depth information skills training at the appropriate stage in the course
- Targeted information resources allocation, to ensure value for money. Each Academic Librarian will agree an ‘Annual Resource Statement’ with their School, which lists, for

example, proportion of expenditure on books: journals, journal titles for cancellation, new titles for purchase. This agreement is to be signed off by a senior member of the School

- Targeting of staffing resources, to ensure that support for students is available at key times of the year. At Huddersfield a pool of students is being created to provide routine assistance for students, thereby releasing library staff time for more in-depth support.

Conclusion

The project described in this article is work in progress, and there are many strands which need further exploration. Benchmarking the results with other academic institutions is an important next step, to strengthen the validity of the data. We look forward to working with partners to progress this research.

Acknowledgements

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3. Toner, L, Non-use of Library services in a UK academic library, *Evidence Based Library and Information Practice*, 2008, 3(2) 18–29
4. A project entitled 'Evaluation of the Impact of Learning Spaces on Student Learning Behaviours and on Learner Support' ran in parallel with the low/non-use project. Its aim was to investigate how students react to learning spaces, and what the resulting learning behaviour means for support staff. Based in the University Library, a methodology was designed, piloted and evaluated, with the aim of rolling it out to other types of learning space and to inform future learning space planning. The findings will be published shortly.

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