

**A SAGE
Report**

How are Students and Lecturers Using Educational Resources Today?

Final Report

May 2019

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EXECUTIVE SUMMARY

Introduction

This report is the result of an ambitious year-long study, conducted in 2018, that seeks to provide an up-to-date survey of the UK undergraduate higher education (HE) pedagogical environment. One key objective of the study was to assess the impact of large-scale external factors on the acquisition and deployment of pedagogical resources. A second key objective was therefore to define the pedagogies favoured in present-day UK tertiary education and to assess what types of resource serve them best; to examine how these should be accessed and delivered; and to try to establish the most viable ways of paying for them. The third key objective was to understand how publishers can better engage with the academic community to promote optimum learning outcomes, by developing resources that best support academic and student needs.

Methodology

The primary research took several forms. Three SurveyMonkey surveys were circulated to UK academics, students and academic librarians respectively. 79 UK librarians, 399 UK academics and 108 UK students responded to these surveys. Five UK universities were asked to participate in in-depth studies. They were the University of Greenwich and the University of Huddersfield (both post-1992 universities); the University of Nottingham and the University of Edinburgh (both Russell Group universities); and the University of Surrey (a 1960s university). There was especial focus on the following five disciplines: Business and Management; Education; Nursing; Psychology; and Sociology. Academics and librarians representing these subjects at the five in-depth universities were asked to participate in semi-structured telephone interviews. Some further interviews with academics at other Russell Group universities also took place. Undergraduate students in their second year or above, representative of each of the five disciplines where possible, were asked to take part in focus group discussions. Six focus group meetings were held altogether. All participants at the five 'in-depth' universities have been guaranteed anonymity.

Extensive secondary (desk-based) research was also carried out. Contemporary professional bodies and websites were consulted. A wide range of publications, including many learned journal articles on pedagogical change, was also consulted.

Key findings and recommendations

- A. **Changing pedagogy.** Of the respondents to the SurveyMonkey surveys, 82% of the academics, 62% of the librarians and 45% of the students said that the approach to pedagogy had changed at their respective institutions. Among all stakeholder groups, the use of flipped classroom, a new focus on technology-enhanced learning and the trend for students to be encouraged to publish ('students as researchers') were the most-mentioned catalysts for change, together with 'research-led' teaching.
- B. **Tradition versus innovation.** Considerable efforts are being made by academics and librarians to promote a wide range of resources. However, textbooks (both in print and electronic format) and journals were the most-listed resources across all three groups. Librarians rated the use of books – both in print and electronic – higher than the other stakeholder groups (78% and 85%, compared to 39% and 58% of the academics and

41% and 59.1% of the students). Interactive websites and videos were mentioned by the majority of respondents, though with slightly lower percentages from students (the results were 51% and 71.4% respectively for librarians, 56% and 68% respectively for academics and 39% and 51% respectively for students). Approximately 30% of the librarians and 30% of the academics said that undergraduates were being encouraged to use simulations and games, while only 15% of the students agreed. The nature of the discipline studied was a factor: simulations are very important in Nursing, for example, and less so in more 'purist' academic subjects. The study found that there is often a discrepancy between the resources students are encouraged to use and those they actually use.

- C. **'Free' resources.** The pool of resources in use has become very diverse, meaning that the 'market' is fragmented. Some resources are 'free' in the sense that they don't require any financial outlay from the student, the library or the institution. Use of such resources may be an accelerating trend and is worth watching.
- D. **Format of resources.** Academics may recommend print books over e-books or vice-versa, or be format agnostic. As many libraries have an e-first policy, an e-book is more likely to be available to the student. However, even the librarians at universities that have been strong promoters of electronic resources acknowledge that many students prefer print. The key stakeholder groups agreed that not all the books that students want are available in e-format (or it may be that the e-book is available, but the Library can't afford it). This is particularly true of some of the better-known textbooks and is another reason why students may now be directed to use the Library's print holdings, a reverse trend. Both students and librarians exercise more power in the choice of resources than in the past.
- E. **Reading list software links.** If the University employs reading list software, the digital items included in the reading list link directly to the Library's holdings and other sources of information – e.g., websites that students are recommended to consult, etc. – and sometimes (depending on the type of reading list software) it also links to the university's virtual learning environment (VLE).
- F. **Categorisation of reading list materials.** Nearly all respondents (over 90% in each group) said reading lists indicate core materials or core reading matter; most librarians and academics (between 73% and 83%) said they indicate secondary texts and supplementary reading matter. Just over half (54%) of the students said their reading lists indicate secondary texts and fewer than half (44%) said that their reading lists contained supplementary reading matter. The students said they needed more help in understanding which resources were most important.
- G. **Reading list content.** 60% of the SurveyMonkey students and 61% of the SurveyMonkey academics said reading lists mainly contained a mixture of journal articles followed in importance by books, most adding that a wide range of resources was also represented, including online tests, supplementary online materials, website URLs, etc. For the librarians, the order of popularity was reversed: 62% said that reading lists contained a wide range of resources, mainly consisting of books followed in importance by journal articles. Most reading lists were said to include at least one book that was classified as a core resource; often, several books were listed as core. The importance of the currency of resource materials was emphasised, especially by

the students – books do not score as well as journal articles in this respect, but it was agreed they are often essential for the key ‘underpinning information’ for a given topic.

- H. **VLEs.** Students’ opinions on the university’s VLE varied but were generally unfavourable. Students said lecturers were erratic in posting materials; that they were encouraged to find their own material (some said they were only given the ‘basics’ in reading lists); that they prefer to take notes in lectures because this aids their understanding better than hand-outs; and that such material is ‘only as good as the lecturer’.
- I. **Librarian influence on reading lists.** 98% of the librarians said they work with academics to ensure materials on reading lists were available in the Library and 41% said that they help academics with the choice of materials for reading lists. Between 55% and 80% of those who responded said they offer one-off training courses on online resources for both academics and undergraduates; they help both academics and students with the identification and use of resources throughout the year; and the subject librarian or equivalent attends some lectures to demonstrate discovery and use of resources. Academics rated the influence of librarians on reading list materials more highly than librarians themselves.
- J. **Librarians as intermediaries with suppliers.** Librarians regard themselves as their universities’ official intermediaries with suppliers (publishers and aggregators). Most of the time this works well, but the mechanism can creak. The ‘weakest link’ is exposed when the relationship needs to be three-way, to include academics.
- K. **Library budgets and measuring value.** Librarians must match often shrinking or static budgets to increasing resource needs and expanding publisher portfolios, as publishers try to accommodate the diverse needs of a fragmented market. Librarians measure value for money by several metrics, including cost per use; most acknowledge that this should not be the only yardstick used, though in practice it probably carries most weight.
- L. **Politics and students paying for resources.** The steady ratcheting up of student tuition fees and the UK Government’s policy of exposing higher education to ‘market forces’, encouraging prospective students and their parents to ‘shop around’ for the best degree courses, have meant that asking students to pay additionally for learning resources has become a political hot potato.
- M. **Should students have to pay for resources?** 49% of the librarians, 42% of the academics and 39% of the students said that students should be able to obtain all the resources they needed from the Library. 35% of the librarians, 38% of the academics and 30% of the students said that it should be a mixed economy where institution, library and students all contributed to resource provision. 12% of the librarians, 11% of the academics and 20% of the students said that at their institutions students were expected to pay for essential texts while the Library would supply the rest. Only 4% of the librarians, 9% of the academics and 11% of the students said that their institution (meaning the University itself, in addition to what was supplied by the Library) should pay for essential texts for each student (while the Library supplied additional material). There was little demonstrable appetite for university-wide provision of student texts via aggregators or other third parties.

- N. **The future of the textbook.** The value of traditional textbooks is recognised and students still like print – some are prepared to buy print resource material themselves, on a selective basis; but if publishers are to continue to be the main source of undergraduate textbook material, a more palatable business model must be found. The word ‘adoption’ in conjunction with recommended texts has almost completely dropped out of usage.
- O. **Textbook piracy.** Interest in ‘pirated’ textbooks among the students was minimal; most did not know of pirate sites, and those who did said they would not trust material obtained from them.
- P. **Length of reading lists.** The academics were relatively evenly split between preferring a long reading list with choices; a reading list with very few clearly defined texts; and ‘no preference’. Just over half the students (52%) said they preferred a short reading list and about half as many (22%) preferred a long reading list with choices. The main reasons given for providing short reading lists were that long reading lists overwhelm students and that reading lists are just meant to give students indicative content – reinforcing the concept that research-led study is now an important part of undergraduate learning. The main reason given for providing long reading lists was that students have different learning styles and the reading list tries to cater for all of them (implying also that this means recommending content in different formats); long reading lists enable the brighter or more committed students to delve deeper into the subject.
- Q. **Is the Library/Institution able to provide all resources?** Respondents across all three groups said that students could obtain all the resources they needed from the Library (49% of the librarians, 42% of the academics and 39% of the students). 35% of the librarians, 38% of the academics and 30% of the students said that it was a mixed economy where institution, library and students all contributed to resource provision. 12% of the librarians, 11% of the academics and 20% of the students said that at their institution students were expected to pay for essential texts while the Library would supply the rest. Only 4% of the librarians, 9% of the academics and 11% of the students said that their institution would pay for essential texts for each student (while the Library supplied additional material).
- R. **Open educational resources (OERs).** At some universities there is growing pressure on academics to create their own teaching and learning resources but academics are faced with considerable problems when trying to do this, especially accommodating the amount of time required. On this topic, a key finding from the study is that OERs are unlikely to take over from traditionally-published learning resources in a significant way unless: a) academics are given much more designated time in which to prepare them; and b) there is a mandate enforcing universities to share with each other resources that have been developed in ‘university time’ – however that may be defined. (The next iteration of the REF, which addresses books as well as journal articles, may bring this a step nearer to reality.)
- S. **Distance learning resources.** The relatively limited amount of evidence gathered about the resource needs of distance learning students suggests that they need greater accessibility to the kinds of learning resource available to students who are able to visit the campus regularly and/or are given full access to the Library’s resources via the appropriate IP ranges, rather than requiring inherently different learning

resources. However, it may be that these students would benefit more than others from visual aids such as Lecture Capture, 'how to' video clips, etc.

- T. **Student employability.** Linking receipt of a tertiary education to employability is a relatively new concept, even at post-1992 universities. It will become better understood as more students opt for foundation degrees, apprenticeships and sandwich courses, and as the Teaching Excellence Framework (TEF) is developed and refined. Some students (and their parents) are already voicing expectations that they will be able to forge a stronger link between their studies and employability, and this is likely to gain momentum even for those working for more 'academic' degrees. It is in this area that the metrics of the first round of the TEF are most insistent – not in assessing the quality of the teaching, as many academics who contributed to the study have pointed out, but in establishing whether the teaching – for which may be read the subject matter taught – is truly fitting today's students for 'proper' graduate jobs.
- U. **Metrics.** The metrics available to assess use of electronic resources have become more sophisticated and some metrics can throw light on the usefulness as well as use of an electronic resource – e.g., by showing how long a user has spent reading a specific page, how much material has been downloaded, how many pages have been annotated, etc.. However, it is still not possible to measure the levels of learning achieved. It is also not possible to compare use of or value for money obtained from print versus electronic resources – but it is very easy to misread the limited amount of information that can be gleaned from such comparisons.
- V. **Innovation versus tradition.** Some academics are advocating greater use of videos, digital texts, assessment suites, online gradebooks, etc., but often starting from a very low base – i.e., they barely used this type of material in the past and are making greater, but still more modest, use of it now. Others have misgivings about the effectiveness of, for example, multiple choice questions. The students tended to view such resources as 'fun' adjuncts to supplement the real heavy lifting work of serious study. However, technology-enhanced learning, often in association with the flipped classroom, is on the increase and these types of learning resource are particularly useful for the kind of pre-work that flipped learning advocates.
- W. **Publisher investment in resource innovation.** How much effort and money publishers should devote to the development of such new resources is a tricky question: this type of material is ephemeral in nature (because it has to match continually-changing course content very closely), can often be found 'free' on YouTube, etc., and can be developed by academics themselves if they are able to find the time to do it. There seems to be consensus among academics that bespoke or 'custom' textbooks are too expensive and too unwieldy, but 're-purposable' textbook material would be highly appreciated and very helpful for time-poor lecturers juggling competing demands. It was generally agreed that better publisher-provided simulations are urgently needed, especially for Nursing.
- X. **External drivers of change.** Significant external drivers of change identified by the three main stakeholder groups included the introduction of student tuition fees (selected as an important factor by 66.7% of the librarians and 51.8% of the academics who took part in the SurveyMonkey surveys); Brexit (selected as an important factor by 33.8% and 18.25% respectively); the TEF (selected as an important factor by 74.1% and 47.3% respectively); subject level TEF (which, interestingly, was selected by

40.7% of the librarians, even though little progress had been made with it at the time of writing, but only 17.6% of the academics); increased numbers of part-time students (selected by 7.4% of the librarians and 9.1% of the academics) and decreased numbers of part-time students selected by (11.1% of the librarians and 5.8% of the academics); and, finally, student expectations (selected as an important factor by 81.5% of the librarians and 78.5% of the academics). Student expectations was therefore clearly perceived to be the most significant driver of change by both academics and librarians; moreover, it was linked closely with the second most important perceived change-driver, the introduction of student tuition fees.

- Y. **Recruitment and learning resources.** Associated with student expectations and students' ratings of the teaching they receive (which the study found is widely feared by university 'hierarchies' as well as individual academics) are recruitment issues. As well as seeking to please students from traditional academic backgrounds, there is pressure for universities to keep recruitment levels up and be seen to be engaging in widening participation initiatives. The latter brings its own challenges to resource provision: the development of textbooks and other learning materials better suited to students who 'have yet to reach their potential' was a key area recommended by academics in which publishers might consider investing time and funds.
- Z. The **recommendations** from the study are as follows:

For government and university administrators

1. ***Negative issues arising from promoting competition between universities should be appraised and where possible removed.***
2. ***'TEF' should be replaced by a term which reflects more accurately the metrics by which it operates; separate, more meaningful ways of assessing teaching standards, if they can be found, should be put in place.***
3. ***Both the Government and universities should make it clearer that students are not 'paying for' their degrees.***
4. ***Undergraduate students need earlier and stronger guidance on level and volume of work required. The practice at some universities of including student representatives' participation in course committees should be adopted more widely.***
5. ***A more realistic and sympathetic assessment of academic workload should be taken by employers and greater efforts made to ensure career security and progression, especially for those without tenure.***
6. ***Better informed recognition of librarians' role is needed across HE stakeholders. It should be recognised that the relentless squeeze on library budgets is bound ultimately to have serious knock-on effects on teaching, learning and research.***

For stakeholder groups within the report (academics, librarians, students, publishers)

7. ***Publishers should make monographs and textbooks available simultaneously in print and electronic mediums; they should devise business models for supplying the same publication affordably to the library in both mediums if required; they should devise high-quality customisable PowerPoint presentations to support key topics.***
8. ***Publishers should present all the material they publish for undergraduate teaching and learning in such a way that academics can easily augment or***

- update it with their own material; contracts and licences should include permission to do so.*
9. *Publishers should experiment with formats that enable content for undergraduates to be published more quickly and with more relevance to individual modules and courses.*
 10. *Academics, publishers and librarians should work together to help students to understand better how to use journal articles and which ones are most appropriate to their needs.*
 11. *Publishers should set up reviewing mechanisms for learning materials, especially textbooks, for students considering purchase. Ideally, such a facility should be placed on common platforms, such as aggregators' websites. However, as publishers are rivals and most have some publications they don't supply through aggregators, placing it on the publishers' own websites, as well, is likely to be most effective.*
 12. *Publishers and librarians should make a joint effort to address restrictions imposed by publishers for copyright/intellectual property reasons that may impede study. These include extending licences to affiliates and alumni; working out which restrictions are necessary to safeguard rights and which may be relaxed; and perhaps extending the amount of material made available through aggregators.*
 13. *Publishers, working with academics and librarians, should consider further development of the new types of resource identified as useful by the academics, librarians and students who contributed to the study.*
 14. *Universities and departments within universities should adopt clear policies about the categorisation of items placed on reading lists (and possibly the length of the reading lists themselves, though this may be too much of a one-size-fits-all approach), so that students are clear about which resources are essential to achieve academic competence and which ones are for aiming higher. This will help librarians know how best to support students with accessing and engaging appropriate resources.*
 15. *Reading list software should be deployed by all academics at the universities where it exists and it should be installed at universities where it isn't yet operational. However, it is also strongly recommended that safeguards are put in place to ensure that the pool of resources drawn on for inclusion in resource lists does not become narrower year by year as a result.*
 16. *Librarians, publishers and aggregators should work together to produce the most granular statistics possible: for example, by enabling the identification of different user groups without contravening data protection laws.*
 17. *Librarians should enlist the help of authors and researchers to explain the importance of maintaining as diverse a set of library holdings as are consonant with the university's present and future needs, for both teaching and learning and research.*
 18. *SCONUL, or a similar body representing UK academic libraries, should commission a feasibility study into how the benefits gained from print resources may be measured more accurately.*
 19. *Publishers' and aggregators' sales representatives should seek to include librarians when setting up meetings with academics; equally, it is recommended that librarians help publishers and aggregators to achieve this.*
 20. *Some publishers and aggregators already have good 'listening mechanisms' for collecting feedback from librarians, academics and students about*

resources and resource delivery platforms. It is recommended that those who don't should implement them and that in all cases these should make as few demands on the time of the participants as possible.

- 21. All stakeholder groups should take a keen interest in Open Access as it continues to develop, especially now that Plan S has been launched, and all eligible groups should contribute to consultation papers, etc., as they appear.*
- 22. It is recommended that all the key stakeholder groups – the Government, university administrators, academics, librarians and publishers – find more effective ways of engaging in dialogue with each other and understanding both mutual and individual challenges, both as individuals and through larger representative bodies, and that, where appropriate, they involve students in this discourse. Exciting contemporary developments – such as the creation of teaching and learning centres that explore how learning takes place – offer opportunities which will be most effectively exploited by all stakeholders working together, rather than in isolation.*

PART ONE: INTRODUCTION

This report is the result of an ambitious year-long study that seeks to provide an up-to-date survey of the UK undergraduate HE pedagogical environment. Although its focus is on the UK, it has become apparent that many of the trends and issues it captures resonate with academics, students and librarians in other countries.

A key objective of the study has been to assess the impact of large-scale external factors on the acquisition and deployment of pedagogical resources. These included transformations in the way universities are funded; the concomitant changes in student expectations; and shifts in student demographics. The impact of the Teaching Excellence and Student Outcomes Framework [TEF] and the likely impact of Brexit were two important UK-specific factors also explored. Changes in the philosophy of teaching and learning and the practical implications of this were investigated, using a wide variety of secondary sources as well as primary research. An attempt has been made to synthesise the effect of all these influences and to describe the emerging pedagogical culture being embraced by British universities.

A second key objective was therefore to define the pedagogies favoured in present-day UK tertiary education and to assess what types of resource serve them best; to examine how these should be accessed and delivered; and to try to establish the most viable ways of paying for them.

The third key objective was to understand how publishers can better engage with the academic community to promote optimum learning outcomes, by developing resources that best support academic and student needs.

Objectives broken down in more detail

To help maintain the focus on objectives while conducting such a large-scale study, the objectives were broken down into the following more specific ten key questions. Each element of the study was designed to answer one or more of these questions.

- (i) How are student and lecturer expectations and practices changing with regard to the identification and use of pedagogical resources?
- (ii) How are pedagogical tools represented in resource lists?
- (iii) Is there concrete evidence of concern regarding costs of resources for students and, if so, who, according to the key stakeholder groups, should pay?
- (iv) Is there growing clarity about the impact of a long reading list versus a clear recommended text in terms of student success?
- (v) What is the range of institutional appetite for fully funding content for students?
- (vi) Is decision-making regarding resources changing to reflect increased power by the Library over resource selection?
- (vii) What is being learnt about what works in the present-day classroom? Is this affected by environmental factors such as distance learning and change in student demographics?
- (viii) What are publishers and academics doing/should they be doing to increase student engagement in accessing and using authoritatively-produced publications?
- (ix) Is the pace of change increasing? Is there evidence of greater use of digital tools?
- (x) What are the other factors influencing pedagogical change – for example, Brexit, student fees, student expectations, the TEF?

PART TWO: METHODOLOGY

Desk-based research: The secondary research has involved consulting articles published in learned journals over the past ten years, using keywords such as ‘flipped learning’, ‘blended learning’ and ‘technological applications for classroom delivery’. The authors are indebted to Professor Simon Walker of University College, London, and formerly of the University of Greenwich, and Ms Fiona Greig, Head of E-Strategy and Resources at the University of Surrey Library, for advice on the literature and practical help in obtaining it. Two journals edited by Professor Walker, the *Journal of Educational Innovation, Partnership and Change* and *Compass*, have proved particularly relevant and useful.

The **primary research** has employed several forms:

Three SurveyMonkey surveys were circulated, to UK academics, students and academic librarians respectively. As far as possible, the questions asked in each survey ‘mirrored’ those asked in the other two¹. 79 UK librarians, 399 UK academics and 108 UK students responded to these surveys². Of the librarians, most were from post-1992 universities (34%) and Russell Group universities (27%). Of the academics, most were also from post-1992 universities (34%) and Russell Group universities (22%). Just under 25% of the students were from post-1992, Russell Group and post-2000 universities respectively. Other types of institution listed by the three groups were FE colleges (17 mentions); affiliated institutions (10 mentions); the NHS; ‘alternative’ providers; conservatoires; and private universities.

Five UK universities were asked to participate in in-depth studies. They were the University of Greenwich and the University of Huddersfield (both post-1992 universities); the University of Nottingham and the University of Edinburgh (both Russell Group universities); and the University of Surrey (a 1960s university). There was especial focus on the following five disciplines: Business and Management; Education; Nursing; Psychology; and Sociology. Academics and librarians representing these subjects at the five in-depth universities were asked to participate in semi-structured telephone interviews. Some further interviews with academics at other Russell Group universities also took place³. Undergraduate students in their second year or above, representative of each of the five disciplines where possible, were asked to take part in focus group discussions. Six focus group meetings were held altogether, two at Greenwich and one each at the other four institutions.

A note on how this report has been structured

It will be evident from the description of the Methodology (above) that a huge amount of information and data has been assembled. Sifting through all this material to create a coherent and unbiased study has been a challenge which the authors hope has been embraced successfully. Inevitably, some of the material gathered has not been used, but as far as possible all representative comments, of whatever hue, have been included. To make the core narrative run smoothly, only a few direct quotations from the in-depth interviews and focus groups have been used to complement the data; however, some sections for which a great deal of useful additional material was collected have been supplemented with a substantial body of notes for readers who are interested in further details.

¹ The librarian survey contained several questions not asked of the other two groups.

² A significant number of responses in each group were received from outside the UK.

³ These were academics who participated in the SurveyMonkey surveys and volunteered to be contacted again.

PART THREE: MAIN FINDINGS

I. Approaches to teaching and resource use in UK Higher Education Institutions

Have teaching methods changed?

Figure 1, below, tracks the responses received for this question from the three stakeholder groups across the two types of university identified.

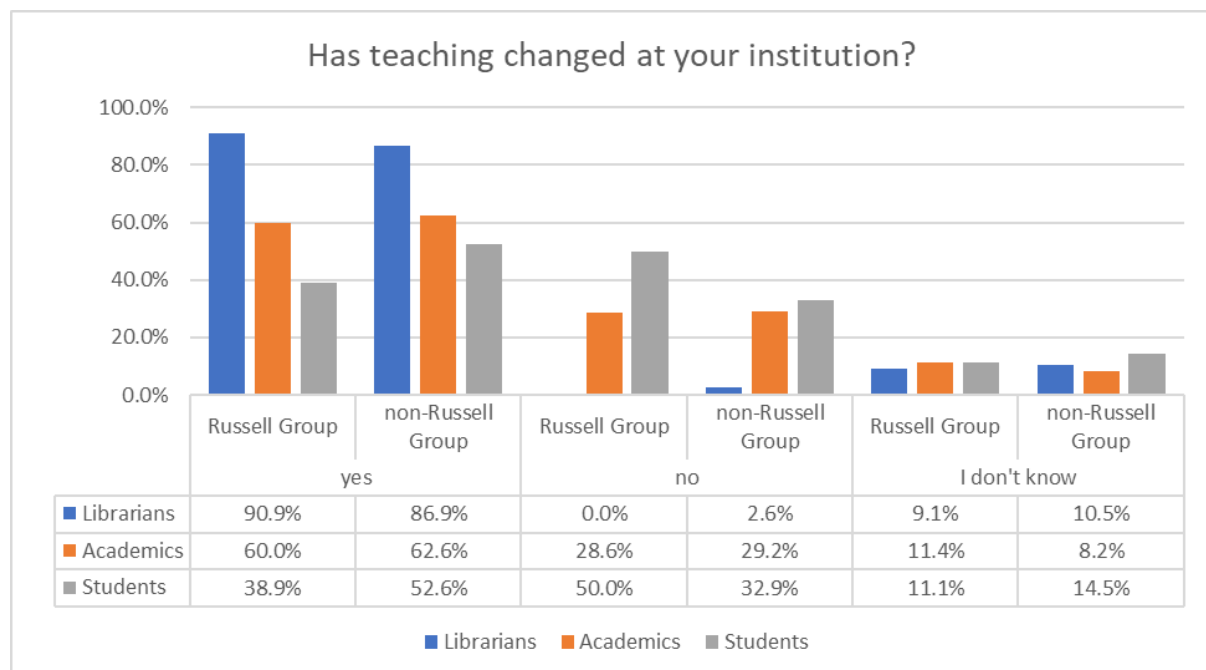


Figure 1: Change of teaching

As the chart shows, 91% of the Russell Group librarians said that teaching practices had changed at their universities; and the remaining 9% said they didn't know whether this was the case. None said that teaching practices hadn't changed. 87% of the non-Russell Group librarians said teaching practices had changed; 3% said they hadn't changed; and 11% said they didn't know.

60% of the Russell Group academics said that teaching practices had changed at their universities; 29% said they hadn't changed; and 11% said they didn't know. 63% of the non-Russell Group academics said that teaching practices had changed at their universities; 30% said they hadn't changed; and 8% said they didn't know. It will be noted that these results are more or less similar across the two academic stakeholder sub-groups.

39% of students at the Russell Group universities said that teaching practices had changed at their universities; 50% said they hadn't changed; and 11% said they didn't know (this last result was surprisingly low: as mentioned elsewhere in this report, the students had a much shorter period of comparison in which to consider change). 53% of the non-Russell Group students said that teaching practices had changed at their universities; 33% said they hadn't changed; and 15% said they didn't know. The contrast between the results at the two types of university

matched the expectation that the non-Russell Group universities were probably more experimental in their approach to teaching than the Russell Group universities.

Changes in pedagogical practice and the effect on resources

Of the respondents to the SurveyMonkey surveys, 82% of the academics, 62% of the librarians and 45% of the students⁴ said the approach to pedagogy had changed at their institutions. Among all these groups, introduction of the 'flipped' classroom (listed by 20% of the academics, 29% of the librarians and 11% of the students) and an increased focus on technology-enhanced learning were the most mentioned catalysts for change. (These are complementary rather than mutually exclusive pedagogical practices.) The trend for undergraduates to be encouraged to publish ('students as researchers') and concern over existing teaching standards were also mentioned frequently.

The responses demonstrated the considerable efforts made by academics and librarians to promote a wide range of resources. Textbooks (print and electronic) and electronic journals were the most frequently listed resources across all three groups. The librarians (78% of whom listed print books and 85% e-books) perceived books to be more important than either academics (39% listed print and 58% e-books) or students (41% listed print and 59% e-books). About half of all the respondents across all three surveys said undergraduates were encouraged to use online quizzes and about half said they were encouraged to use materials created at the university. There was wide divergence of views on the importance of aggregated databases. 80% of the librarians said students were encouraged to use these, but only 22% of the academics and 13% of the students. Interactive websites and videos were considered important by all three groups, but the students were less enthusiastic about them (39% listed interactive websites and 51% listed videos) than librarians (51% and 71% respectively) and academics (56% and 68% respectively). 30% of both the academic and librarian respondents said undergraduates were encouraged to use simulations and games, but only 15% of the students said this.

Types of resource used

When asked to list the resources actually used, although 81% of the librarian said there had been changes, none of the more innovative resources mentioned were thought to have reached double digit percentages in actual use. 6% of the academics and 5% of the librarians listed simulations and visual learning. Mentions of other types of relatively new resource were considerably lower. The in-depth interviews and the focus groups also showed there is often a discrepancy between the resources students are encouraged to use and those they actually use and helped to clarify the reasons for this. The chief conclusion to be drawn is that although many different types of resource are now in use, the most important ones – by far – remain books and journal articles, with the emphasis shifting progressively further towards journal articles after the first year of undergraduate study.

⁴ The students had a shorter time frame of experience on which to draw, which may explain why fewer of them noted change.

PART THREE: MAIN FINDINGS

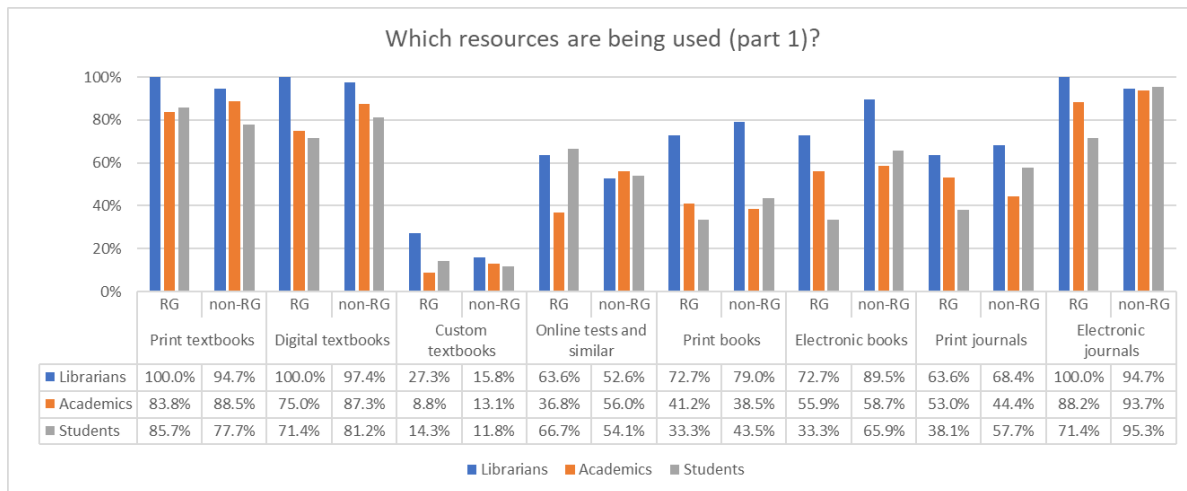


Figure 2: Resources used (1/2)

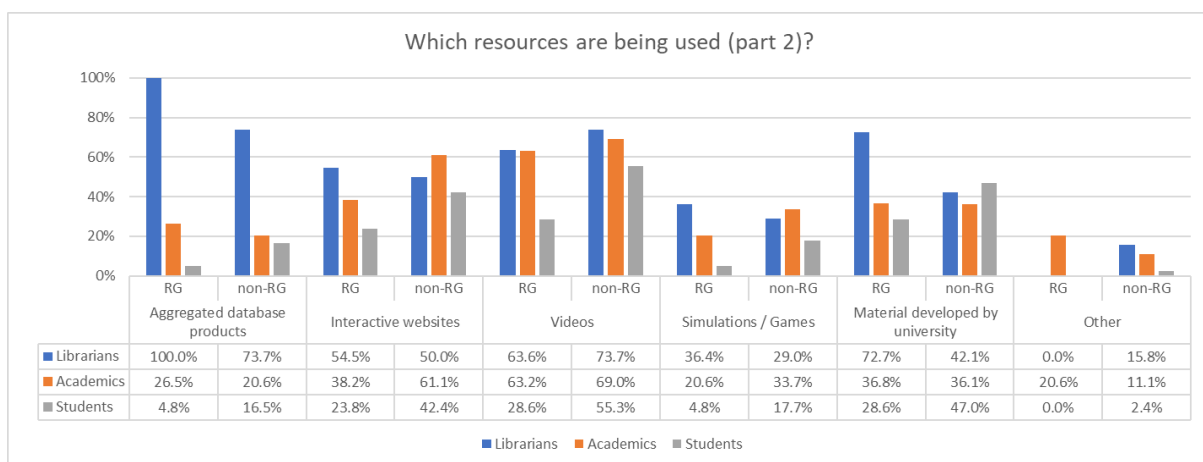


Figure 3: Resources used (2/2)

Figure 2 and Figure 3 above illustrate the resources which SurveyMonkey respondents said they used, divided between Russell Group and non-Russell Group. The charts illustrate that the differences in resources stated to be used between types of university are not as great as the differences between those stated to be used by the three key stakeholder groups. However, there are still some interesting distinctions to be made between stakeholder groups at the two types of university.

Librarians at both Russell Group and non-Russell Group universities generally over-estimated the use of all types of resource used when compared with academics and undergraduates⁵. Exceptions to this were that 67% of the Russell Group students said they used online tests and simulations (while only 64% of the librarians and 37% of the academics said these were used); more surprisingly, only 54% of the non-Russell Group students said they used these (and 56% of non-Russell Group academics and 53% of the non-Russell Group librarians).

Print and digital textbooks were cited the most by all the stakeholder groups, at both the main types of university. 86% of the students at Russell Group universities said they used print textbooks and 71% said they used digital textbooks. The equivalent figures for non-Russell

⁵ Librarians are the most likely of the three groups to list what they know to be available, rather than what is actually used.

Group students were 78% and 81% respectively, illustrating greater use of digital textbooks versus print at non-Russell Group universities.

100% of the librarians at Russell Group universities said that print textbooks were used and 100% also said that digital textbooks were used. The equivalent figures for non-Russell Group universities were 95% and 97% respectively.

84% of the academics at Russell Group universities said that print textbooks were used and 75% said that digital textbooks were used. The equivalent figures for non-Russell Group universities were 89% and 87%. The difference between academic responses at the two types of university probably reflects the increased and earlier (in the student's career) emphasis of academics on the use of journal articles at Russell Group universities.

Custom textbooks were clearly not important to any of the groups across either type of university, though interestingly librarians (27% from Russell Group universities and 16% from non-Russell Group universities) mentioned them more frequently than academics or students – an anomaly which may reflect that some customised texts⁶ still form part of library holdings but are no longer in active use.

Non-Russell Group students said they were more likely to use e-books than Russell Group students (66% vs 33%); but in neither case did their use of e-books match the librarians' claim of the extent of e-book use (73% at Russell Group universities and 90% at non-Russell Group universities); or, in the case of Russell Group universities, even match the academics' claim of e-book use (56%); conversely fewer academics at non-Russell Group universities (at 59%) mentioned e-books than students.

Student use of electronic journals was predictably high, but it was perhaps surprising that stated e-journal use at non-Russell Group universities (at 95%) was significantly higher than at Russell Group universities (71%). Academic use of electronic journals at both types of institution was (predictably) high – the only slight surprise being that fewer of the Russell Group academics (88%) said they used journal articles than the non-Russell Group academics (94%). Librarians' estimate of the use of electronic journals was somewhat optimistic when compared with the other two groups, at 100% at Russell Group universities and 95% at non-Russell Group universities. Students' claimed use of print journals (at 38% for Russell Group universities and 58% for non-Russell Group universities) was also higher than might be expected, given that many libraries are phasing out print journals subscriptions (though at least 64% of the Russell Group librarians and 68% of the non-Russell Group librarians clearly still had print holdings), but again students may have counted articles they had printed out themselves or supplied in printed coursepacks as 'print' and some libraries also keep printed-out articles in short-term loan collections.

The huge discrepancy in claimed use of aggregated database products (100% of Russell Group librarians and 74% of non-Russell group librarians versus 27% and 21% of academics and 5% and 17% of students respectively) may be explained by the probability that only the librarians fully understood what was meant by the term 'aggregated database'.

Moving to the more avant-garde types of resource, among all the stakeholder groups and types of institution, Russell Group students said they were the lowest users of interactive

⁶ Custom texts were popular in the first decade of this century. They have declined in popularity in recent years. Academics who took part in the in-depth interviews gave some reasons for this: custom texts are time-consuming to prepare, especially as the content changes every year; if derived from material supplied by a single publisher, they are of limited use (a constraint now addressed by paying for the extended CLA licence); and students are unwilling to pay for them.

websites (24%, as opposed to 42% of non-Russell Group students); videos (29%, as opposed to 55% of non-Russell Group students); and simulations or games (5%, as opposed to 18% of non-Russell Group students).

Among librarians, 55% of Russell Group and 50% of non-Russell Group said that interactive websites were used; 64% and 74% respectively said that videos were used; and 36% and 29% respectively said that simulations or games were being used.

Among academics, 38% of Russell Group and 61% of non-Russell Group said that interactive websites were being used; 63% and 69% respectively said that videos were being used; and 21% and 34% respectively said that simulations or games were being used.

The greatest point of similarity among academics representing the two main types of university concerned material developed by the university itself: 37% of Russell Group and 36% of non-Russell Group academics said such material was in use (a slight surprise, as it might have been expected that non-Russell Group academics would lead here). 73% of Russell Group and 42% of non-Russell Group librarians said that university-produced material was being used; and 29% and 47% of students respectively. See also the section on Open Access resources and OERs [\[on page 48 below\]](#).

Summary Box 1

Changes in teaching practices and resources used

- Undergraduate teaching practices are changing in the UK across all university 'types'. They are, however, changing at different rates, not just between universities, but between departments and individual teachers within the same university.
- The flipped classroom is the most prevalent new trend identified. Use of it was introduced more than 10 years ago by some individuals; it is escalating rapidly now.
- There is increased focus on technology-enhanced learning.
- Across all university types, there is concern about achieving high standards of teaching. This predates the introduction of the TEF.
- At some universities, undergraduates are being encouraged to publish.
- Academics are making an effort to promote a wide range of learning resources, including online quizzes and games, simulations, interactive websites and videos, in part to accommodate different learning styles.
- Some universities are encouraging academics to develop their own learning and teaching materials.
- There is some discrepancy between resources academics and students say they recommend/use and those actually being used.
- Despite this conscious deployment of a rich and varied range of learning resources, textbooks and journal articles still constitute the bedrock of undergraduate education. There is a shift in perceived importance here: journal articles are widely regarded as more important than textbooks, especially after the first year. However, textbooks are still essential for the provision of core information in most disciplines.
- Textbooks may be in electronic or print format. Some students prefer print. There is evidence that print and electronic textbooks are used for different aspects of study by students.
- The study suggests some differences in approach between Russell Group and non-Russell Group universities, but these are not as marked as might have been expected.

Have the types of resource used changed?

The three stakeholder groups were asked if resources had changed (librarians and academics, over the past three years; students, over the course of their university career to date).

70% of the Russell Group librarians and 79% of the non-Russell Group librarians said that the resources actually used had changed; 61% and 72% respectively of the academics said this; and 56% and 51% of the students. (It was expected that the figure would be lower for students, as they were likely to be making comparisons within a shorter period of time.)

The charts below illustrate the changes listed in detail by the stakeholder groups across both types of university.

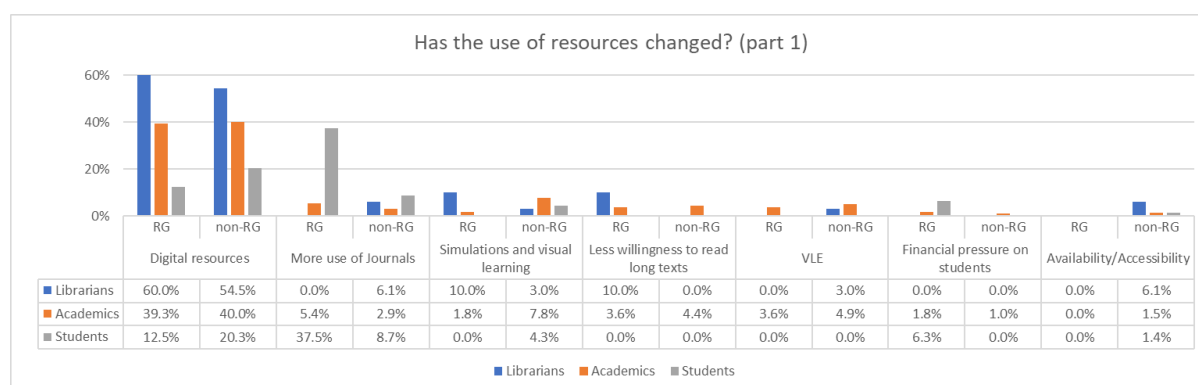


Figure 4: Change of resources used (1/2)

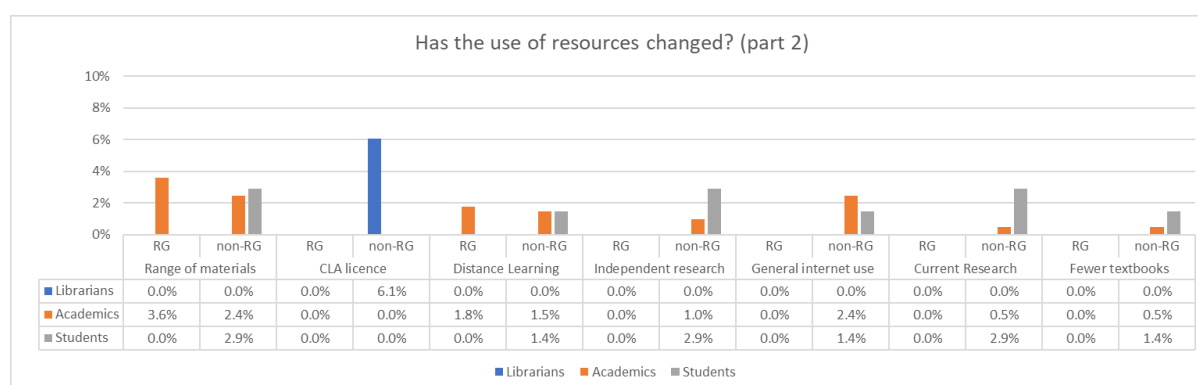


Figure 5: Change of resources used (2/2)

60% of Russell Group and 55% of non-Russell Group librarians said that more digital resources were being used; 39% and 40% respectively of the academics also said this; and 13% and 20% respectively of the students. None of the Russell Group librarians thought that use of journals had increased (this was logical, as they had already said that use of electronic journals was 100%). 6% of the non-Russell Group librarians said that use of journals had increased. 38% of the Russell Group students and 9% of the non-Russell Group students respectively said that use of journals had increased. The latter result bears out the strong assertion made by librarians and academics in the in-depth interviews that there has been a conscious shift towards making undergraduate teaching more 'research-led', particularly at Russell Group universities.

10% of the Russell Group librarians (vs 3% of the non-Russell Group librarians) said they had experienced greater use of simulations and visual learning aids (the Russell Group librarians may have been recording this from a very low starting base). However, only 2% of the Russell

Group academics said they were using more of this type of material, whereas 8% (still a low figure) of the non-Russell Group academics said this. None of the Russell Group students and only 4% of the non-Russell Group students said they were using more of this kind of material, though this does not mean they were not finding material of this nature on their own account. The students taking part in the focus groups, for example said they used YouTube clips they found themselves, particularly when looking for explanations of how things worked.

None of the Russell Group librarians thought that use of VLEs had been a factor in the changed use of resources and only 3% of non-Russell Group librarians thought this. Of the academics, 4% and 5% respectively thought use of VLEs had been a factor and no students did. This may indicate that the role of VLEs is now entrenched in methods of resource delivery (helped perhaps by mandates issued by a number of vice-chancellors some time ago that they should be used more extensively); however, many of the focus group students were lukewarm in their enthusiasm for VLEs, saying that the quality, relevance and timeliness of material placed on them was 'only as good as the lecturer'. The in-depth interviews and focus group meetings also demonstrated that the faculty overall at some universities use VLEs more effectively than at others.

None of the librarians (from either group) believed that financial pressure on students had been a factor in the changing use of resources. Given that both the librarians who responded to the SurveyMonkey survey and those who were interviewed in depth almost all thought that students shouldn't have to pay for resources over and above what they pay in tuition fees, this response is unsurprising. Although, all librarians say that managing the resources budget grows ever more difficult and some feel that the university should share the burden of resource costs by allocating funds to provide students directly with some resources, being able to say that students can find all the resources they need in the Library is almost synonymous with describing their *raison d'être*; added to which, proof of ability to resource is one of the conditions of successful course validation. 2% of Russell Group academics and 1% of non-Russell Group academics said they thought financial pressures on students had made a difference to resource use. These are negligible percentages, and surprising because some of the academics who took part in the in-depth interviews were strongly critical of the amount that students had to spend on books if they wished to own them. The focus group students showed a fairly balanced attitude towards spending some money on books; but almost all who mentioned purchase costs said they resented having to pay the University for printing, particularly for printing out assignments, if this was a course requirement.

None of the Russell Group stakeholders considered that availability of or accessibility to resources caused change in how they were used. 6% of the non-Russell Group librarians, 2% of the academics and 1% of the students thought that availability/accessibility made a difference. Although these are small percentages, the in-depth interviews, especially those with librarians, offer some explanation for this: first of all, non-Russell Group universities rely even more heavily on digital textbooks than Russell Group universities, and not all textbooks are available digitally⁷; secondly, although librarians across all types of university complain about site access restrictions⁸, non-Russell Group universities are more likely to have college affiliates whose students are not entitled to use the Library's holdings.

⁷ Or they are made available digitally some time after the print version has been published.

⁸ Guest researchers, temporary students, distance learning students, etc., may be denied access by some publishers' and aggregators' site licences.

None of the librarians said the range of materials on offer had changed. This may be explained by the fact that librarians are aware of all the Library's resource holdings. Changes in use noted by other stakeholder groups therefore probably reflect that the resources have been newly-discovered, rather than newly-acquired. However, only 4% of Russell Group academics and 2% of non-Russell Group academics said the range of materials they used had changed and among the students, none of the Russell Group students and only 3% of the non-Russell Group students said this.

Whether deployment of the Copyright Licensing Agency (CLA) licence had affected use of resources was a question put only to the librarians. The Russell Group librarians said that it had had no effect and 6% of the non-Russell Group librarians said it had made a difference. The in-depth interviews showed that at one of the non-Russell Group universities that took part, the Library was spending a considerable amount of its resource fund on the extended terms offered by the licence in return for extra fees⁹. (The standard CLA licence has now been in existence for many years and is the main vehicle by which permissions for materials included in coursepacks are secured.)

Changes observed by all stakeholders, and across both types of university, in resources used for distance learning, independent student research, general internet use and current academic research were minimal. It is likely that these results reflect the more specialised nature of these types of activity, meaning that most of the respondents were not equipped to provide knowledgeable answers¹⁰. Virtually none of the respondents recorded lower use of textbooks.

⁹ The CLA licence allows academics to copy one chapter or 5%, whichever is the greater, of a book to include in coursepacks, etc. In practice, it is usually the Library which ensures that the terms of the licence are fulfilled and often also carries out the copying. There are similar rules for journal articles. For a fee, additional amounts of material can be copied. See www.cla.co.uk/higher-education-licence and www.cla.co.uk/second-extract-permissions (both accessed 1 November 2018).

¹⁰ This is a point that will be noted if a future survey is undertaken and an attempt will be made to find respondents better able to answer these questions.

Summary Box 2

Changes in resources used in more depth

- Use of journal articles has increased, reflecting more 'research-led' teaching.
- There is evidence of some increased use of simulations and video games, though probably from a very low starting base.
- Students will search for YouTube clips to help their studies, especially 'how to' applications.
- Few librarians and academics believe financial pressure on students is a significant factor in the changing use of resources.
- Students show a willingness to pay for *some* carefully selected resources. They hate being charged by the University for printing.
- Few librarians and academics believe accessibility to learning resources causes change in how they're used.
- However, there is considerable concern about accessibility in two key areas: lack of availability (or affordability) of some textbooks in digital format and the exclusion of students from affiliate institutions from the Library's holdings (owing to publisher restrictions).
- Evidence from librarians suggests that the range of resources available has not changed greatly in recent years; what has changed is academic and student awareness of the existence of certain resources, causing deployment of them to increase significantly.
- There is some (limited) evidence that payment by a library for the extended CLA licence enables better targeted resource holdings and affects promotion of resources.
- Librarians and academics said they observed little change in the nature of resources used for distance learning, independent student research, general internet use and current academic research.
- Despite the widespread observation that textbooks are yielding in importance to journals as the primary undergraduate learning resource, the study showed little drop in recorded use of textbooks.

Types of resources named in reading (resource) lists

Many universities now refer to 'resource lists' rather than 'reading lists' – though, somewhat confusingly, proprietary software that maps resources to library holdings is usually called 'reading list software'. The replies to the question about types of resource named in reading lists yielded some markedly different results between Russell Group and non-Russell Group stakeholders, particularly among the librarians.

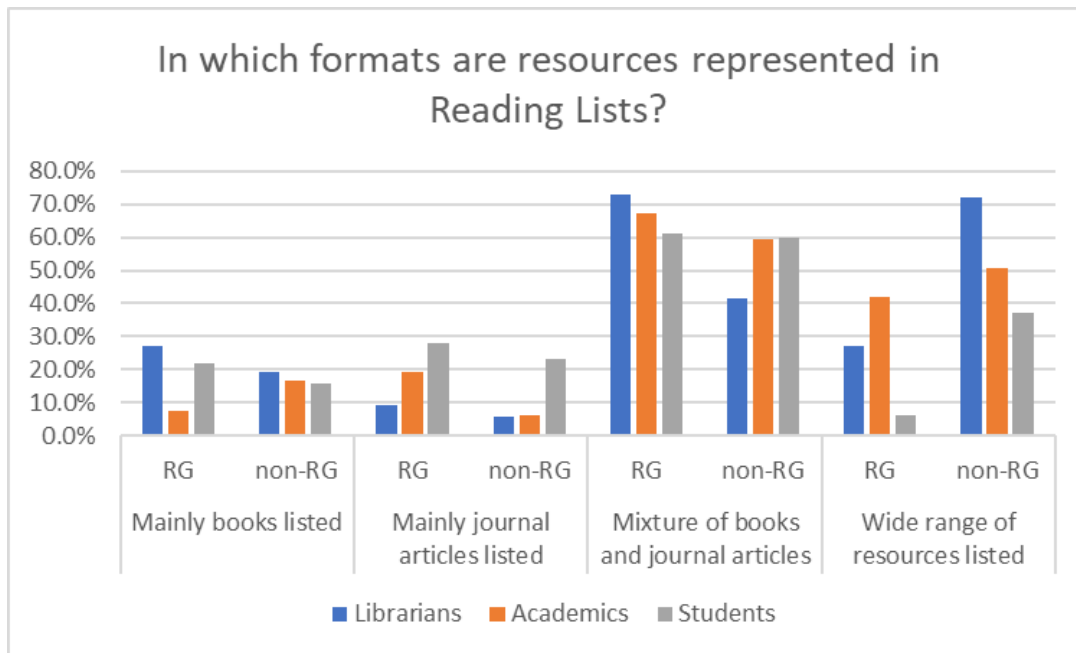


Figure 6: Formats represented in reading lists

73% of Russell Group librarians (vs 42% of non-Russell Group librarians) said that reading lists mainly contained a mixture of books and journal articles. 72% of non-Russell Group librarians (vs 27% of Russell Group librarians) said that reading lists mainly contained a wide range of resources. However, 27% of Russell Group librarians (vs 19% of non-Russell Group librarians) said that reading lists mainly contained material from books and only 9% (Russell Group) and 6% (non-Russell Group) respectively said that reading lists contained mainly journal articles.

67% of the Russell Group academics (vs 60% of non-Russell group academics) said that reading lists mainly contained a mixture of books and journal articles. 42% of Russell Group academics (vs 51% of non-Russell Group academics) said that reading lists mainly contained a wide range of resources. 8% of Russell Group academics (vs 17% of non-Russell Group academics) said that reading lists mainly contained material from books. 19% of Russell Group academics (vs 6% of non-Russell Group academics) said that reading lists contained mainly journal articles.

The students gave the most internally consistent replies – and the least different from each other across the two types of university. 61% of Russell Group students and 60% of non-Russell Group students said that reading lists contained mainly a mixture of books and journal articles. 6% of Russell Group students (vs 37% of non-Russell Group students) said that reading lists contained a wide range of resources. 22% of Russell Group students (vs 16% of non-Russell Group students) said that reading lists mainly contained material from books. 28% of Russell Group students (vs 23% of non-Russell Group students) said that reading lists contained mainly journal articles.

Drawing both on the above information and the in-depth interviews, it may be deduced that academics at both types of university are expanding the range of resources presented in reading lists, though some librarians at Russell Group universities may have yet to catch up with this trend, while librarians at non-Russell Group universities observe a greater variety of resources placed by academics on reading lists than the academics do themselves. The results also suggest journal articles, in particular, do not hold the dominant position in reading lists that academics often say they do during interviews and conversations; books are more

important to students (and this is probably recognised by librarians, whose scores on books were similar to those of the students) than academics realise; and except for the view of non-Russell Group librarians, who place much more emphasis on variety of resources than all other stakeholder groups, reading lists are still dominated by a mixture of books and journal articles. It should be noted that the accuracy of these librarians' views is not being disputed, as students – and possibly academics – are more likely to base their replies on what is actually being used and, as stated elsewhere, librarians inevitably have the best overview of what is happening at the University as a whole. However, it is also worth pointing out that the responses from librarians and academics (though not students) are likely to be coloured by the University's mission statement and other internal directives – for example, to increase the variety of resources listed as part of a widening participation drive.

Who should pay?

The question of who should pay for undergraduate resource materials has become a political issue: many universities have promised students that there are no 'hidden costs' attached to enrolling for their degrees – i.e., that tuition fees, accommodation and other cost of living expenses will be all they have to pay for. This question, put to all the SurveyMonkey participants, therefore elicited a more mixed range of replies than might have been expected.

Only 22% of Russell Group students and 43% of non-Russell Group students said they thought they should be able to obtain all the resources they needed through the Library. 64% of the Russell Group librarians and 45% of the non-Russell Group librarians concurred; broadly, Russell Group university libraries have higher budgets and, again broadly, non-Russell Group universities are much more likely to promote to prospective students the 'no hidden costs' message, which partly explains these results. Among the academics, only 22% from the Russell Group universities and 43% from the non-Russell Group universities thought the Library should pay for all resources.

Despite the fact that some librarians were clearly concerned that library budgets would not stretch to providing all undergraduate resources – and this was borne out more incisively during the in-depth interviews with them – none of the Russell Group librarians and only 5% of the non-Russell Group librarians said they liked the 'institution pays' model, in which the institution itself reserves a proportion of the tuition fees to provide each student with one or more essential textbooks in either print or electronic format. 11% of Russell Group academics and 8% of non-Russell Group academics were in favour of this. 17% of Russell Group students and 10% of non-Russell Group students agreed. It is difficult to say why this resource delivery model, which would seem to deliver a win-win situation to each of these stakeholder groups, was so unpopular. (The University is the only potential loser, but it gains the benefit of being able to promote a 'no hidden costs' policy, which should aid recruitment.) Perhaps lack of familiarity with the model persuaded the stakeholder groups that there must be a hidden catch; and among the librarians, as some of the in-depth interviews showed, there was probably also concern that the Library might not be involved in the procurement process.

None of the Russell Group librarians thought that students should have to buy essential texts and 16% of the non-Russell Group librarians thought they should. 11% and 12% of the Russell Group and non-Russell Group academics respectively thought students should pay for essential texts. Of the students themselves, 28% from Russell Group universities and 18% from non-Russell Group universities thought they should have to pay – by far the largest group to support student payments for resources across the three stakeholder groups. Students themselves explained the reason for this during the focus group meetings. Those who were willing to pay took the view that if they wanted to have access to the books they needed at all

times in order to get the best possible results, they needed to own the books. They also said that they were discriminating about the books they bought, particularly after the first year. Most would not buy a book unless they had already obtained first-hand experience of its usefulness. Strikingly, in the student focus groups two second-year Psychology students from two different universities said that in the first year they had each spent £150 on recommended books which turned out to have minimal value in helping with their coursework.

Despite the political manoeuvrings that complicate the issue of who should pay, 36% of Russell Group and 34% of non-Russell Group librarians advocated a 'mixed economy', consisting of a mixture of the institution and/or the Library paying for essential texts, the Library providing most other materials and students paying for some materials. 27% and 41% of the academics respectively also took this view; and 33% and 30% respectively of the students. Aside from the 'institution pays' element, this is, of course, the traditional, time-honoured method of how undergraduate resources have been paid for.

Summary Box 3

Who should pay?

- Who should pay for undergraduate resources has become a political issue: universities want to emphasise there are no 'hidden costs' over and above the fees.
- Non-Russell Group universities are more likely to promote the no-hidden-costs message.
- The view that the University should be responsible for paying for all undergraduate resources is not as marked at Russell Group universities.
- The 'institution pays' model whereby every student receives a copy of one or more core texts paid for by the University is not popular, even among students (who argue that unless the text is completely relevant the University will have been wasting money).
- The study produced no outright majority verdict on who should pay. The 'mixed economy' solution in which the institution and/or the Library pays for essential texts, the Library pays for most other teaching and learning materials and students pay for some items, attracted the largest number of supporters across all stakeholder groups.
- Once more, students indicated a willingness to make some judicious purchases

External factors which have an impact on teaching and changes in pedagogical approach

Only the librarians and academics were asked this question.

Figure 7, below, illustrates the differences between the stakeholder groups and the two types of university.

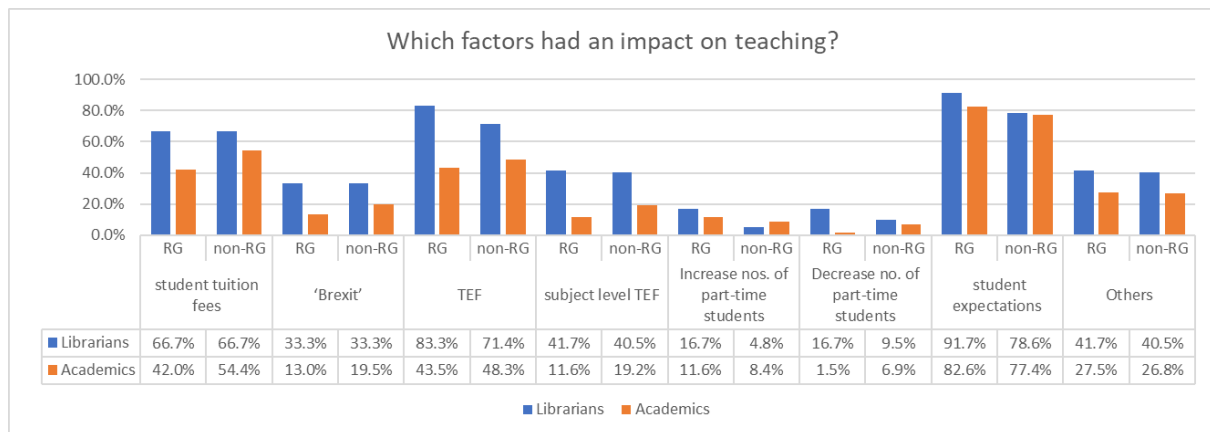


Figure 7: Factors impacting teaching

It will immediately be noted that while there were significantly measurable differences in the opinions of the academics from the two university groups about the factors which had most influence on teaching, the opinions of the librarians of both groups were very similar. 67% of the librarians in both groups thought that student tuition fees had had an impact on teaching. 33% in both groups thought that Brexit was having an impact. 84% of Russell Group librarians and 71% of non-Russell Group librarians thought the TEF was influencing teaching. 42% of Russell Group librarians and 41% of non-Russell Group librarians thought that subject level TEF (which at the time of the survey had not been either introduced or fully explained) would affect teaching. 17% of Russell Group librarians and 5% of non-Russell Group librarians thought that increasing numbers of part-time students would have an impact and conversely, 17% of Russell Group and 10% of non-Russell Group librarians thought that decreasing numbers of part-time students would have an impact. 92% of Russell Group librarians and 79% of non-Russell Group librarians thought that changing student expectations would influence teaching. 42% of Russell Group librarians and 41% of non-Russell Group librarians also listed other factors.

Agreement between academics from the two groups was less marked. 42% of the Russell Group academics and 54% of the non-Russell Group academics thought that student fees had an impact on teaching. 13% and 20% respectively thought that Brexit was having an impact. 44% and 48% respectively thought the TEF was influencing teaching (that the Russell Group figure was lower was surprising, as the evidence from the in-depth interviews and other contemporary accounts suggests that both senior management and individual academics at Russell Group universities were worried that their institutions had focused on research to the detriment of teaching). 12% of Russell Group academics and 19% of non-Russell Group academics thought that subject level TEF would affect teaching (again, it's likely there was less focus on this because no detailed plans for implementation had been disclosed; and a significant number of the academics who were interviewed in depth were of the opinion that it 'would never happen' or that the government would 'quietly forget about it'). 12% of the Russell Group and 8% of the non-Russell Group academics thought that increasing numbers of part-time students would have an impact; conversely, 2% of Russell Group academics and 7% of non-Russell Group academics thought that decreasing numbers of part-time students would

have an impact. 83% of Russell Group academics and 77% of non-Russell Group academics thought that changing student expectations would influence teaching. 28% and 27% respectively listed other factors.

Summary Box 4

External factors having most influence on teaching

- Librarians thought that changing student expectations were exerting the most influence on changing approaches to teaching, followed by the TEF, tuition fees, subject level TEF, Brexit and decreasing/increasing numbers of part-time students.
- Academics also thought that changing student expectations were exerting the most influence on changing approaches to teaching, followed by tuition fees, the TEF, Brexit, subject level TEF, and decreasing/increasing numbers of part-time students.
- It is important to note a) that there was little information available on subject level TEF at the time, and b) that of course Brexit had yet to happen. The in-depth interviews indicated that there was more concern about some of these issues in certain disciplines: for example, Business and Nursing academics were more worried than others about Brexit.
- The in-depth interviews also make clear that the changes in student expectations may include the linking in students' minds between paying fees and getting a 'good' degree. Some academics suggested that students may even make the erroneous assumption that they are 'paying for' the grade.

How well the institution supports academics

What was clear from the answers given in the section above was that academics are expected not only to teach in a rapidly-changing pedagogical environment, but also to cope with a large number of changing external factors. The academics who took part in the in-depth interviews were asked how well they felt the institution supported them in this time of immense change. This question was only tangentially related to the pedagogical methods and resources they deploy, but both directly and indirectly the support of the institution must clearly be vital in enabling academics to work efficiently and with equanimity when under pressure.

The variation in responses related more to the individual institution than to different subject disciplines. The academics who felt they obtained least support from the institution all worked at a post-1992 university which expected them to divide their time between teaching, research, administration and even, in some instances, developing their own teaching materials. The ones who seemed to cope best with the demands placed on them worked at a long-established non-Russell Group university that, although it encouraged them to both teach and carry out research, allowed them to choose which of these aspects of their work they preferred to be assessed in for career development purposes. All the respondents, except the ones from this university, mentioned the conflict between teaching and research.

That a disproportionate amount of time had to be spent on administration was a common complaint. Time pressures also meant that several academics didn't have time to explore and familiarise themselves with some of the electronic resources held by the Library. Some said

that the fact that their institution had 'done well' in the TEF was misleading, because most of the TEF criteria are not about quality of teaching. Those who had opted to focus on teaching – again, except at the university that offered a choice – frequently said that they were aware that this probably meant drawing a line under career progression prospects.

Some of the academics avoided giving a direct answer to the question of whether they felt supported by the institution. Of those who did, most said they were well-supported except for lack of acknowledgement by the university administration of the time pressures placed on academics 'at the coal face'. Almost all singled out the Library for praise and said that the librarians supported them well.

Summary Box 5

How well academics feel supported by the University

- Having to cope with time pressures was the constraint mentioned by most of the academics interviewed in depth, with many adding that the administrative hierarchy at the institution, even if outwardly sympathetic, does little to alleviate the problem.
- The time constraints described were continually having to juggle teaching, research and administration; not having the time to explore the potential of teaching and learning resources, especially electronic ones; and being expected to develop and maintain their own teaching and learning materials on top of all these other tasks.
- Some of the academics interviewed had opted to focus on teaching rather than research; most of these said they knew the decision would have an adverse effect on their careers.
- One of the universities studied in depth operates a policy of allowing academics to choose either teaching or research for career development purposes, even though they are still encouraged to do both. This seemed to go a considerable way towards relieving the pressure.
- Virtually all the academics interviewed said they were well-supported by the

Focus On: Main differences between Russell Group and non-Russell Group Universities

The study suggests some differences in approach between Russell Group and non-Russell Group universities, but these are not as marked as might have been expected.

Resources

- Surprisingly, the percentages of academics and students who said they used journals as teaching resources was slightly higher at non-Russell Group than at Russell Group universities.
- Non-Russell Group universities rely more heavily on digital textbooks than Russell Group universities.

Reading Lists

- Reading lists at Russell Group universities tend to contain mainly books and journals articles, whilst those at non-Russell Group universities are more likely to contain a wide range of different kinds of resources.
- At Russell Group universities, students are being encouraged more to find their own resources, which is reflected in reading lists.
- Russell Group students seem to be more committed to reading than non-Russell Group students and are more likely to be expected to buy some resources themselves.

Library

- The cooperation between academics and Library seems to be less prominent at Russell Group universities; academics seem to see the Library more as a 'service to them' and less than a partner. This relationship tends to be more collaborative at non-Russell Group universities.

Teaching

- The National Student Survey (NSS) seems to be of a bigger concern at Russell Group universities – mainly, because many of them haven't done all that well in the past.
- Flipped learning is being practised everywhere, but traditional teaching methods dominate the curriculum more at Russell Group universities.
- There is more focus on research-led teaching at Russell Group universities than there is at non-Russell Group universities.

Academics

- There is a concern about increased student expectations – as everywhere else – but at Russell Group universities more academics believe that that's a perceived pressure by senior management (maybe due to increased tuition fees), and that the actual expectations have in fact not changed.
- The pressures over the TEF versus REF/teaching versus research are higher for academics at Russell Group universities than they are at non-Russell Group universities.

Other

- Learner analytics have become more important than usage stats (that may be a trend across all universities, but Russell Group universities are simply in a better financial position to implement such projects).

II. Results from the SurveyMonkey surveys not divided between the main university types

Some of the questions asked in the SurveyMonkey surveys did not yield results that made a noticeable distinction between practices and opinions at Russell Group and non-Russell Group universities. Therefore, the analysis of these questions has not been divided between the two groups.

Metrics

Figure 8, below, illustrates responses to the question ‘Do you have metrics in place to measure the effectiveness of pedagogical methods?’

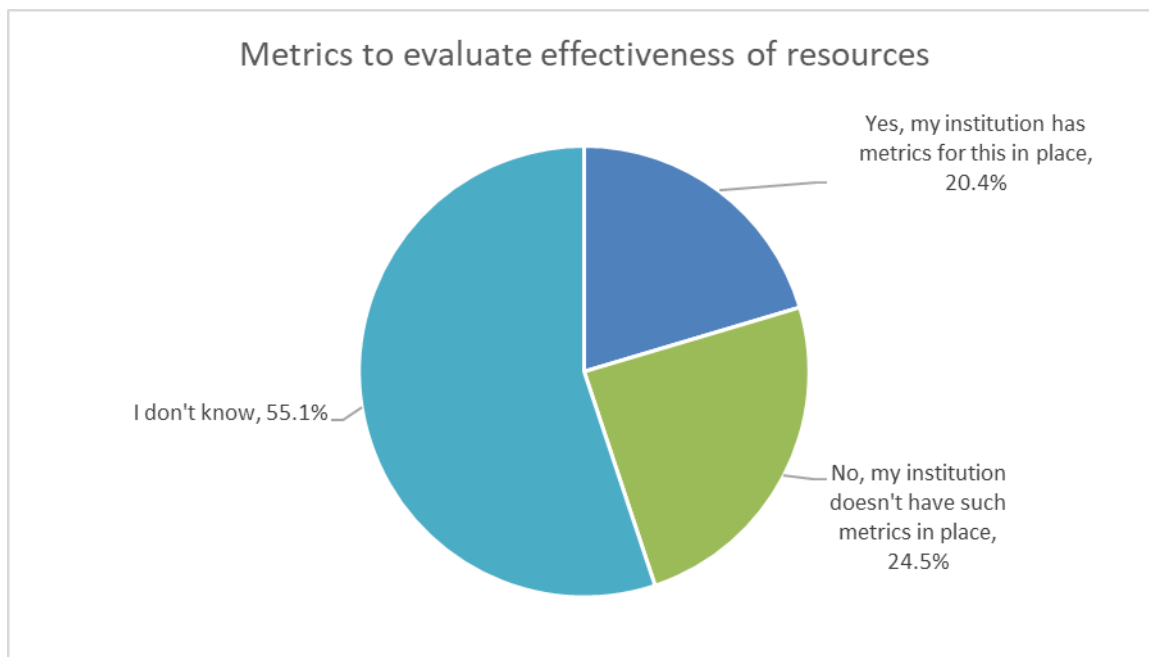


Figure 8: Metrics for effectiveness of resources

The question was asked of the librarians only. Those who said their institution did have such measures in place were also asked to describe briefly how these were collected and presented. Of the respondents who replied to the question¹¹, 55% didn't know the answer. 25% said their institution didn't have such metrics in place and 20% said it did. Most of the latter also offered some description of these metrics: six mentioned surveys conducted by the library; four mentioned metrics embedded within reading list software solutions; four mentioned analysis of the usage statistics available from online resources; two mentioned usage statistics available from their VLEs; one mentioned Google Analytics; and one mentioned statistics gathered from their own digitisation service.

Obviously, all librarians are familiar with the usage statistics offered by online resource providers, but, as one respondent pointed out, usage statistics do not of themselves demonstrate pedagogical effectiveness; they only demonstrate that a product or publication has been accessed. Statistics linked to reading list software illustrate a rather different point, connected more closely to the effectiveness of resource provision rather than the effectiveness

¹¹ 49 out of a possible 79.

of pedagogical approach. Reading list software enables academics and librarians both to spend library funds more effectively and to monitor the extent to which the resources recommended are used. Some librarians also say they encourage academics to use the software in conjunction with the library catalogue in order to recommend resources the library already holds, rather than obliging it to pay for new ones.

Availability of reading list software

Both the academics and the librarians who responded to the SurveyMonkey surveys were asked whether their institutions used a reading list software solution which provided direct links to resource materials. Figure 9 illustrates the responses.

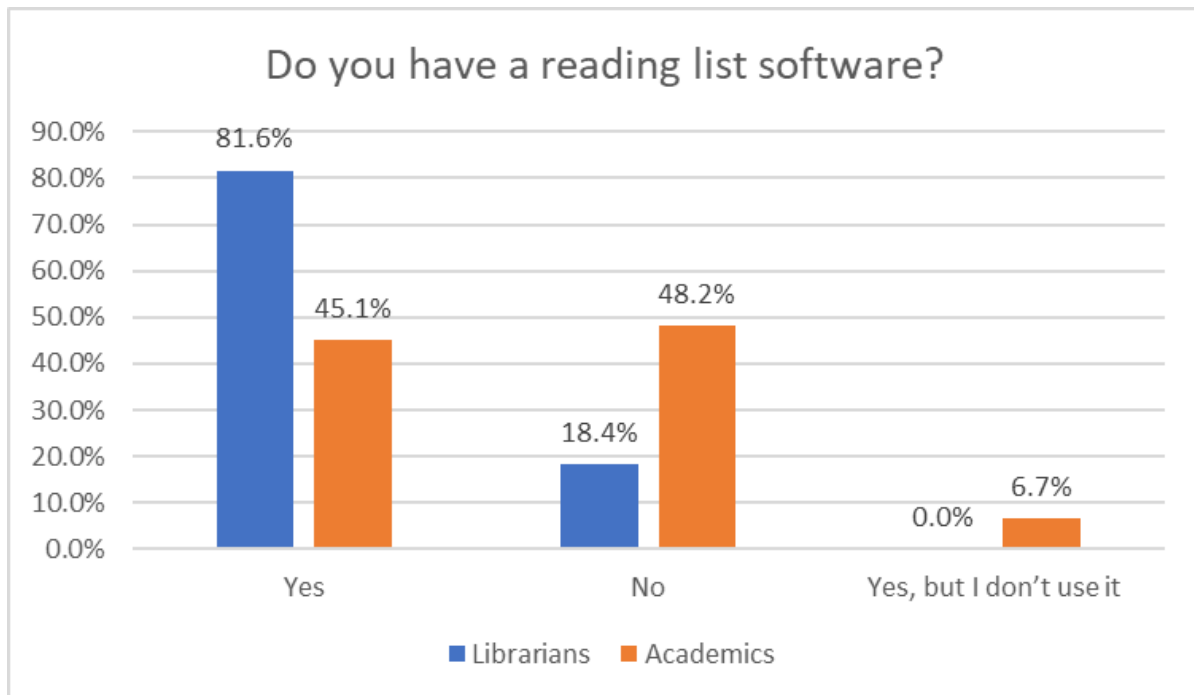


Figure 9: Use of reading list software

82% of the librarian respondents who replied¹² said their institution did use a reading list software solution; the remainder said it didn't. None said they didn't know the answer to the question. Of the academics who replied¹³, 45% said their institution did use a reading list software solution, 48% said it did not and 7% said the institution had such a solution but they personally didn't use it. Internal evidence also demonstrated that some of the academics who said their institution didn't have a reading list solution were mistaken about this: there was such a solution in place, but presumably they were unaware of it. (Academics who participated in the in-depth interviews were divided between those who appreciated the value of reading list software and those who considered it a nuisance or irrelevant. In either case, most said they depended on librarians to help them implement it.)

Reading list solutions are important tools in a period of rapid pedagogical resource change, for both the 'push' and 'pull' factors they embody. They have a significant impact on the length

¹² 49 out of a possible 79 responses were received to this question.

¹³ 313 out of a possible 399 responses were received to this question.

and make-up of the resource lists themselves and they demonstrate that librarians have an influence – and probably an increasing influence – on the actual resources chosen.

Summary Box 6

Metrics employed by librarians and the connection to reading list software

- Types of metric mentioned by the librarians included 'hard' counting facilities, such as the metrics embedded in reading list software, VLEs or their own digitisation services, and 'soft' information gathered from student surveys.
- Most online resources have embedded usage statistics (some are not very user-friendly and can be difficult to interpret) but they only demonstrate that a resource has been accessed, not how useful it is deemed by the user. (Some aggregators offer a refinement to the basic usage statistics which measures either length of time spent on the resource by the user or numbers of pages accessed.)
- Metrics connected to reading list software enable academics to see whether the resources they have recommended are being used and librarians to target budget expenditure more effectively.
- Some librarians use reading list software to steer academics towards resources already held, rather than buying new ones – an example of direct influence from the Library.
- Not all academics use reading list software, even if the university has invested in it.
- Academics are typically heavily dependent on librarians' help if they do use it.

Resources included in reading lists

All three main stakeholder groups – librarians, academics and students – were asked how pedagogical resources were represented in resource lists. Figure 10 illustrates their replies.

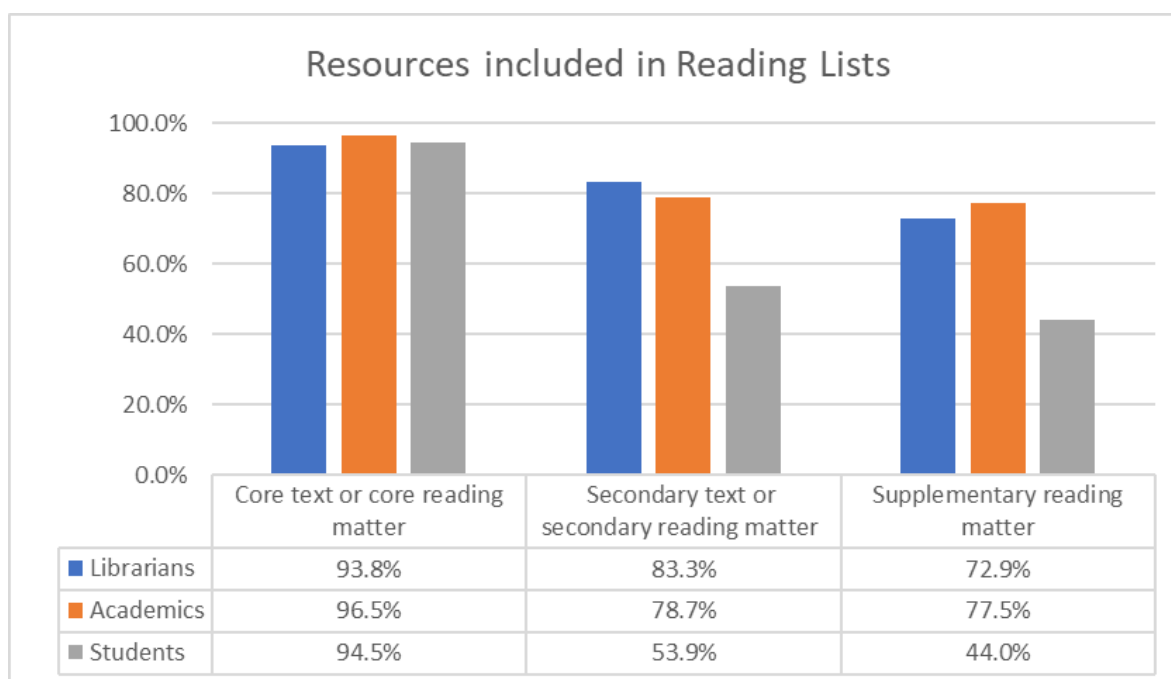


Figure 10: Resources included in Reading Lists

Surprisingly, a significant number of respondents skipped the question¹⁴. Of those who replied, more than 90% in each group said that core resource materials or core reading matter was indicated. Most of the librarians and academics (between 73% and 83% respectively) also said that secondary texts and supplementary reading matter were indicated. However, only 54% of the students said that secondary reading texts were indicated and 44% of them said that supplementary resource materials were indicated.

Students who took part in the focus groups became forceful when expressing their views on the length of reading lists. For example, highly-motivated student focus group participants at a Russell Group university of world-class renown said that if the resource list was more than two pages long, they 'just gave up'. Librarians taking part in in-depth interviews likewise criticised long reading lists ('some are bibliographies rather than reading lists'; 'some academics are lazy: they just keep on adding to the reading lists they used themselves when they were students'); the sub-text underlying the librarians' comments is concern about both the cost of and access to resources. Catering for long resource lists is costly and often can't be squared with the library's budget. Providing access to out-of-print works (which most libraries will try to do if necessary) may prove impossible. Providing access to certain products, such as particular e-textbooks, which may be obtained only via challenging business models, may again not be possible owing to budgetary constraints. Above all, however, it became apparent during the in-depth interviews that it is the Library that takes the strain when students are baffled or overwhelmed by 'difficult' resource lists.

How long should an undergraduate resource list be?

It should be borne in mind that four of the five disciplines which this report studies in depth (all except Nursing) belong to the Social Sciences, which are likely to generate longer resource lists than STM subjects because academics in these subjects seek to present the student with a variety of viewpoints. Taking this into account, the SurveyMonkey surveys still demonstrated

¹⁴ 48 out of a possible 79 librarians responded; 315 out of a possible 399 academics; and 91 out of a possible 188 students.

a wide spectrum of opinions on the desirable length of a resource list. The question on whether a long reading list or a short list containing a few very clearly-defined texts was preferred was asked of both the students and the academics. 315 of the academics and 92 of the student respondents answered the question¹⁵. Figure 11 illustrates the responses.

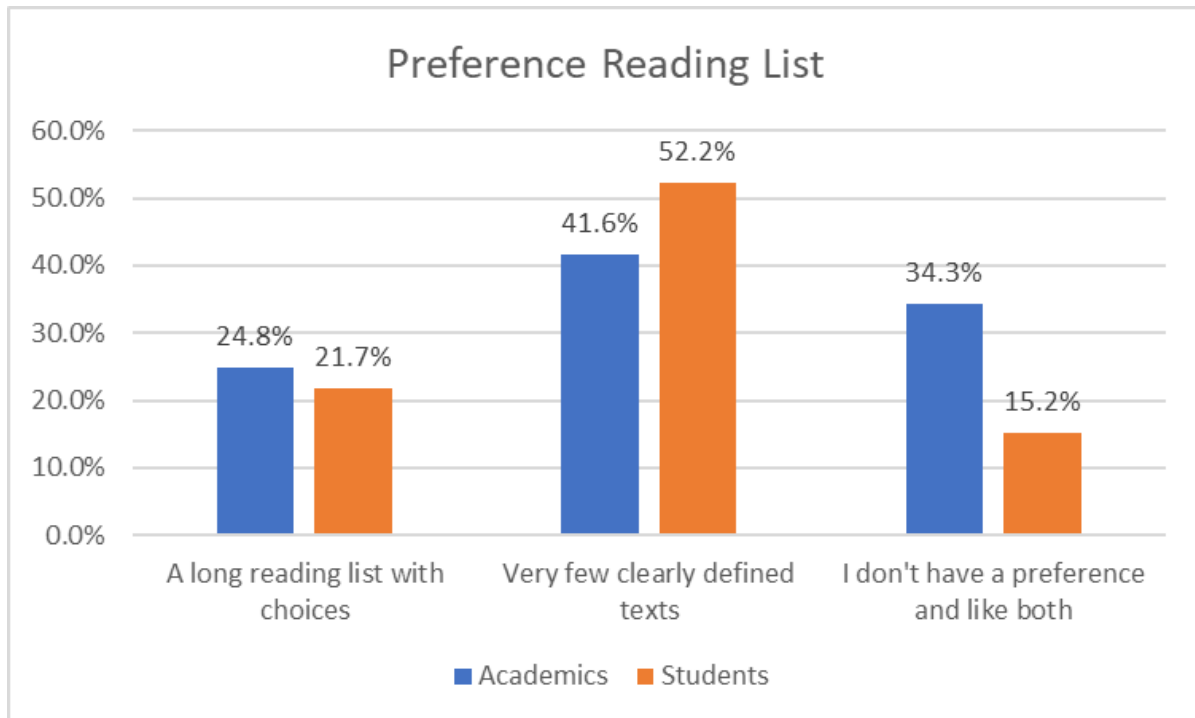


Figure 11: Preference length of Reading Lists

25% of the academics and 22% of the students said they preferred a long reading list with a choice of resources for each topic covered. 42% of the academics and 52% of the students said they preferred a short resources list containing a few very clearly-defined texts. 34% of the academics and 15% of the students said they had no preference.

157 of the academics and 10 of the students offered additional information to explain their stance on this. Most of the academics said they offered one or two core readings and then additional readings (which obviously varied extensively in number between academics). Some said that providing a short reading list was university policy whereas others said that they chose short reading lists to comply with student preference. It was a recurring observation that students might be overwhelmed by reading lists that are too long and, as already mentioned, the students who took part in the focus groups themselves said this. Disappointingly, perhaps, some of the academics interviewed were scathing about their students' powers of concentration and said that short reading lists were all that students could cope with 'these days'. Conversely, several academics said that resource lists were short because they were intended to act only as a kind of starter-pack, or jumping-off ground, from which students could then engage in their own literature searches and discover their own routes to mastering the topic. Some of the focus group students acknowledged this approach as being useful and appealing to them. Three academics said their lists were long to try to accommodate different learning styles. Those students who commented mainly favoured longer reading lists, again, because this helped them to find resources that suited their own learning styles or because they liked to read around the subject (they did not seem to connect this with finding more

¹⁵ 84 academics and 16 students skipped it.

information for themselves). Those who favoured shorter reading lists expanded on this by saying they wanted clarity on what was needed for assessments and cited time constraints and 'information overload' (this from a Nursing student) for not wanting resource lists to be longer.

Comments from the librarians suggested that they try to steer a middle course, but on balance they too favour shorter reading lists – not just because it enables the Library to target resource provision more effectively, but also because they witness first hand the bewilderment of students when introduced to too much 'stuff'. Format of resources is an issue too. Most academic libraries offer information literacy training courses; in a minority of universities these are either obligatory or formalised, enabling the participating student to gain up to a half-credit towards his or her degree by taking the course. Given the numbers of electronic databases now held by libraries – a medium-sized university library in the UK may hold more than 200 – and the variety of their functionality, such training is indispensable, even now that searches are being made easier by the implementation of discovery software. But it's not just the technology that baffles students¹⁶, some find traditional scholarly publishing formats challenging, especially during their first year at university. Several of the focus group students from one of the Russell Group universities said they had really struggled with journal articles because they didn't know how to read them¹⁷ ('It is massive going into the first year from AS levels, especially tackling journal articles.') A fourth-year Business student who participated in this focus group said that eventually her tutor had taught her how to read a journal article: it was a 'transforming' experience.

When it comes to resource deployment, rather than resource recommendation, librarians probably understand student capabilities and preferences better than academics. They also frequently need to coach the academics themselves in how to use 'non-traditional' – i.e., not printed – resources.

Summary Box 7

The nature of resource/Reading Lists and user resource management

- Core resource materials are usually indicated on resource/reading lists.
- Librarians and academics say secondary texts and supplementary materials are often indicated; students say they are sometimes indicated.
- Librarians and students broadly agree that long reading lists are off-putting.
- Most academics say that students find it easier to cope with shorter reading lists and that these encourage students to discover further information for themselves.
- A minority of academics say long reading lists are useful because they accommodate a variety of learning styles; a minority of students agree.
- Students need help from librarians to negotiate electronic learning resources and may also find some traditional academic formats – e.g., the journal article – challenging.

¹⁶ As an aside, anyone who has observed academic librarians patiently trying to explain electronic resources to students will understand that not all the 'Millennium Generation' is IT literate.

¹⁷ In particular, first year students find the fact that journal articles cite previous work on the topic difficult to absorb.

Do librarians influence reading list choices?

Does this mean that librarians are able to influence academics' choice of pedagogical resources for undergraduate courses? Of the SurveyMonkey respondents, the academics and the librarians were asked this question. 292 academic respondents replied to the question and 107 skipped it. Figure 12 illustrates the academics' responses.

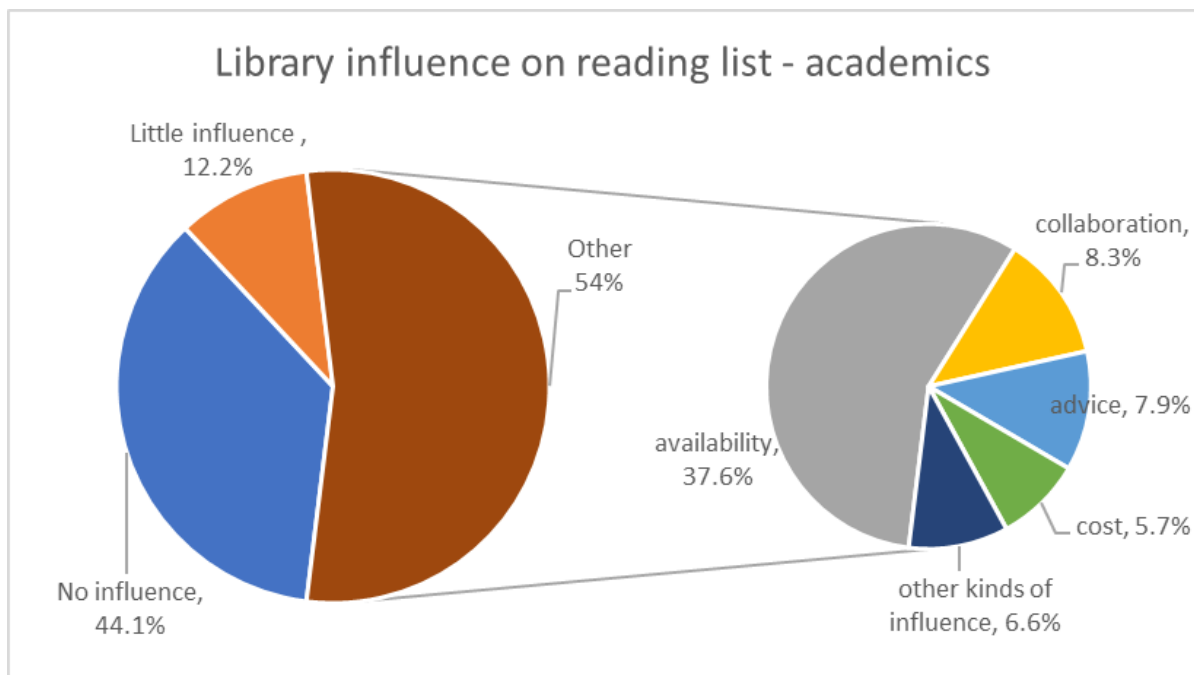


Figure 12: Library influence on Reading Lists – academics

54% of the academic respondents agreed that the Library had an influence on resource lists. 38% said the availability of titles in the Library influenced the reading list selections. 8% of the academics said they worked in close collaboration with the Library when compiling reading lists and 8% also said they welcomed advice from librarians on new or alternative titles to include in reading lists. 6% said that budget constraints imposed upon the Library limited their choice of resource list titles. The Library's great value in providing support for both academics and students was widely acknowledged, both by the academics who added comments to the survey and by those who took part in the in-depth interviews. The focus group students all liked librarians.

The librarians themselves underestimated their influence on resource lists when compared with the academics. Of the SurveyMonkey respondents, the librarians alone were asked what the role of the Library was with respect to reading lists. Figure 13 illustrates the responses. (49 librarian respondents answered the question and 30 skipped it.)

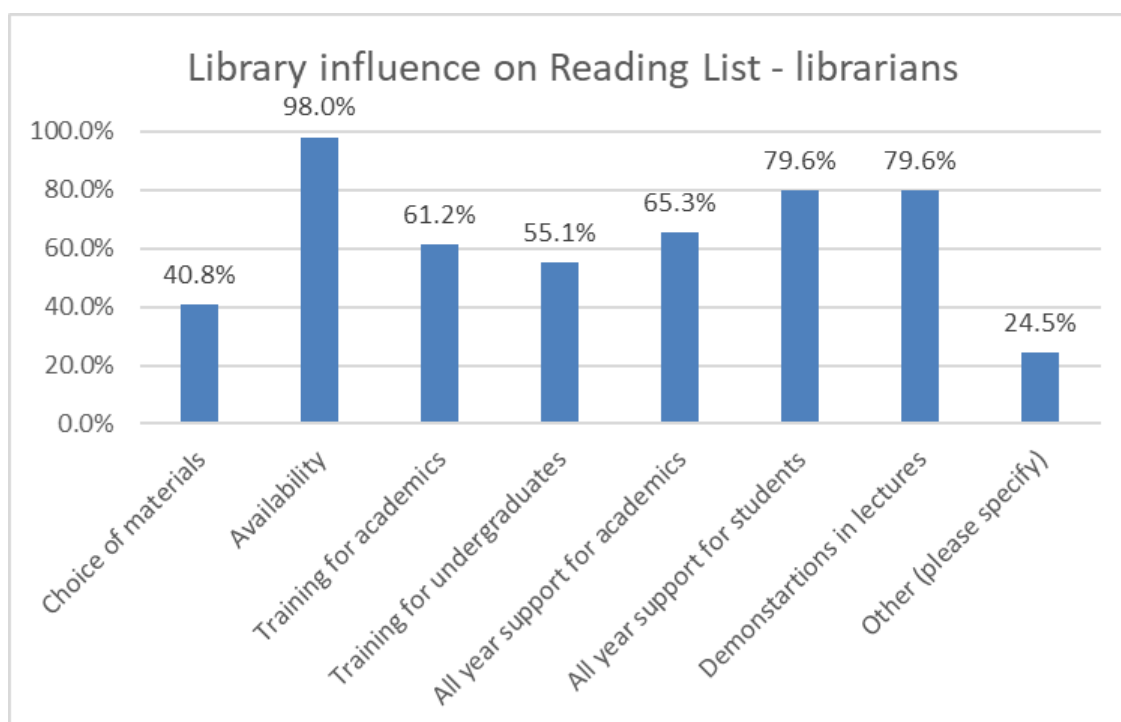


Figure 13: Library influence on Reading Lists – librarians

Only 41% of the librarians (vs 54% of the academics) believed librarians had a direct influence on academics' choice of reading list materials. 98% agreed that they worked with academics to ensure that reading list materials were available in the Library. Their replies also revealed the extent of their support work: for example, 80% said they participated in lectures by demonstrating resources while students were being taught.

Taking all these results together, it is not unreasonable to suggest that, despite their own modest estimations of their influence, over time librarians have the greatest influence over undergraduate learning resources of any stakeholder group, for the following reasons:

- Librarians train academics and students in the use of electronic learning resources.
- Electronic resources will not be used unless patrons understand how to use them.
- Librarians monitor usage carefully: they will cancel resources that are not being used.
- Librarians assist academics when placing learning resources in reading list software solutions.
- Librarians encourage academics to recommend learning resources already held by the Library when possible. Academics conscious of budgetary constraints seem willing to do this.
- If the Library cannot afford resources specified by academics, or considers them too expensive, librarians will suggest alternatives.
- More than half the academics surveyed agreed that librarians influence their choice of resources.
- Students will ask librarians for help if they cannot find or access the resources they need.

Students, however, also exercise considerable power over resource provision. One example that stands out is that at one of the in-depth universities, that was a very early adopter of digital resources, even librarians who have been committed for many years to 'e-first' resources are now bowing to student pressure to buy more print textbooks. And at more than one institution where prospective students have been promised 'no hidden costs' after they have paid tuition

fees, the Library has been obliged to honour this promise by paying for print textbooks¹⁸ – even though individual students may show a willingness to invest in at least some of the resources themselves.

Summary Box 8

Librarian and student influences on resource choice

- More academics agree than don't agree that librarians influence resource choices.
- Minorities of academics say they work closely with the Library when compiling resource lists/value advice from librarians/are influenced when making choices by librarians' budgetary constraints.
- Librarians agree they work with academics to ensure resource list materials are available.
- Most librarians actively engage in demonstrating resources to students, often during lectures.
- Librarians tend to underestimate their influence on resource choices.
- There is evidence librarians hold the key to resource choice: 'virtuous circle'. Librarians give training in resource use > monitor usage (and cancel under-used items) > upload resource information to reading list software > encourage academics to recommend existing library holdings/suggest alternatives to 'expensive' items > sometimes directly influence resources chosen.
- Students are able to exercise more power over the resource formats offered to them than formerly – e.g., if students express a preference for print, even a library with an 'e-first' policy is likely to invest more in print.

III. Evidence of resources actually used

Librarians are gathering statistics about resource use in a variety of ways (for example, via reading list software, their own library systems and from the data supplied by publishers and aggregators); this is discussed in the preceding section. The statistics below were provided by the library at an English university (named here 'University Y') which consistently achieves first-quartile ranking in the university league tables and is consistently ranked among the top ten UK universities for the quality of student experience it provides. It scored Gold in the first TEF round. Approximately 15,000 undergraduates attend the university, together with approximately 3,000 taught postgraduates and 1,000 postgraduates engaged in research. It has approximately 1,400 academic staff. (These figures have been rounded up to protect its anonymity.) University Y therefore has approximately 20,000 potential library users (not counting non-academic support staff, who may also use the Library if they wish) and clearly

¹⁸ Not usually one book per student, however. Some libraries adopt a formulaic approach – e.g., they will buy a maximum of ten textbooks per cohort or sometimes one book per ten students. Students wishing to have permanent use of a print textbook, therefore, still need to buy their own.

almost all are registered with the Library. The metrics it employs do not enable it to identify different types of library patron.

Figure 14, below, shows that the library user population peaked in 2015/2016, when 19,600 different patrons used the Library. This figure dropped in each of the consecutive two years, but in 2017/2018 there were still 19,200 library patrons, the lower figure probably attributable to fluctuation in numbers of potential users. The charts which follow Figure 14 are therefore likely to give an accurate picture of overall resource use at the university.

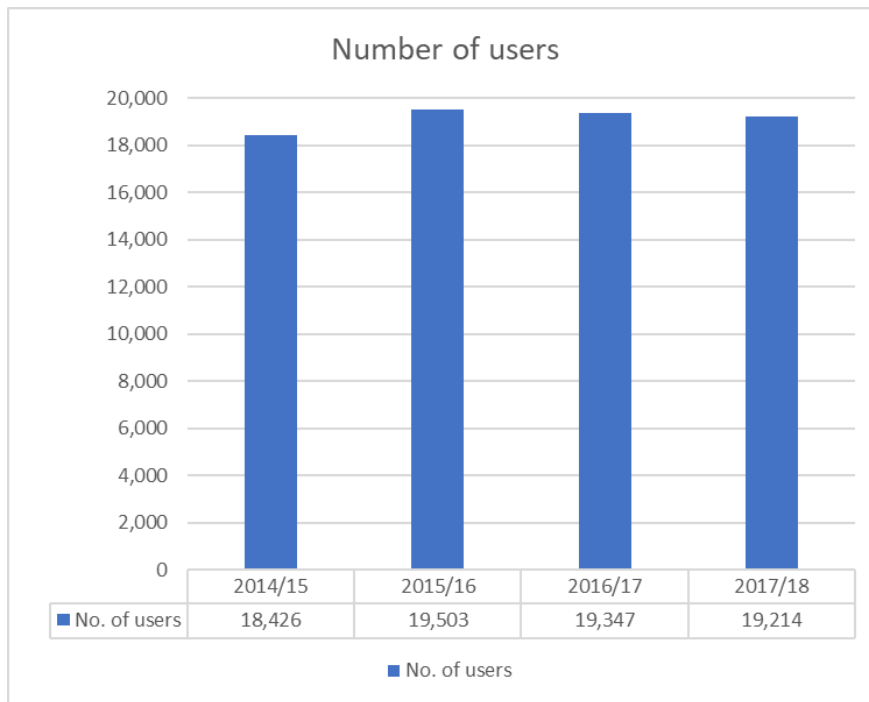


Figure 14: University stats – number of users

Figure 15 shows the number of physical visits to the Library, i.e., to the actual building. These have steadily increased between 2014 and 2018. In the academic year 2017/2018, there were on average 66 visits per user, an increase from 56 visits in 2014/15. Given the decrease in loans (see Figure 16 below), this probably indicates the increased demands made on the Library to provide more study space. As this study demonstrates, more students go to the Library to work and study than in the past, even though they might be making use of digital resources, rather than print resources, while there.

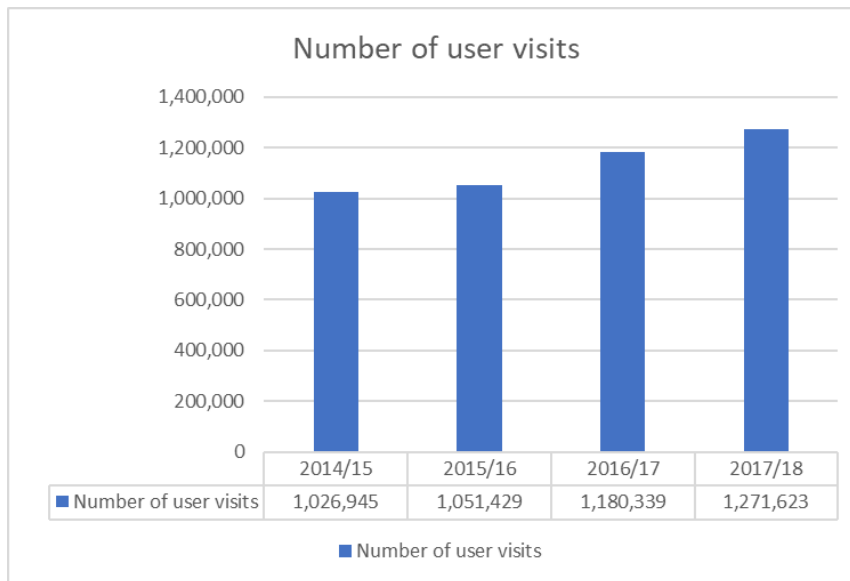


Figure 15: University stats – number of user visits

Figure 16 tracks the numbers of loans from the Library's print resources during the same period. The total number of items loaned has decreased from almost 120,000 to approximately 75,000 in the period 2014–2018.

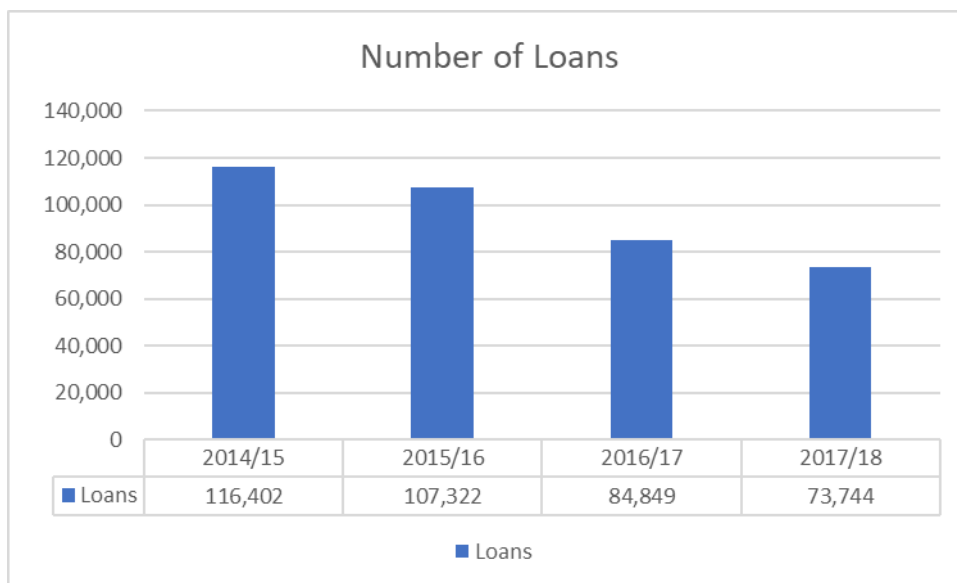


Figure 16: University stats – number of loans

Figure 17 shows what this means per user and compares it with the electronic downloads. Whilst downloads per user have plateaued at around 300, the number of loans per user has steadily declined from 6.3 to 3.8 in the past 4 years.

The difference in numbers is remarkable, though it should be taken into account that print loans are usually more carefully chosen than online material, which may be easily browsed; print borrowers will have looked at and evaluated the books in the library before having decided to borrow them, while decisions to download are often made quickly and it is only afterwards, on close inspection, that the choice is deemed unsuitable (see Figure 21 to Figure 24 from aggregator below) and the resource discarded. Furthermore, for library loans the units counted are usually books, while for downloads the counts are made on a per-chapter basis. This means a book with six chapters relevant to the borrower's needs will be recorded as one loan in the table, but if accessed in e-book format it will be counted as six downloads.

The above statistics also do not take into account that a high percentage of electronic downloads are journals articles, which are no longer likely to have a print equivalent (print journals are not routinely stocked by UK libraries except when print is the only format available and in such an instance the journal often cannot be borrowed, but has to be used on the Library premises).

For the reasons given above, an accurate direct comparison of numbers cannot be made, but the general trend of these figures – especially the decline in numbers of loans – is certainly both noteworthy and relevant to the study. It does not, however, demonstrate that print is not appreciated or that money spent on print items does not deliver good value.

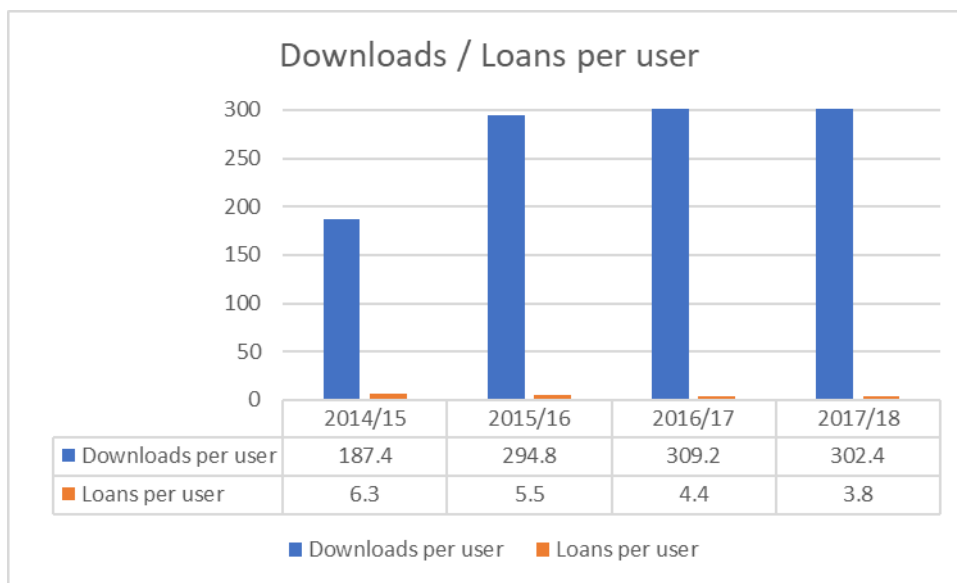


Figure 17: University stats – downloads/loans per user

Another important factor for libraries when evaluating usage is the cost per use. Figure 18 compares this factor for loans and downloads. Although there is a big discrepancy in cost between print loans and electronic downloads, the factors mentioned above still apply – particularly the fact that a print loan is more likely to contain more content relevant to the user's needs than an electronic download and that one loan often contains several 'useful' chapters, which would be counted as several downloads – each one helping to reduce the per-unit cost – had the content been accessed electronically.

However, the statistical evidence over time shows an indisputable shift towards electronic resources becoming 'cheaper'. It is particularly worth noting that while the cost per electronic download figure has stabilised, the cost per print loan has doubled in the period 2014 to 2018.

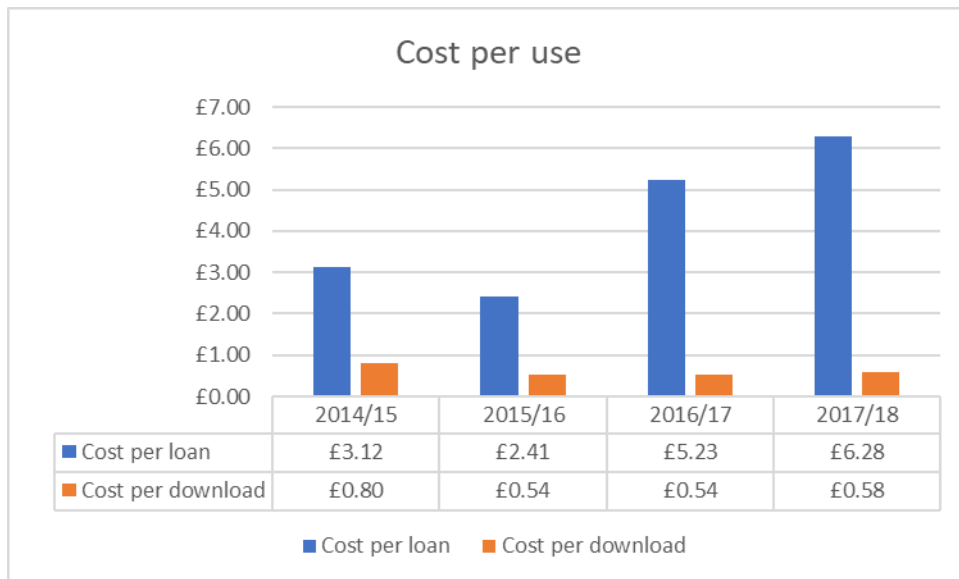


Figure 18: University stats – cost per use

Most librarians who took part in the study said that the budgets are heavily affected by pre-decided top-slicing of journals content, which often takes up the vast majority of a library's acquisition budget. Figure 19 and Figure 20 illustrate what this looks like in the case of University Y (and is no doubt similar at other universities).

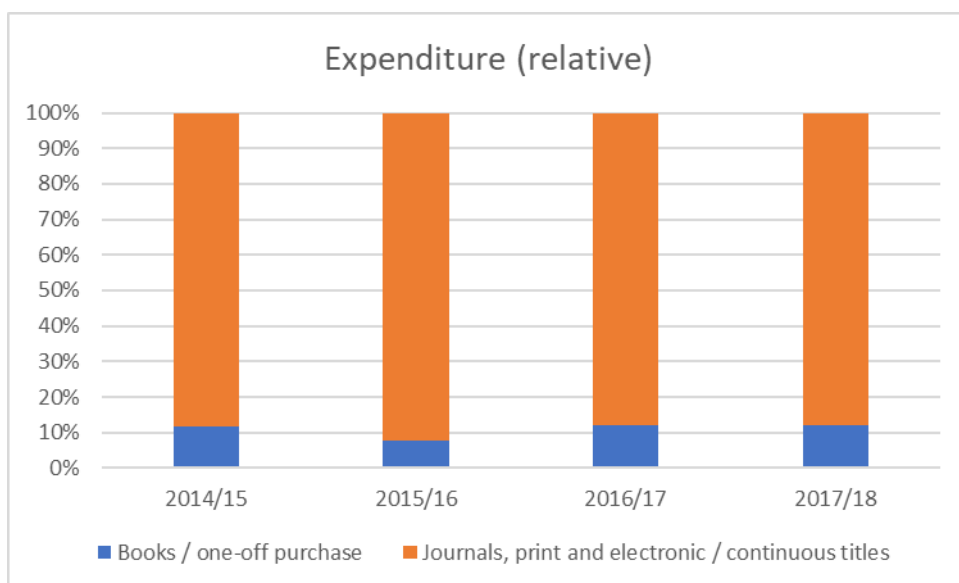


Figure 19: University stats – expenditure (relative)

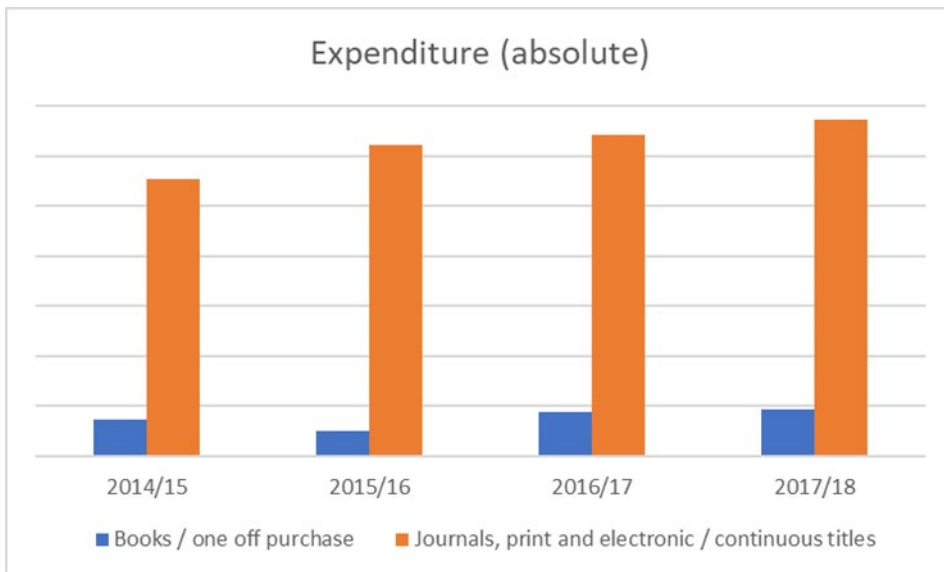


Figure 20: University stats – expenditure (absolute) ¹⁹

Summary Box 9

Resources actually used and cost, University Y

- Physical visits to the Library increased between 2014 and 2018 to an average of 66 visits per user per year in the final year recorded.
- Loans of print items fell from 6.3 to 3.8 per user in the same period.
- Downloads per user have plateaued at around 300.

It is important to note:

- Accurate comparisons between print and electronic are not possible because:
 - Books chosen for loan have been more carefully selected.
 - The user might use several chapters of a print book and this counts as one loan, whereas downloads are counted on a per-chapter basis.
 - Even if users would have preferred print journal articles, they are no longer available from University Y for most journals and the figures don't show how many articles accessed electronically have been printed out.
- Bearing this in mind:
 - Cost per electronic download has stabilised at £0.58, having reached its highest point at £0.80 in 2014–2015.
 - Cost per loan has almost doubled in the same period, rising from £2.12 in 2014–2015 to £6.28 in 2017–2018.

¹⁹ This graph does not give any figures along the y-axis for confidentiality reasons. The university has been promised that no absolute figures will get published.

IV. Statistics from an aggregator (Aggregator A)

More granular information can be gathered from the statistics provided by a single aggregator, here called Aggregator A.

Reading

The charts below indicate average pages read and in-depth studying per student over a twelve-month period for this aggregator, which hosts a broad range of e-books (primarily e-textbooks) from a variety of academic publishing houses. The figures have been provided for the five social science subjects on which the study focused. They are illustrated by Figure 21 below.

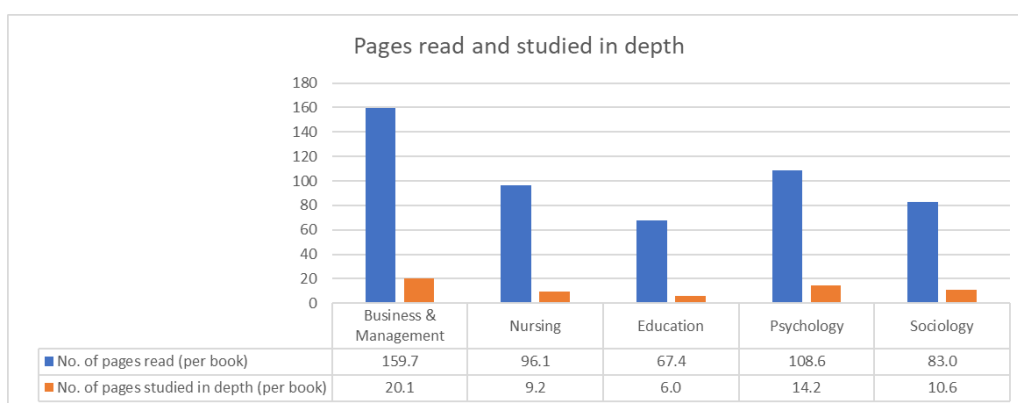


Figure 21: Aggregator stats – pages read and studied in depth

The aggregator is able to measure ‘active use’²⁰ of a resource, which is a useful tool for the comparison of user behaviour by subject.

Figure 21 illustrates the numbers of pages read versus in-depth studying per student per book. It demonstrates that there is considerable variation in the numbers of pages read per student for each subject – on average, Business and Management students access more than twice as many pages from the aggregator’s online books than Education students (160 versus 67); but what is more striking is the relatively low numbers of pages having been studied in depth. Again, Business and Management students study more pages in depth – on average, 20 – but the averages for the other subjects vary only from 6% (Education) to 14% (Psychology). This suggests that all the students who accessed these books, across all five subjects, only found a relatively small proportion of information suitable for their needs to study in depth.

Printing, downloads and annotations per student (percentage of pages read)

Assuming that all downloaded content follows the same pattern, the numbers of downloads/costs per downloads at University Y can be viewed in rather a different light from their face value.

²⁰ ‘Active use’ is defined as a page having been highlighted, annotations having been made or a reader having remained on a page for a long period of time.

Figure 22 illustrates that Sociology students are more likely to print/copy the content read to work with the texts offline, while Psychology students prefer to use online annotation facilities. The numbers of downloads are relatively even across the subjects (it should be added that the aggregator's platform allows users to read, annotate and print directly from the site without the need to download the content). It should also be noted that printing, downloads and annotations per book across all subjects are extremely small.

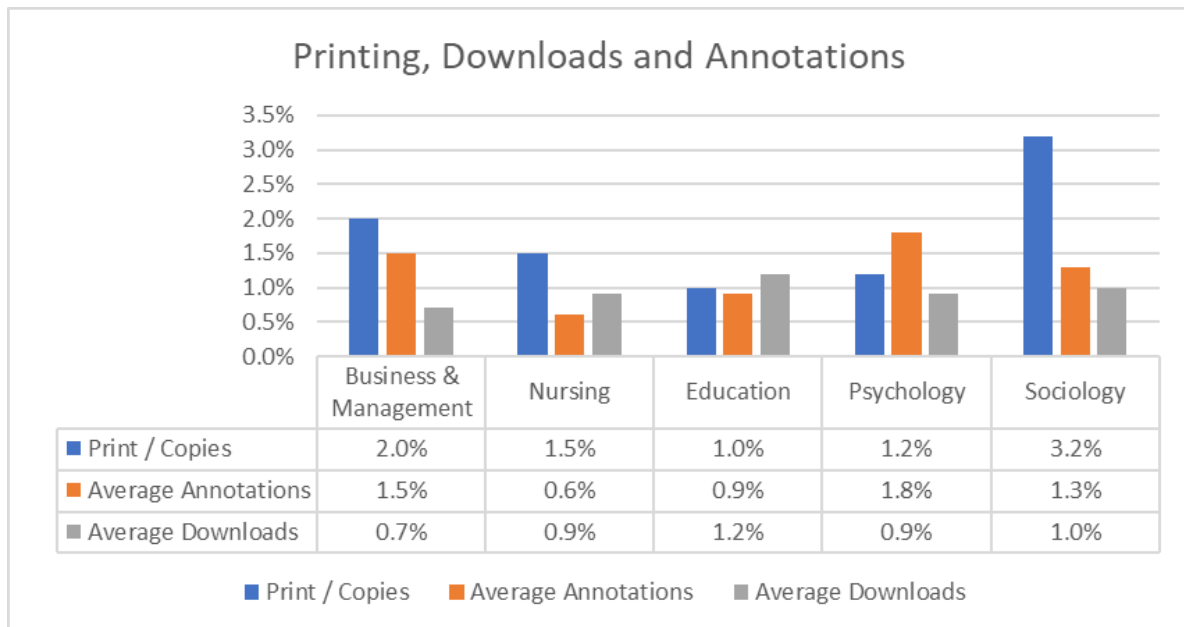


Figure 22: Aggregator stats – printing, downloads, annotations

Format/reader used when accessing content

Another indicator of user behaviour is the kind of format readers use when accessing the content. Figure 23 shows that around 50% of users prefer to use the web reader on the aggregator's platform and about a quarter access the content via an Apple mobile device (iPad or iPhone). Education students seem to be the biggest Apple users, while Nursing students seem to prefer Android. Overall, it can be said that, particularly for these two subjects – both are disciplines in which students spend a lot of time on placements – mobile devices play a big role in allowing them to access the content.

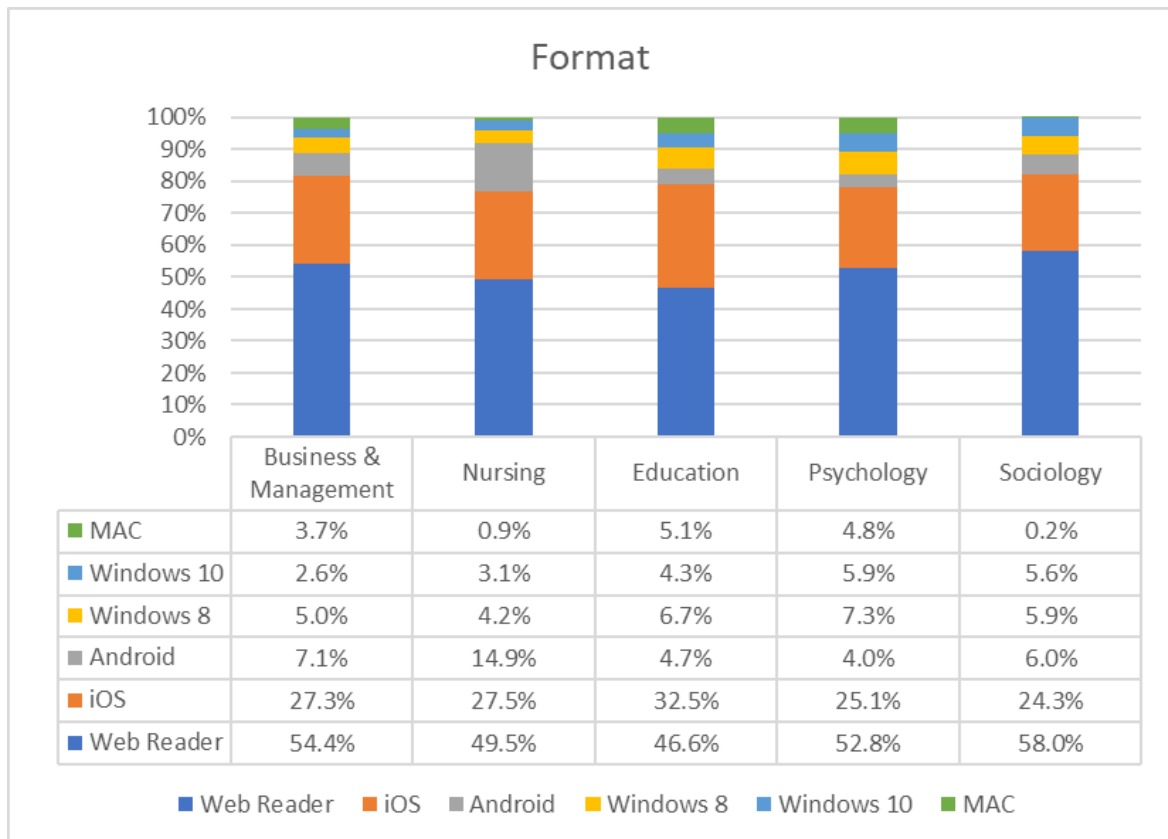


Figure 23: Aggregator stats – format

Usage online/offline

The distinction becomes yet clearer when the online/offline use of the content is examined. Although it can broadly be said that the split is half and half, Education and Nursing students are more likely to use the content offline; conversely, nearly 60% of Sociology students accessing content from this aggregator obtained it online. This is illustrated in Figure 24.

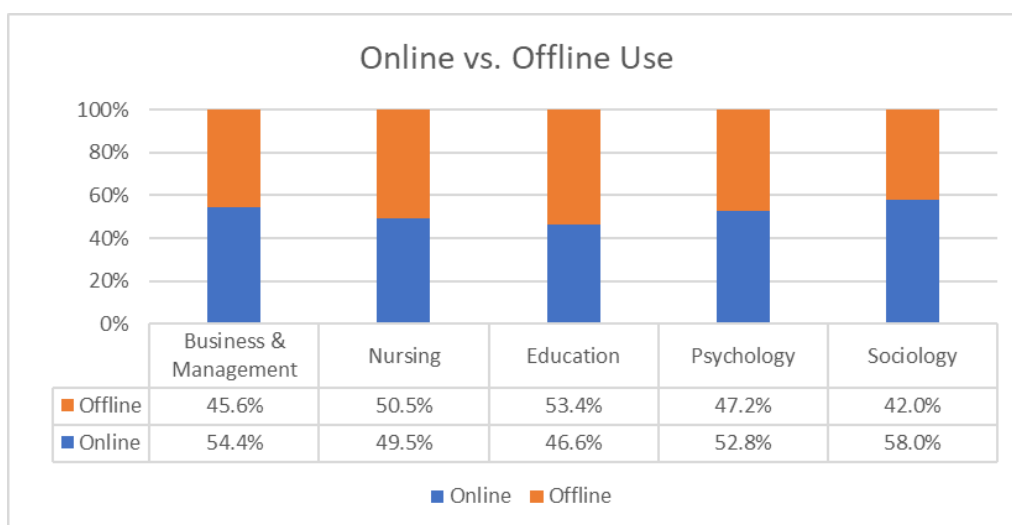


Figure 24: Aggregator stats – online vs. offline

Summary Box 10**How resources are used, Aggregator A**

- Average number of pages **viewed** per e-book varies from 160 (Business and Management) to 67 (Education).
- Average number of pages **read** per e-book varies only from 20 (Business and Management) to 6 (Education).
- There is some variation between disciplines in the amount of printing, downloading and annotation carried out, but across all subjects the percentages per e-book are very small.
- About 50% of users use the web reader on the aggregator's platform and about 25% use an Apple mobile device.
- For students frequently on placements – e.g., in Education and Nursing – mobile devices play a big role in providing access to content.
- Education and Nursing students are also more likely to use content offline.

V. External factors in the choice and deployment of pedagogical resources

What can be deduced from this rich picture of the internal and external HE teaching environment? Perhaps a good place to start is the extraordinarily high percentage of librarians and academics across both types of university who cite 'changing student expectations' as an influencing factor on teaching. What are these changing student expectations? A sobering number of the academics taking part in the in-depth interviews said there was a link in students' minds between paying tuition fees and obtaining a good grade – as if they believed they were paying for the grade itself, rather than the tuition. Others said that students had little conception of the cost of the other services they receive and therefore they consider tuition fees to be 'expensive'²¹.

As already mentioned, whether or not students themselves are willing to pay for some of the resources they use, at most universities politics dictate that they should not be required to do so. The librarians who were interviewed in depth were almost all worried about how to cope with declining or static²² library budgets and, at Russell Group universities particularly, the constant pressures put on them to resource both research and teaching effectively but with less money.

A further factor which emerged from the in-depth interviews was the question of academic tenure²³. Academics who don't have tenure are often poorly paid and not properly rewarded

²¹ It has to be said that both the government and the universities have laid themselves open to this misconception by using the term 'tuition fees' instead of something more all-encompassing – e.g., 'university fees'.

²² A static library budget has historically been a declining budget in real terms – although new business models, such as Evidence-Based Acquisition, currently being introduced by publishers to supersede the 'Big Deal' and the now widespread use of reading list software help librarians to target resource acquisition with greater accuracy.

²³ 'The way teaching staff are being treated is awful: I personally am on two part-time contracts and so are many of my colleagues. Teaching Assistants are on very poorly paid zero-hour contracts, and they are qualified PhDs! For a one-hour seminar, I get paid for 30 minutes preparation, which is a joke. If you want to be innovative and flexible, there is no way you can prepare a lecture in that time.' [Sociology lecturer, Russell Group University]. A future study of the economics of

for lecture preparation time and marking. Even academics who have tenure are often required to teach very large cohorts of students, particularly of students in their first year. With or without tenure, at most universities the path to academic career preferment lies in publishing in learned journals; yet there is pressure to deliver consistently good teaching too, often as well as shouldering a considerable burden of administration²⁴.

Students themselves may or may not be changing in terms of their innate ability (as already mentioned, some of the academics interviewed asserted that today's students are 'less able'), but it is an incontrovertible fact that their educational background differs from that of any generation of students before them. 'Generation Z' students, those born after 1995 (and into the early 2000s), are the first generation to have been taught from primary school years using technological applications and electronically interactive learning techniques. Until recently, secondary schools were certainly more advanced than universities in their deployment of such methods. Whether this means that 'students no longer like reading' or 'have shorter attention spans', as some of the academics who took part in the in-depth interviews asserted, modern students expect to be introduced to a wider range of types of learning resource than their predecessors. As the findings from the surveys show, universities are adapting to accommodate this expectation, albeit at differing rates of speed.

Taking all these factors into account – the pressure on library budgets, the pressure on academic time, the marked change in the educational process that has preceded students' entry to universities – it is inevitable that new pedagogical approaches have been developed to try to address all these issues and match student expectations regarding the quality of the education they are paying for.

university finances, particularly as they relate to academic appointments and student cohort numbers, would help to throw further light on this issue.

²⁴ 'There's a constant pressure to get things right, which means keeping on responding to different new trends. This increases every year. It includes things like timetabling, which senior management get involved in if there are difficulties, without really understanding the implications. We get comments from on high, such as "Your module needs more employability skills", etc. What do they mean by this? The demands of this kind of additional work don't match the terms of our contracts Although it keeps changing focus, the university is determined to be recognised for research. It's drawing up a list of people who don't publish. It looks at the quality of research output too now. It wants journal articles from academics to be rated 3* plus, but only Russell Group academics can achieve this regularly. It's very confusing – our contracts now relate to different levels of research. I must admit, I'm disheartened. I work hard to increase the quality of my output and I publish in international journals with good ratings, but their impact factors are often just below 3*. I feel that whatever I do is not good enough.' [Psychology lecturer, post-1992 university]

Summary Box 11**External factors affecting choice and deployment of pedagogical resources**

- Of all external variables discussed by academics and librarians, changing student expectations was the most-cited influence for change.
 - Some students erroneously link payment of fees to 'paying for' good grades.
 - Students don't understand costs of university services they receive overall.
- University politics often dictate that students should not be expected to pay for resources even if willing to do so.
- An increasing number of academics don't hold tenure. Publishing learned articles is still the chief route to academic preferment, but there is now more pressure on academics to deliver consistently good teaching and shoulder a considerable administrative burden as well.
- 'Generation Z' have throughout their educational careers been taught using electronic teaching aids and expect this at HE level. (Jury is out on whether this also affects their attention spans/ability to read for any length of time.)

VI. Flipped learning

Since the millennium, but accelerating in frequency of use and recognised importance, flipped learning or the flipped classroom has become one of the most important pedagogical trends in HE, both in the UK and elsewhere. It seeks to address some of the issues mentioned above and promotes dynamic, rather than passive, learning by encouraging the student to take more responsibility for his or her education. Among its key tenets are the requirement for students to attend classes already prepared to some extent on the topic to be covered; using class time, including lecturer contact time, in a more targeted and interactive way; and deploying assessment techniques that enable the lecturer to identify students' strengths and weaknesses and to focus on improving the latter. There is, however, no single absolute or universally recognised definition of flipped learning. McNally et al. and Chipperfield (2017) have offered a working definition that seems to embrace the main tenets of the pedagogy as supported by most of the authors who write about it:

Key elements of what constitutes a flipped classroom include (a) an opportunity for students to gain exposure to content prior to class (e.g., recorded lectures), (b) an incentive for students to prepare for class (e.g., pre-class quizzes), (c) a mechanism to assess student understanding (e.g., graded pre-class quizzes) and (d) in-class activities that focus on higher-level cognitive activities involving active learning, peer learning, and/or problem solving [it may include] ... events that have typically and traditionally happened inside the "classroom" (e.g. lectures) [even if they have actually occurred outside the "classroom"]²⁵.

²⁵ McNally, B., Chipperfield, J., Dorsett, P., del Fabbro, L., Frommolt, V., Goetz, S., Lewohl, J., Molineux, M., Pearson, A., Reddan, G., Roiko, A. and Rung, A. (2017) 'Flipped classroom experiences: student preferences in a higher education context.' *Higher Education: The International Journal of Higher Education Research*, 73(2), 281–298. Available at: <https://link.springer.com/article/10.1007%2Fs10734-016-0014-z> (Accessed 6 November 2018).

Bishop and Verleger (2013)²⁶ assembled the most comprehensive survey of research on flipped learning up to the point at which they published. McNally and Chipperfield conclude that flipped learning should not all be about ‘action learning’ – that a theoretical element should be introduced into a course to prevent resistance to what might be perceived as an overly radical approach. Research carried out more recently, notably in *Compass* and *JEIPC*²⁷, which were the two Greenwich journals mentioned in the Introduction and for which several links are provided in the Reference List, bring current thinking up to date²⁸. Strayer (2012)²⁹ described the flipped classroom as representing a type of blended learning, and since then a considerable technological element has been included in almost all studies on this pedagogy, to the extent that it has become virtually definitive.

Further modifications to flipped learning have included team-teaching experiments that have involved a larger than usual group of academics working together in the classroom to coach students in the use of sophisticated learning technologies (Della Sciucca and Fochi, 2016³⁰).

Whether the emphasis of flipped learning is on technology, ‘action’ learning or prior preparation undertaken to maximise the value and effectiveness of class time, all authors who have written on the subject agree that one of its key principles is indeed to encourage students to take responsibility for their own learning – ‘to think, not regurgitate’, as one of the in-depth respondents to the present survey expressed it.

Flipped learning, or some form of it, seemed to be taking place in all the departments at all the universities – both Russell Group and non-Russell Group – whose academics participated in the in-depth studies, even though not each individual academic professed to use it. There was little evidence that the TEF had acted as a catalyst to promote the trend; in most instances, the flipped learning approach to pedagogy had long pre-dated the introduction of the TEF, let alone the concept of subject TEF. Conversely, there was much evidence that concern about standards of teaching quality and how to improve it pre-existed the TEF and were not kick-started by fear that the TEF itself would bring reprisals.

Some differences between Russell Group and non-Russell Group universities towards flipped learning were noted, especially by those academics who had taught in both types of institution recently. An academic who had switched from a Russell Group to a non-Russell Group university said that flipped learning worked better for him in the latter because the classes were smaller; conversely, an academic who had switched from a non-Russell Group to a Russell Group university said that the Russell Group university students were much more likely to carry out the prep set in advance of class than non-Russell Group students, allowing more progress to be made in class by the former. A lecturer in midwifery at a post-1992 university said she had been employing a flipped-learning, technology-rich approach to teaching since the start of her career (which spanned some 12 years), but that it was important to gauge when the students had had enough of innovation and needed some straightforward

²⁶ Bishop, J. and Verleger, M.A. (2013) ‘*The flipped classroom: a survey of the research.*’ ASEE National Conference Proceedings. Atlanta, GA: American Society for Engineering Education.

²⁷ See <https://journals.gre.ac.uk/index.php/compass> and <https://journals.gre.ac.uk/index.php/JEIPC>. Both journals are Open Access publications.

²⁸ There has been a great deal of research on flipped learning published over the past four years; another comprehensive survey would therefore be timely.

²⁹ Strayer, J.F. (2012) ‘How learning in an inverted classroom influences co-operation, innovation and task orientation.’ *Learning Environment Research*, 15: 171–193. (Accessed 6 November 2018).

³⁰ Della Sciucca, S. and Fochi, V. (2016) ‘The Flipped Classroom: the point of view of the students.’ Proceedings of the Ememitalia Conference 2015., 12 (3).. . This article is about secondary school students, but the principles it posits apply equally to tertiary education.

‘chalk and talk’. None of these variations could be said to represent a trend: they illustrate rather how skilled and experienced academics understand how to relate to circumstances.

Summary Box 12

Flipped learning

- Flipped learning is the most marked pedagogical trend of recent years and increasing in importance.
- It promotes dynamic learning by encouraging the student to take more responsibility for study.
- There is no fixed definition, but it often involves:
 - Pre-class prep by students.
 - More targeted use of lecturer contact hours.
 - Use of (often online) assessment to enable lecturers to identify students’ strengths and weaknesses and focus on the latter.
 - Emphasis on use of technological learning applications.
- It may be delivered as a type of blended learning.
- Indications are that flipped learning is practised at most or all UK universities, though not by all departments or individual lecturers.
- There is some evidence that it works better for small groups of students and clearly works better for those students sufficiently motivated to carry out the prep.
- It may be most effective when not used alone but in combination with more traditional pedagogies.

VII. The influence of Open Access

One of the aims of the study was to assess the part played by Open Access learning materials and to ascertain whether there was evidence that this was increasing. This section follows the section on changing pedagogical approaches, especially flipped learning and the greater emphasis on digital learning applications, because these are likely beneficiaries of Open Access. It should be added that the big international Open Access initiatives now taking place in some European countries – for example, Sweden, the Netherlands and Denmark – are outside the scope of this report, as indeed are national developments in the UK – for example, work by funding bodies in this area and how to address ‘Plan S’ – some of which at the time of writing are still at the consultation stage.

Open Access is itself a broad term. It is most familiarly understood as one of the business models under which ‘Gold’ (author pays) or ‘Green’ (retains the subscription model but is available free of charge to all after a specified embargo period) journal articles are published. However, it is also used to refer to the development of OERs, which may include textbooks, monographs, smaller units of knowledge or learning that can be repurposed (such as online quizzes and notes placed on the VLE by lecturers), or academic podcasts and video clips placed on YouTube or other widely accessible platforms.

The study revealed that what does or does not constitute an OER is a distinction more likely to be made by librarians than academics. In the purist sense of the word, an OER is something to be shared widely, almost limitlessly, with those who are interested in it. MOOCs (Massive

Open Online Courses) fulfil this definition, but OERs often don't. For example, a Psychology academic at a post-1992 university said, 'We do develop OERs, but whether they're "open" depends on your definition – some of them aren't made available outside this university'.

Quizzes and PowerPoint presentations prepared by academics using the flipped learning approach to teach students the basics on a topic prior to the lecture are often also available only to students at the individual university, accessible only via that university's VLE and if they aren't, they may relate too specifically to a particular course to be of wider general use. 'Academics create their own simulations because they have very specific things they want to teach', said a Nursing academic from a post-1992 university. Conversely, a Nursing academic from an older university said that she would use online content available to all as a teaching aid, including MOOCs developed by other universities, if she thought it suitable.

Increased use of lecture capture was mentioned by many academics and librarians across all five of the universities who contributed to the study in depth and this is, of course, a type of ad hoc learning resource. Again, however, it is usually only available to students enrolled in the course concerned. 'We record our lectures and it is really easy and works 99.9% of the time and the technology for uploading lecture slides to the VLE is super-easy too. I think we are being encouraged to use new ways of teaching', said a Psychology academic from an older university.

Lack of preparation time and the ephemeral nature of courses that constantly need updating by conscientious lecturers as the frontiers of research are pushed back further was identified by several academics as a major obstacle to developing OERs: 'We're told to create more of our own teaching materials, but there's no time to produce them. Once I've created something I try to keep on upgrading it on a rolling basis for as long as possible', said a Psychology academic from a post-1992 university. An Education academic at the same university said, 'OERs are difficult to produce for Education, as we're all very busy with the practical side of it. My colleagues and I are involved in publishing: we're putting together a new edition of a textbook. Like its predecessor, it will be published by a traditional publisher.'

The librarians interviewed were virtually unanimous in voicing their dislike for 'hybrid' journals (those sold partly on a subscription and partly on an author-pays basis), to some extent because the terms of access baffle and therefore discourage students and also because library discovery systems can't isolate individual Open Access titles. However, the librarians acknowledged that academics were likely to prefer hybrid Open Access journals because their work gains greater exposure from this type of publication. This in itself causes tensions when articles from these journals are being recommended for undergraduate use: 'Academics are likely to prefer hybrid journals if they're being pushed down the Gold route, as they have better impact factors than 'pure' OA. The REF advises academics to ignore both the name of the publisher and the format of the publication, but not many academics trust this.'

At least one librarian who contributed to the study thought that research-led teaching should mean that the academic uses the results of his or her own research to teach undergraduates, rather than 'expecting the Library to acquire' published resources. Neither the academics nor the librarians interviewed seemed to be making a systematic effort to drive student traffic towards the 'free' materials in their own institutional repositories. However, of a cross-section of the academics and librarians who were contacted again at the end of the academic year 2017–2018 to be asked if there was anything in retrospect they would have done differently, several of the librarians said that in future they would be directing students more actively towards Open Access as opposed to subscription resources.

The conclusion that may be drawn from all of the above is that Open Access is influencing the nature, development and dissemination of some teaching materials, but so far in only a piecemeal way. Its influence is likely to grow, and perhaps over time the favour shown towards Open Access materials will be more systematically implemented. However, because higher education in the UK is now highly competitive, with institutions vying against each other to attract the best (or, sometimes, any) students, it is unlikely that most of the material developed by academics themselves will be made available to students outside their own university (unless there is a government directive or similar mandate requiring them to do so) and unless academics are allowed more time by the institution to create their own materials, it is unlikely that these will take over in a major way from traditionally-published resources. What the institution itself must weigh up is whether it is more productive and/or cheaper to pay for academics' time to develop resources than purchasing them from a professional publisher. Over time, a third way may be arrived at by means of non-conflicting collaboration between academics and publishers: 'Lecturers want to write their own content around [published] e-books and should be able to', said a Business academic from an older university.

Summary Box 13

The influence of Open Access

- Open Access is most familiar as the 'Green' or 'Gold' journals business model. Some librarians say they are now actively driving users towards OA journals, but they dislike 'hybrid' journals (although academics may not share this attitude).
- OA also relates to OERs. As well as open textbooks or monographs, these may include:
 - Smaller units of knowledge
 - Online quizzes or notes placed by lecturers on the VLE.
 - Academics' podcasts or video clips.

But:

- An item is not an OER if it may not be shared outside the university where it was developed.
- Conversely, MOOCs are OA by definition.
- Lecture capture may be considered a form of OA, but again only if made widely available.

Constraints on the development of OERs include:

- Lack of academic time to prepare them.
- Ephemeral nature of teaching – OERs need constant redevelopment.
- Inter-university rivalry.

Question

Can publishers and academics find a way of working together without conflict to make the development of OERs combined with traditionally published resources realistic and sustainable?

VIII. Relationship with publishers

The above evaluation of the role of Open Access in its various forms provides a natural lead-in to an assessment of how academics and librarians view their relationship with publishers. Of the SurveyMonkey respondents, only the librarians were asked how they felt about their relationship with publishers. Figure 25 illustrates their replies.

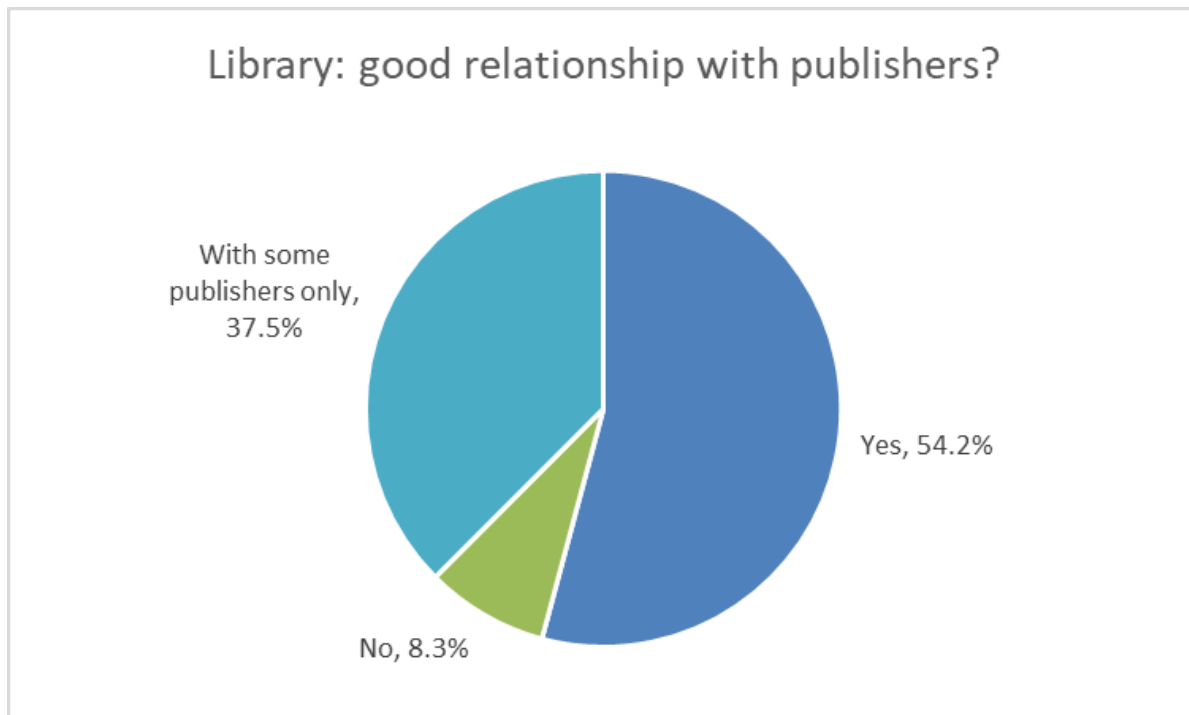


Figure 25: Library relationship with publishers

54% of the librarians who answered the question said that their library enjoyed a good relationship with publishers. 38% said that they had a good relationship with some publishers only. 8% said that, broadly speaking, they did not enjoy a good relationship with publishers. The same respondents appeared to enjoy a rather better relationship with aggregators³¹. Figure 26 illustrates their replies.

³¹ The main reason for this is that publishers are fierce guardians of their own and their authors' copyright. While aggregators must observe copyright, it is not for material they have developed themselves. They therefore tend to resent restrictions imposed by publishers to safeguard copyright and may 'side' with librarians over this. Librarians sometimes prefer to purchase via aggregators to save time and simplify access for their patrons (feeling it preferable to access the products of several publishers via a single platform).

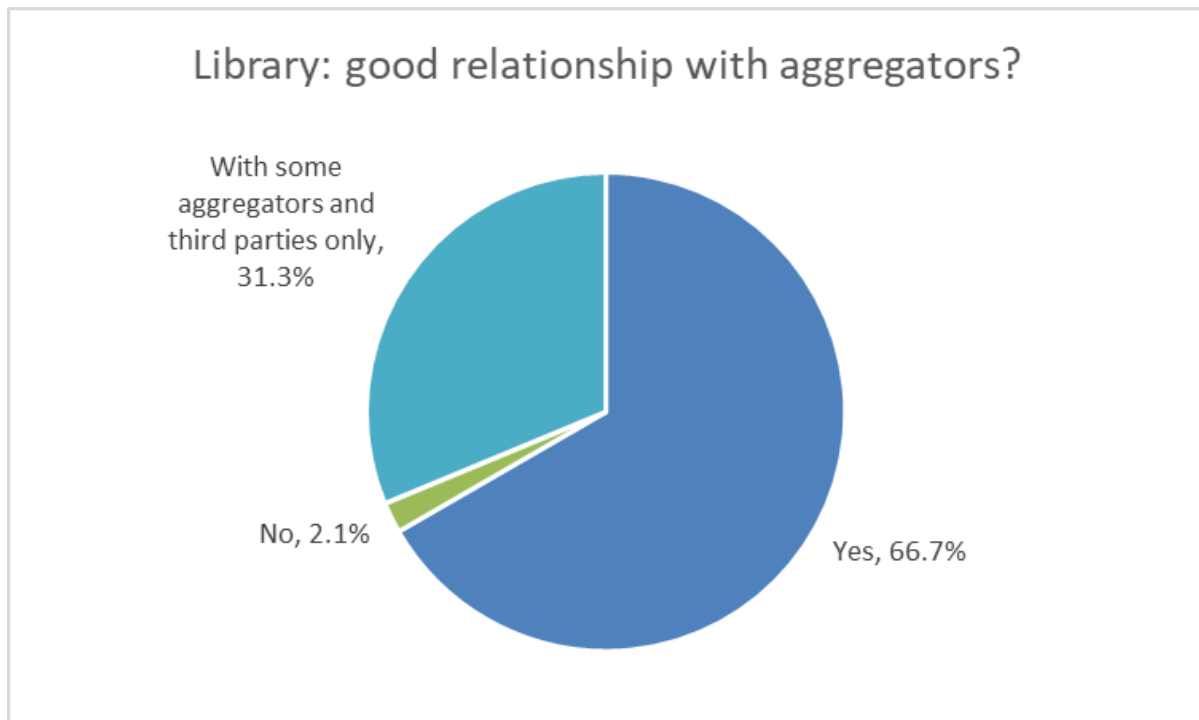


Figure 26: Library relationship with aggregators

67% said their library had a good relationship with aggregators and other third-party suppliers. 31% said they had a good relationship with some of them only. 2% said that, broadly speaking, they did not enjoy a good relationship with aggregators and other third-party suppliers.

When asked how the relationships with publishers and aggregators might be improved³², the two most frequently mentioned aspects of the librarian/publisher relationship the librarians felt could be improved concerned the prices set by publishers (librarians would like publishers to be more generous) and more attentive listening by publishers to librarians when the latter are describing their needs. Again, price-setting, particularly against a backdrop of budgetary constraints, forms the nub of this issue. Other factors mentioned included that publishers: should make more effort with communication generally; shouldn't contact academic departments without the Library's knowledge; should make pricing and the operation of business models more transparent; should make e-book business models more flexible (including allowing more concurrent user accounts); should make sites more user-friendly; should invest more in Open Access; should make more print content available digitally (and affordably); and should access to digital resources to alumni³³.

The academics who took part in the in-depth interviews were also asked about their attitude towards publishers. Opinions varied widely, but were generally more unfavourable than the reverse; some were clearly based on ill-founded prejudices that have grown up because

³² This was a free question, inviting a narrative response.

³³ This has been a bone of contention ever since publishers started to provide content in digital format. When most material was available in print only, some universities allowed alumni membership of the Library 'for life'. Obviously, this became less useful when digital content began to replace print. Some publishers do allow access to digital content by alumni as part of their contract with the Library; others, while not offering automatic right of access, will support alumni by allowing temporary access while they are working on specific research projects. Most publishers operate reasonably-priced subscription models for individuals.

academics don't know how publishers operate: for example, one head of department said that publishers should adopt a global strategy of publishing everything digitally, which he believed would allow publishers to achieve economies of scale that would enable them to lower prices. In fact, digital production is not cheaper than print production and may in many instances be more expensive³⁴; most undergraduate academic publications must be redeveloped, some very significantly, for regional markets.

Price featured large on the academics' list of disapprovals. Other disappointments included the uninspiring nature of textbooks (though several said they wanted more textbooks to be available in e-format); the single-user e-book business model; and the over-complexity of some publishers' platforms, which the academics felt they therefore did not have time to investigate. Some academics, particularly those teaching Business, said there were resources they would like to be able to use that were simply unaffordable, either by the Library or the department. The 'astronomical' cost of a well-known business data provision service was mentioned more than once.

Both academics and librarians were asked whether there were gaps in the resources available for their subjects. Development of better audio-visual resources was mentioned more frequently than any other wish-list item (although one Business academic said that this does not lie within publishers' natural area of expertise and they should focus on what they know). That publishers should provide more material via Open Access was also mentioned; one Education academic saw this as a possible way for publishers to rejuvenate what she perceived as a flagging relationship with academia:

'Our relationship with traditional publishers is diminishing, but their approach to OA will make a difference – if they support it, they'll do better with us. More universities are looking at developing their own publications, but there will be a saturation point here, because of the other demands on academics' time.'

Nursing academics and librarians were united in saying they needed more and better simulations and greater investment in skills labs. One broadened this out by saying that more 'virtual reality' material generally was needed.

³⁴ There are many reasons for this, some of which are: the cost of platform development; digital author royalties (which tend to be higher than for print); paying for digital rights for illustrations; and 'absorbing' the cost of VAT (which print publications don't attract but digital ones do). Offset against these are the cost of paper, boards, ink and printing – but they are a relatively insignificant element of the price of a print publication. One well-known large academic publisher has calculated these costs specific to print at no more than 9% of the whole.

Summary Box 14

Relationship with publishers

- Just over half of the participating librarians said they had a good relationship with publishers and just over one third said they had a good relationship with some publishers only.
- Just over two-thirds of participating librarians interviewed said they had a good relationship with aggregators and just under one third said they had a good relationship with some aggregators only.
- 8% of the participating librarians said that generally they didn't have a good relationship with publishers and 2% said that generally they didn't have a good relationship with aggregators.

Reasons given for tensions in the relationship between librarians and publishers:

- Prices and price-setting methods.
- Inflexible business models. Aspects complained about included:
 - Not enough available via Open Access.
 - Not enough print material available digitally.
 - Not enough concurrent user options/restrictions on users generally.
 - Access not provided to alumni/students at affiliates.

Academics' views on publishers

- Generally less favourably disposed towards publishers than librarians are.
- Also complained about price.
- Some requested more diversity in the formats offered – e.g., more AV, more simulations.

Key message to publishers from students

- Make textbooks shorter and more up-to-date.

The academics and librarians at some of the universities that took part in the in-depth study were asked at the end of the academic year 2017–2018 what types of resource had, in retrospect, been used more or less than they expected and whether there were any types of resource that they would have liked to have had the use of during that year or would plan to use in the future.

Some of the librarians said they were becoming more conscious of the need to cater for a wider range of learning styles and would therefore seek to invest more in video games and DVDs – though the business models operated by existing suppliers, particularly if they involved subscription rather than one-off purchase, presented a problem. Several said the Library continues to monitor ever more closely how well resources are used and will cancel those regarded as under-used or representing too high a cost-per-use. Some acknowledged the downside to this – that Library holdings will become more pedestrian and less fitted to provide a rich fund of resources that students may discover for themselves outside their recommended reading.

Several of the academics said they were using even more journal articles than they had anticipated, often instead of textbooks. However, some also mentioned again student

pressure to make more print textbooks available from the Library. Academics at a university which has a high intake of overseas students, whose first language is not English, said that proper first year textbooks were needed for these students, as it was off-putting for them to be expected to use A level texts. 'Unconventional' learning aids such as podcasts were mentioned, and one academic was planning to develop his own online platform for delivering certain resources, such as online tests.

The focus group students said they used online tests and 'little quizzes', but most agreed that these more light-hearted types of resource were for getting them up to speed in certain topics. The real 'heavy-lifting' – work for assignments and exams – still required extensive use of journals and textbooks (often in that order). How useful textbooks were deemed to be depended on the subject: in Nursing, for example, students wishing to keep abreast of new developments rely on journal articles almost exclusively because the textbooks are always out-of-date³⁵. Students in Economics and Sociology said that textbooks gave them a good grounding in the subject which they could then supplement with more up-to-date material on specific topics from journals. The students generally liked lecture capture and several – across all five universities – said they recorded themselves reading their own notes as a means of revision. When focus group students were asked what their single most important message for publishers would be, they said it would be to make textbooks shorter and more up-to-date.

³⁵ Some publishers, aware of this, are experimenting with initiatives to combat the typically long time lag between acceptance of a manuscript and its publication as a textbook or monograph. The 'hybrid' short book cum journal article offers one example (as developed in Palgrave Pivot and Cambridge Elements).

PART FOUR: RECOMMENDATIONS

Section One: Recommendations for the Government and University Administrators

It was not a primary purpose of this study to make recommendations to the Government and the senior administrators running universities. However, addressing some of the findings certainly requires support from these bodies. They are high-level recommendations only: it is outside the scope of the study to suggest practical measures for putting them in place.

Competition between universities

The UK university system is now structured to foster competition between universities. This may be regarded as ‘healthy’, but an unintended knock-on effect has been to lower standards at some universities. It is sometimes also responsible for the inclusion of arcane topics in syllabi as attempts are made to distinguish individual courses and modules from their rivals.

Recommendation 1: It is recommended that negative issues arising from promoting competition between universities should be appraised and where possible removed.

The TEF and subject-level TEF

At the time of writing subject-level TEF has yet to be introduced. The first round of the TEF contributed to the competition between universities noted above, as the Government intended, but not necessarily in helpful ways. It is not for this study to assess whether the six key metrics considered when awarding universities their TEF ratings were appropriate, but what has been made clear by every one of the academics interviewed in depth is that the TEF, as it stands, does not rate the quality of teaching provided. ‘Teaching Excellence Framework’³⁶ is therefore a misnomer, and likely to mislead both students and their parents when making choices about which universities to attend.

Recommendation 2: It is recommended that ‘TEF’ is replaced by a term which reflects more accurately the metrics by which it operates and that separate, more meaningful ways of assessing teaching standards, if they can be found, are put in place.

Tuition fees

It is outside the scope of this study to determine whether tuition fees are ‘fair’. (At the time of writing considerable debate is taking place on this subject.) An unfortunate and doubtless unintended side-effect of the introduction and subsequent ratcheting up of tuition fees has been to encourage some students to equate the sum paid with the grade of degree awarded.

Recommendation 3: It is recommended that both the Government and universities make it clearer that students are not ‘paying for’ their degrees.

³⁶ The full name of the TEF was changed to ‘Teaching and Student Outcomes Framework’ at the end of 2017, but that has no influence on our recommendation.

Student expectations

One striking feature of the findings of this study was that most academics and librarians not only listed 'student expectations' as a major impetus for change, but that many also went in fear of these expectations; some felt oppressed by the continual need to satisfy them. The issues identified in the preceding three paragraphs – competition between universities, the TEF and tuition fees – all have a bearing on student expectations. Taking student expectations into account is in one sense a good thing – students deserve to have their voices heard more clearly than has sometimes happened in the past – but it becomes a two-edged sword if it leads to 'pandering' to students and making study less rigorous. The latter can only lead to the lowering of standards.

Recommendation 4: It is recommended that when students are enrolled on undergraduate courses it is made very clear to them the level at which they will be expected to work and the volume of work required; and that there are no short cuts. Conversely, it is recommended that the practice at some universities of including student representatives' participation in course committees should be adopted more widely.

(However, the anxiety-inspired requirement for students to complete many questionnaires and forms about the way they are taught and the content of their courses should be scaled down. Academics, librarians and students themselves said students are experiencing 'survey fatigue'.)

Academic career progression

British universities are following their counterparts in the USA and elsewhere in the world by employing many academic staff who do not have tenure; these staff, who are mainly employed to teach but know that in order to gain tenure they must also publish, say they are not given enough time either to prepare lectures or mark papers. British academics who have tenure say their duties are expanding: there is a sharper focus on teaching than in the past, which pre-dates the TEF; they are also expected to publish; their administrative burden is growing; and some universities are nudging them to produce their own teaching and learning materials. Both the Government and senior university administrators must understand that they cannot keep on heaping pressure on academics (with or without tenure) in this way without compromising the standards of both teaching and research, not to mention the mental health of their employees. Not all universities adopt this approach: of the universities that took part in the in-depth interviews, one assessed merit for academic progression on either teaching or research, according to personal choice, although its academics were encouraged to engage with both. The academics at this university seemed better-adjusted, more optimistic and believed themselves to be more valued than academics at the other in-depth universities. It is accepted that this approach will not necessarily work for all universities; but all universities need to find a way to tackle the problem of escalating academic workload.

Recommendation 5: It is recommended that a more realistic and sympathetic assessment of academic workload is taken by employers and greater efforts made to ensure career security and progression, especially for those without tenure.

The Library and librarians

The study is shot through with examples of how librarians continually strive to supply the resources their users need, train users of all kinds to find and use resources and make the very best possible use of resource funds by both promoting resources and monitoring their use. None of the other main stakeholder groups had a bad word to say about librarians; most praised them, saying how indispensable their services are. The pressures they face are considerable: as well as being expected to supply resources in more than one format – with demands increasing from students and some academics for more print – they are being asked to supply more study and group-work space in the Library and fulfil burgeoning needs for new resources for teaching and research with static or declining budgets. In addition to this, in some quarters, while they may still be valued, it is in a semi-patronising way: they may be regarded as mere adjuncts to academia, rather than one of its most important lynch-pins.

Recommendation 6: It is recommended that librarians are listened to more by those who do not currently listen properly to what they say. It should be acknowledged that they cannot solve some of the problems with which they are faced – such as the conflicting demands for more print and more physical library space – without support from other quarters. It needs to be recognised that the relentless squeeze on library budgets³⁷ is bound ultimately to have serious knock-on effects on teaching, learning and research.

Section Two: Recommendations for the main stakeholder groups on which the study focuses (academics, librarians, students, publishers)

Note: Some of these recommendations are relevant to all the main stakeholder groups and others to only some or a single group. It is not practicable to prepare separate recommendations for each group, and arguably not desirable, as they have overlapping goals and will clearly achieve these more effectively by working together.

Changing pedagogies and the resources required to support them

In a nutshell, there is greater focus on the quality of teaching and the deployment of pedagogies that promote better teaching than in the past – a focus which pre-dates the TEF but is certainly influenced by it. Flipped learning, more emphasis on technology and promoting the practice of research-led teaching are the key trends identified by the study. However, these are most effective when combined with more traditional approaches to teaching. The study discusses these points in depth. The resources required are diverse in terms of both content and format. Publishers are criticised for not keeping material sufficiently up-to-date; academics cannot cope with the work involved in creating their own content from scratch. Textbooks are criticised for being too expensive, too long and containing too much material not relevant to the course. The ‘short books’ published by certain publishers and proprietary journal article/monograph hybrids being developed by others might hold greater potential for today’s students than traditional blockbuster textbooks. Journal articles are assuming ever-greater

³⁷ It is worth adding that some prominent university administrators have suggested that the availability of more resources via Open Access is a reason for cutting library budgets.

importance, but students often find them hard to cope with. Students need better ways of assessing how valuable both journal articles and individual monographs/textbooks might be for them. Access to published resources by certain students and other groups – e.g., alumni – may be limited or non-existent. Restrictions on some electronic resources – especially, ability to download/print/annotate (although it should be added that evidence, from the statistics supplied by Aggregator A, that students use these facilities to any great extent is limited and the issue may not therefore be as serious as librarians suggest) – may also hinder study. Having to accustom themselves to different publisher platforms may confuse students and also hinder study. There is considerable evidence that a wider range of resources is being used to support technology-enhanced learning and that the trend to deploy such resources is growing, albeit from a low initial base. Students and librarians often need stronger classification of items on reading lists, so they understand which are essential and which are intended for ‘reading around’ a topic. The longer the reading list, the more important this becomes. Although many universities have invested in reading list software and most of the others are planning to implement it, it is not always used by individual academics. VLE use in universities is patchy and, according to students, ‘only as good as the (individual) academic’. How VLEs should be deployed is outside the scope of this study; certain universities and individuals clearly use them more effectively than others, but they don’t appear to have revolutionised undergraduate study as much as it was recently believed they would. However, there appears to be a growing need for PowerPoint presentations on individual topics, probably generated by lecturers posting their own presentations on VLEs (sometimes in conjunction with lecture capture). There are opportunities for publishers to work with academics to offer generic PowerPoint presentations of a high standard, which can be customised by the individual academic according to specific course needs.

Recommendation 7: It is recommended that publishers make monographs and textbooks available simultaneously in print and electronic mediums and, they devise business models for supplying the same publication to the Library in both mediums if required. Publishers should find ways of making these business models affordable and sustainable. It is also recommended that they devise high-quality customisable PowerPoint presentations to support key topics.

Recommendation 8: It is recommended that publishers present all the material they publish for undergraduate teaching and learning in such a way that academics can easily augment or update it with their own material; and that contracts and licences include permission to do so.

Recommendation 9: It is recommended that publishers experiment with formats that enable content for undergraduates to be published more quickly and with more relevance to individual modules and courses. As a general principle publishers should attempt to keep the prices of all content which students might be required to pay for themselves as low as possible. Publishers need to liaise closely with academics and librarians to ensure that the correct links to appropriate formats are accurately represented in reading list software.

Recommendation 10: It is recommended that academics, publishers and librarians work together to help students to understand better how to use journal articles and which ones are most appropriate to their needs. Ways in which this may be achieved might include: a short video clip featuring an academic showing how to read and make notes from a journal article and undergraduate level ratings showing which journals (or individual articles, if they are used frequently) are suitable for the level of study they

have reached. A short video clip featuring an academic or librarian explaining how to cite and reference content from published sources would also be useful.

Recommendation 11: *It is recommended that publishers set up reviewing mechanisms for learning materials, especially textbooks, for students considering purchase. Ideally, such a facility should be placed on common platforms, such as aggregators' websites. However, as publishers are rivals and most have some publications they don't supply through aggregators, placing it on the publishers' own websites, as well, is likely to be most effective.*

Recommendation 12: *It is recommended that publishers and librarians make a joint effort to address restrictions imposed by publishers for copyright/intellectual property reasons that may impede study. These include extending licences to affiliates and alumni; working out which restrictions are necessary to safeguard rights and which may be relaxed; and perhaps extending the amount of material made available through aggregators. Long term, publishers might also consider working together through a neutral third party – e.g., a professional association – to place content on a common platform³⁸. It should be emphasised that what is being advocated is not a capitulation from publishers to accommodate all the demands made by librarians, but a genuine dialogue, involving transparency and honesty on both sides, to ascertain what is truly required, how much it truly costs and, on this basis, given that publishers must generate enough income to maintain sustainability, what can be achieved.*

Recommendation 13: *It is recommended that publishers, working with academics and librarians, should consider further development of the new types of resource identified as useful by the academics, librarians and students who contributed to the study. These include short video clips; online learning suites; simulations; quizzes, etc. However, it is also recommended that all stakeholder groups acknowledge and understand that publishers must again focus on sustainability here. Some of these applications are expensive to develop, but there may be no budget to pay for them once they're placed on the market; versions of some are already available 'free' online; others will be easily replicable and therefore at risk from piracy. Again, publishers, academics and librarians should ensure that accurate links/bibliographical references to these new resources are placed in reading list software.*

Recommendation 14: *It is recommended that universities and departments within universities adopt clear policies about the categorisation of items placed on reading lists (and possibly the length of the reading lists themselves, though this may be too much of a one-size-fits-all approach), so that students are clear about which resources are essential to achieve academic competence and which ones are for aiming higher. This will help librarians know how best to support students with accessing and engaging appropriate resources.*

Recommendation 15: *It is recommended that reading list software is deployed by all academics at the universities where it exists and that it is installed as quickly as possible at universities where it isn't yet operational. However, it is strongly recommended that safeguards are put in place to ensure that the pool of resources*

³⁸ This concept has been experimented with in the USA – e.g., via Ohio Link: www.ohiolink.edu.

drawn on for inclusion in resource lists does not become narrower year by year as a result³⁹.

Metrics

Librarians have many kinds of electronically-gathered metrics at their disposal, generated both internally on their own systems and from publishers' and aggregators' systems. Most of these involve counting electronic resource usage. Some publishers and aggregators can refine basic number counting: for example, by showing the number of seconds spent on an individual page, the number of pages accessed per book, the number of downloads or annotations made, etc. It is not possible to gather meaningful comparator metrics for print. On the face of it, the cost per use for print items is increasing, and much higher than for electronic products, but there is evidence that print borrowers choose the books they borrow more carefully; also, use of electronic books is measured by chapter and not by the whole book. Librarians are aware that raw usage and cost per use counting should not be the only metrics considered, but in practice these make the most compelling argument, especially with accountants and university administrators.

Recommendation 16: It is recommended that librarians, publishers and aggregators work together to produce the most granular statistics possible: for example, by enabling the identification of different user groups without contravening data protection laws.

Recommendation 17: It is recommended that librarians enlist the help of authors and researchers to explain the importance of maintaining as diverse a set of library holdings as are consonant with the University's present and future needs, for both teaching and learning and research. See also Recommendation 6 above.

Recommendation 18: It is recommended that SCONUL, or a similar body representing UK academic libraries, commissions a feasibility study into how the benefits gained from print resources may be measured more accurately.

The influence of librarians on resource choices

Academics are more likely to think that librarians influence their resource choices than librarians themselves. However, librarians hold the key to the resource user cycle: they train in resource usage; help to place resources on reading lists; may encourage academics to use existing holdings rather than requesting new resources and suggest alternatives for 'expensive' resources; and cancel under-used resources. They are likely to influence the resources students use too: though at many universities students have succeeded in persuading librarians to buy more print, rather than electronic, for some resources.

Recommendation 19: It is recommended that publishers and aggregators always include librarians when setting up meetings with academics; equally, it is recommended that librarians help publishers and aggregators to achieve this.

³⁹ The danger being that higher usage will inevitably be achieved by items on resource lists than by other library holdings and usage metrics, which librarians use to decide whether or not to retain resources, will reflect this.

Recommendation 20: Some publishers and aggregators already have good ‘listening mechanisms’ for collecting feedback from librarians, academics and students about resources and resource delivery platforms. It is recommended that those who don’t should implement them and that in all cases these should make as few demands on the time of the participants as possible.

See also **Recommendation 7** and **Recommendation 9**, which relate to pricing.

The influence of Open Access

Librarians have begun actively to guide academics and students to Open Access resources, especially Open Access journal articles. Some universities are encouraging academics to develop open textbooks and other OERs, including smaller, learning aids that can be repurposed. However, most do not have enough time to not only to create such resources but continually to update them and, often, they will not share the resources outside their own institution, which means they are not truly ‘open’.

Recommendation 21: It is recommended that all stakeholder groups take a keen interest in Open Access as it continues to develop, especially now that Plan S⁴⁰ has been launched, and all eligible groups contribute to consultation papers, etc., as they appear.

See also **Recommendation 8** above. As it is one of the most important recommendations of this study, it is reproduced again here:

Recommendation 8: It is recommended that publishers present the material they publish for undergraduate teaching and learning in such a way that academics can easily augment or update it with their own material; and that contracts and licences include permission to do so.

Relationship with Publishers

Although both the SurveyMonkey questionnaires and the in-depth interviews focus on librarians’ and academics’ relationships with publishers, the whole study indicates the need for more discourse and better understanding between all the key stakeholder groups. There are many ways of achieving this, some of them exciting and revolutionary: for example, the relatively recent focus on achieving the highest standards of teaching in higher education (which, as this study has already pointed out, pre-dates the TEF, but which the TEF has certainly served both to emphasise and accelerate) has led to the creation of teaching and learning centres at some UK universities, including the oldest and most prestigious ones. Excellent pioneering work is being carried out at these centres: academics working in them are seeking to understand how advanced learning takes place, what kinds of condition best promote ‘proactive’ learning – i.e., learning that fosters thought and invention rather than merely absorbs fact – and the types of learning resource best fitted to support this. In other words, concerted attempts are being made to enable today’s students to reach their maximum future potential. Publishers need to be closely involved in this work in order to keep abreast of

⁴⁰ For more information, see www.coalition-s.org

the changing pedagogical demands involved⁴¹. Recommendation 22 may sound pious, but it is undoubtedly the most effective way of creating sustainable pedagogical resources that fulfil today's and tomorrow's undergraduate teaching and learning needs.

Recommendation 22: It is recommended that all the key stakeholder groups, the Government, university administrators, academics, librarians and publishers, find more effective ways of engaging in dialogue with each other and understanding both mutual and individual challenges, both as individuals and through larger representative bodies, and that, where appropriate, they involve students in this discourse.

⁴¹ At the other end of the spectrum, the study has shown that more appropriate teaching and learning resources are also needed for students from disadvantaged backgrounds, or whose first language is not English, particularly during their first year of undergraduate study. More than one academic pointed out that expecting these students to use A level texts is not an adequate solution.

ACKNOWLEDGEMENTS

First and foremost, we should like to offer massive thanks to Kiren Shoman, Editorial Director at Sage Publishing, and Adrian Scott, until recently UK Sales Director at Sage. The whole study was inspired by Kiren, and she has supported it throughout with her wise advice and phenomenal 'blue skies' thinking and enthusiasm; her sense of humour has kept us going during the worst periods of 'bogged-down-ness'. Adrian has helped in many practical ways and offered a calm ear when one was needed; we wish him well following his recent career change. Jess Villarreal also deserves a big mention for her efficient practical support.

Hundreds of academics, librarians and students from UK universities have participated in the project, which would not have been possible if they had not given generously of their time and shared their views with much-appreciated candour. It is not possible to acknowledge all of them individually – and we are further constrained in this by our strict promise to respect confidentiality – but we hope you will all read this report and find it useful; while you are doing so, accept our heartfelt thanks. We feel we cannot allow the report to be published without mentioning our special indebtedness to: Jeremy Upton, University Librarian at the University of Edinburgh and Elize Rowan, Acquisitions Librarian at Edinburgh; Professor Simon Walker, Head of the Educational Department at the University of Greenwich; Martin Gill, Head of Academic Services at the University of Huddersfield and his colleagues Zoe Johnson and Janet di Franco; Ruth Dale, Senior Librarian, Collections Strategy and Projects at the University of Nottingham; and Fiona Greig, Head of Library e-Strategy and Resources at the University of Surrey. Collectively they have expended considerable time and ingenuity in helping us set up the in-depth interviews and arrange the student focus groups. Again, the study would have been impossible without their generous co-operation. Although we won't name any other individuals at the 'in-depth' universities, we would like to pay special tribute to the members of the student focus groups, who impressed us with their simultaneous energy, ideals and clarity of vision.

Many members of the publishing industry and its related organisations have also contributed, both directly and indirectly. Again, they are too numerous to be named and we hope that they will accept 'blanket' thanks. We should, however, like to mention Jason Beech, Channel Director at Kortext, and his colleagues for being especially helpful and willing to devote so much time to assisting us.

We hope that we have done justice to all the hard work and insights that the many contributors to this study have given us. It remains for us to say that any errors are, of course, our own.

Linda Bennett
Annika Bennett

February 2019

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NOTES ON THE FIVE SOCIAL SCIENCE SUBJECT FOCUS GROUPS AND INTERVIEWS

Have teaching methods changed?

(see section [“Have teaching methods changed?” on page 11](#))

Business and Management academics and librarians

There was some agreement among the academics that their approach to teaching had changed over the past three years, but this wasn't a universally-held opinion. Drivers for changes were identified as coming both from within the university hierarchy and from the academics themselves. Two of the non-Russell Group academics had previously worked at Russell Group universities. One of these said that the pressures of teaching in a post-1992 university were much greater, owing to the larger numbers of students in each cohort and the constant shortage of adequate teaching space: 'There's a constant shortage of rooms and the sizes of classes make student engagement very difficult (on average, I teach 200–300 students per class).' This academic said that, because cohort sizes made seminars and tutorials difficult or impossible to arrange, 'we do rely on more interactive material and technology to keep the lectures interesting'. Conversely, the academic who had previously taught in a Russell Group university said the cohorts were much smaller at the post-1992 university (around 40 in size, as opposed to 100) and claimed this 'makes it possible to conduct classroom activities and not just talk'. The two academics (from different universities) who gave a more personal reply to this question said, respectively, that he was focusing on improving his own teaching (having worked previously in another post-1992 university where there was a less strong teaching tradition); and that in recent years he'd come to focus on: 'the *value* of the classroom teaching, and how can I make sure it is valuable for the students. My teaching is based on the philosophy that students get the most out of a lecture. How can I design my class around that?' Those who said the approach to teaching at their institution had changed identified flipped learning as a major factor in this. A typical comment:

- 'During the past 3–4 years, there's been significant pressure to move away from traditional teaching (though we don't actually discourage traditional teaching; some of it's very good). We're aiming for more flipped learning, more interactivity and more use of electronic learning resources. Lecturers are expected to be familiar with these resources and to be able to engage with them.'

One of the Russell Group academics had recently transferred to the university, and identified clear differences between its approach and the approach of the post-1992 university at which they had been previously employed:

- 'I have only been employed here since October 2016, and before I was at a post-1992 university. Both universities I have taught at have received TEF Gold. However, there are some clear differences. At the post-1992 university, a lot of effort is going into new initiatives. Part of that is that they have more students who are unable or less willing to teach themselves. Here, the expectations are more that they are able to look after themselves and learn for themselves. This university has some 'new' ideas, for example on flipped learning, but compared to what we did at the post-1992 university these things are not new! In my previous role, I was Associate Head of Student Experience, and we implemented a dashboard for each student where they were able to compare themselves against peers.'

The Business librarians were aware of changes in approach to teaching, though none were deeply involved in pedagogy or could explain these changes in detail. One of the universities they represented expected librarians as well as academics to gain a teaching qualification; the main purpose of this was to teach students how to use learning resources most effectively.

- 'I think there have been changes, and some are still coming through. One is lecture recording, which is already in a beta-stage but not yet compulsory. However, it most likely will become compulsory soon. There is a drive for all students to experience online learning, even those who are on campus. Digital learning and distance learning is not big at our university in terms of numbers, but it has a very high profile and has driven a philosophy of "every student a digital student". There has been some development of MOOCs. The NSS is of big concern for us; in the past, we haven't featured very well in terms of teaching, assessment and feedback, so we, as a university, have to improve on that.' [RG]

Education

As educationists, the academics were proficient in the use of technological resources and advocates of innovative teaching. They were also sensitive to individual learning styles and the importance of adopting a different teaching approach with different student communities: mature students, for example. One of the educationists said that all academics at the institution must now have a teaching qualification (this was also the case at one of the other universities) and his department is responsible for arranging this. There was also evidence that some educationists develop quite extensive learning resources of their own. The point was made that partner institutions (in some cases, in other parts of the world) are also expected to develop their teaching standards to the same level.

- 'I'm not sure my approach to teaching has changed, except my approach to teaching mature adults – I think I'm better at helping them to discover their learning styles. The university encourages people to engage in more active teaching methods and use the technology more; as teachers we're already used to this.'
- 'Teaching methods have changed [since 2008]. We use Lecture Capture, so the students can access learning online. More assignments are being submitted electronically. The numbers are bigger – courses in Childhood Studies have grown, particularly. We have made a push towards flipped learning. I was responsible for revamping the research module for this. We tried to integrate flipped learning into every course and developed a workbook for this. It was a large module, with six tutors each taking a different approach, using flipped learning in different ways, so we tried to standardise it a bit. It requires a cultural shift to get a new teaching method like this accepted: it takes time.'
- 'We make no specific contribution to student numbers, but we're responsible for the quality of all teaching. We also run PGCEs in Higher Ed. Anyone who teaches at the university and doesn't have a teaching qualification has to do this. Anyone who is part-time does a separate programme, and has to complete 60 hours of quality-assessed teaching. We have developed links with many partner colleges in the UK and abroad: there are 40 in the UK, about 60 others throughout the world. We're rolling out specified developments in partner colleges. We hope to take on board more universities as we go forward. We are also working with universities in Bangladesh and Nigeria to supply full teaching programmes. We also train all our postgraduates how to teach.'

One Education librarian said the approach to teaching had changed during the three years that she had worked at the university. The most noticeable difference from her perspective was that teaching by librarians in the discovery and management of resources was much more integrated into the lecture programme. She also mentioned flipped learning specifically:

- 'In my three years here, yes. The librarians are coming to classes throughout the year. When I first came we just did induction classes and the odd lecture. Now I'm coming in at weekends and I'm often invited to lectures for last-minute support. It's recognised that students need more support as more of the materials they use are online. As a school, Education is involved in developing more resources and we do a lot of flipped learning, in which the students are given exercises to read or videos to watch prior to class, so that in class they can take part in a more critical discussion. It's 'homework, but backwards'. I work at weekends because so many part-timers come in on Saturdays in September and October.'

Another, from a Russell Group university, had also noticed recent change, but said it was not happening quickly:

- 'The timing of that question is very interesting, and I'm sure our academics can give you some good responses to this question. We have a strong School of Education, so we look at how teaching takes place and at pedagogical approaches. There is a lot of thinking about it, and some academics in certain areas use new methods, but I'm not sure where and how that happens. We didn't do so well in the NSS, so there is recognition of the need to be addressing the imbalance and teaching is being given a higher profile and there is more focus on a change of thinking about teaching as a core. There is certainly some encouragement to think fresh about the way academics teach and we have this policy of "every teacher a digital teacher". Lecture recordings have become a big thing, and these could actually mean a change of ways of teaching. However, is all of this happening quickly? I think not.' [RG]

Nursing

All the Nursing academics said their approach to teaching had changed; the introduction of and increasing emphasis on technology was a factor they all mentioned. One said she'd always been comfortable with using technology. All were using flipped learning to a greater or lesser extent (one said that lack of space was a constraint), but 'chalk and talk' was also mentioned (not pejoratively) by two respondents. Access to online content, simulations, MOOCs, lecture capture, online exam papers and intelligent use of the VLE were also mentioned. The need to teach creatively ('reflective learning' sessions following placements and encouraging students to publish were mentioned specifically) was raised by two respondents, one of whom said that now students were no longer provided with bursaries they should be treated more like customers.

- 'My approach is very similar to what it has always been, but I have developed additional areas of expertise across the years. I started teaching in 2006 and cut my teeth at Sheffield Hallam University. I guess I'm fortunate because at the time Sheffield Hallam was using a very *avant garde* method of teaching based on 'blended' lectures (with a strong technological element) and small group activities. We found that problem-based learning didn't work, but we introduced elements of simulated clinical practice and these were successful. At [this university] we don't have the same kind of facilities for simulation. We have to be more creative when we're teaching clinical, especially as we have to give more input to the whole cohort. However, we're very aware of the importance of small group activities. It is blended learning of a kind. I'm more confident

in my own teaching now – it's more fluid. However, although I'm quite creative, my favourite method is still 'chalk and talk'. I know my students enjoy what I do. One thing I've developed is more specific reflective learning sessions. They offer an opportunity for students to come in from placements and discuss/debrief/problem solve. This is a particular area of development that has evolved. But when we have timetabled sessions we have to be prepared to have a more structured approach to back up the learning.'

- 'In terms of building my resilience as a senior lecturer, I've learnt to manage my workload differently...'"
- 'Definitely. It's become more about creativity and is much more student-focused. For us, it is new that the student is a customer as we are in our first year of removed bursaries for students. We use flipped learning, encourage student research and try to make the lectures more vibrant and more alive. We're making lots of efforts to get rid of the typical theory-practice gap. The encouragement of students to publish is something we are very active in. We have a strong link to the RCNi and have frequently someone coming in and talking to the students about publishing with them. In the last year we had a total of six undergraduates (interestingly, most of them were second years) who published with the RCNi.'
- 'The main change is the use of more technology. We use more online content and simulations, and also things like MOOCs. This shift has happened especially in the last few years, where also exam papers are now online. The concern about the quality of teaching is there, but has been continually emphasized since I started working here 15 years ago.'
- 'It's definitely changed. Technology has made all the difference, particularly the VLE. We're using media to enhance teaching. We've embraced the flipped classroom. We give the students the key facts before the lecture and we use lecture capture. But we still give a large number of lecture hall lectures and a smaller number of seminars. There is a resource issue. We can conduct Moodle conversations online – this often works better for big modules.'

The Nursing librarians agreed that teaching had become more interactive and technology-focused. One said that she was deeply involved in the lecture programme and two said that they contributed to flipped classroom teaching. This was an indicative comment:

- 'The students spend a lot more time building practical skills in the skills lab. Much more flipped learning is going on. Often this consists of pre-set (prior to the lecture) reading or online quizzes for students to complete before a session. The session will then build on this. Rather than teaching *knowledge*, we're trying to teach *understanding*. PowerPoint presentations can be prepared to teach the students the basic stuff, then the sessions will be used to teach them how to apply it. The VLEs are used for this too. Like most of the librarians here, I'm also expected to teach and I use this evidence-based approach when I'm teaching too. The other strand of my teaching, massively, involves showing them how to use the systems and online resources we have here. I try to take a flipped approach with some of that too. I ask them to watch a video giving basic instructions, so we can spend more time "doing stuff" face-to-face. Nursing perhaps doesn't lend itself as much to the flipped approach as the other subjects you're interested in, but we have embraced it.'

Psychology

All the Psychology academics thought the approach to teaching at their institutions had changed. One said this applied to the whole of the HE sector and was particularly relevant

when keeping up with new technological approaches to pedagogy. Endorsing this, another said that the students expected teaching to be technology-led, and for most materials to be posted on the VLE. He also said that academics were acutely conscious of the grades students would give them in MCQs when considering which types of learning resource to use. One said that she was working on her teaching skills on a personal level; also, there is a greater requirement to develop her own teaching materials, which she finds challenging because this is time-consuming, and she's also expected to commit time to research and administration as well as teaching.

- 'The whole HE sector has to be fairly flexible and dynamic. We've always supported innovative teaching, especially technologically advanced learning. This is never going to be finite, as the technology itself changes. Universities have to meet the demands of and engage with this. The emphasis on teaching hasn't changed: we've always been teaching-focused.'
- 'Yes – on a personal level, I've been working on my teaching and I want it to become more enhanced. There's a general drive here for improving teaching quality. There's a lot of focus on resources and trying to deal with issues that weren't dealt with before – the way lectures are provided, the relationship of modules to each other, the resources provided to support them. There's been a complete upgrading of the degree programme and increased support for students. We're told to create more of our own teaching materials, but there's no time to produce them. Once I've created something, I try to keep upgrading it on a rolling basis for as long as possible. When I was an undergraduate here myself, the standards were quite different. The course has been revamped and the number of optional modules has increased exponentially. We have to please the British Psychological Society (BPS), as well. This university still emphasises the quality of its teaching, but every change that involves saving money makes it more difficult for us to improve the quality.'
- 'It's definitely changed. There has been an increasing emphasis on teaching, and there are more teaching criteria in our annual review. Students fill in MEQs, and because they evaluate you and you are being measured by that, it makes you more focused on the way you teach. The students desire and expect technology-enhanced learning and use the VLE as their main source for learning. Therefore, in order to compete you have to have this as a university.'
- 'There is a change across the sector, which is coming through to us quite slowly. It is really depending on the person and very person driven. Newer staff tend to try more new things than people who have been doing it "their way" for a long time. The university seems to be valuing teaching more than in the past; there is more emphasis on it and there are more career-paths now through teaching.'[RG]

A Psychology librarian said that she thought her university had been ahead of the curve in using an innovative variety of resources when she first started working there.

- 'I've been here for two years. I don't necessarily think it's changed in that time. [This University] has always done fairly well at embracing new trends in teaching. We've always used labs, flipped learning, quiz software, virtual tutorials, etc.'⁴²

Sociology

⁴² It's perhaps worth mentioning that one of the academics at this university (not one of the ones teaching Psychology) said the labs were dilapidated and no longer fit for purpose.

One of the Sociology academics said she hadn't been teaching for long enough to be able to say whether the approach to teaching had changed. The others all said there was much greater use of technological applications. One pointed out that this involved more student training, to enable the students to learn how to use sophisticated applications and get the most out of them. Another of the academics said that, although Sociology was traditionally an academic subject, the focus now was on teaching students so they developed in a way that would help them to secure jobs once they graduated. He also said that students who come from modest backgrounds don't necessarily want to be subjected to a lot of innovative teaching: they often respond better to more formal teaching methods.

- 'The basic approach to teaching has remained the same. The lecturer gives students a lecture on a topic, then they go away and study it. But the way in which it's done has changed, and involves more independent use of electronic resources, which in turn means more emphasis on study skills. It used to be the case that because students didn't have the correct study skills, we tailored what we taught to what they were capable of doing. Now it's the other way round: we teach them what they need to know in order to make their studying more innovative and as effective as possible.'
- 'Yes, it has changed quite a lot. There is much more emphasis on online learning and there has been a lot of investment in technology. This has not only included online content, but also systems, teachers' portals, etc. ... The degree of new learning methods used varies, but there is encouragement to use new methods. The concern about teaching standards has a lot to do with it and is ever more present.'

'We need to make Sociology relevant to employability – obviously the link between the academic subject and employability isn't as strong as it would be for a subject like Nursing or Business. Although we recognise the dangers of seeing the degree in too narrow terms – it isn't just about employability – we're trying to set up combined programmes that will help to guide them and make them more eligible for their choice of career. Combining Sociology with Psychology or Criminology can help them, for example, become probation officers, or convert to law degrees. How does this affect teaching? Well, I can't speak for the university as a whole, but although we've introduced quite a lot of technology-led innovation – in some academic areas more than others – there hasn't been much staff development to support it. And I wouldn't say the students are crying out for innovative teaching. They're happy with a more traditional approach and often regard this as "real" teaching. What has changed is that we're reaching out more to them – nurturing them is one way of putting it. We need to listen to them.'

Types of resource used

(see section ["Types of resource used" on page 12](#))

Business

In the SurveyMonkey surveys, 3 Business subject librarians, 56 Business academics and 9 Business students responded to the question 'Which of the following resources are undergraduates encouraged to use?' The answers are shown in the graphs below.

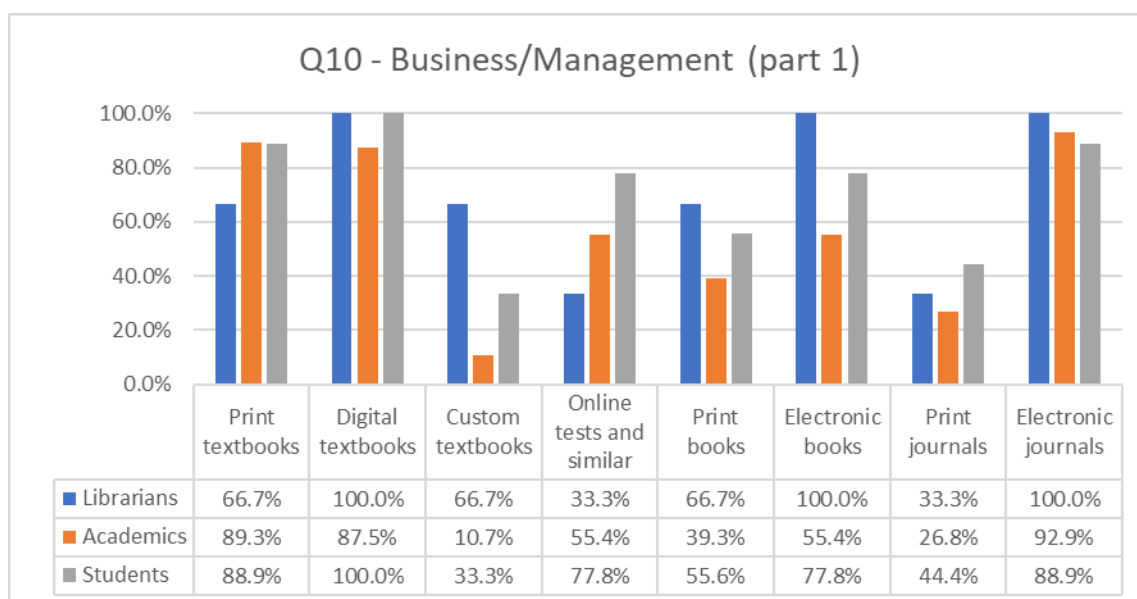


Figure 27: Q10 - Business (1/2)

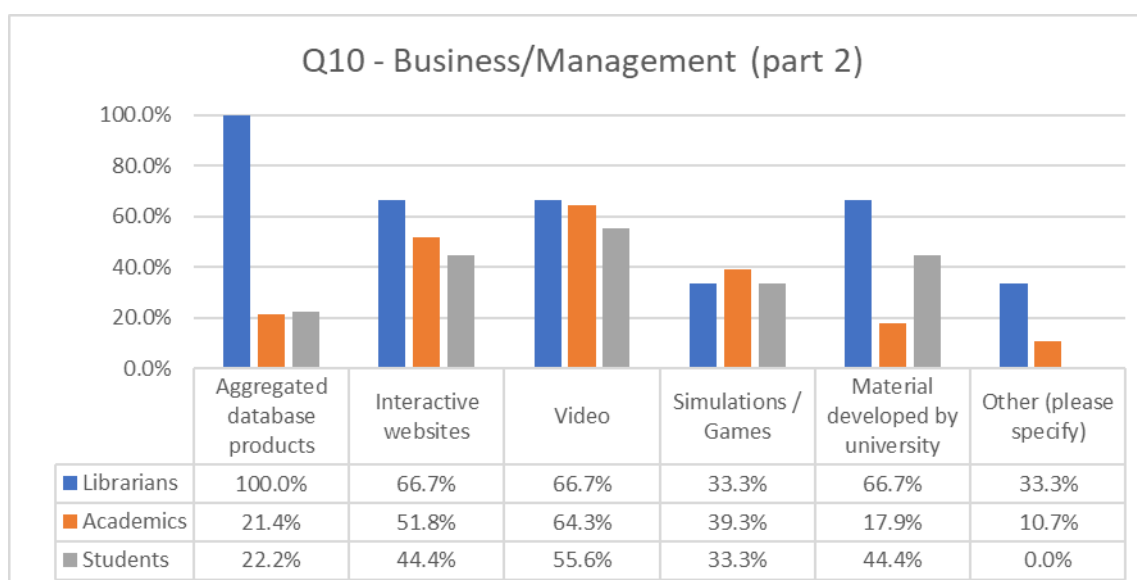


Figure 28: Q10 – Business (2/2)

All but one of the Business academics interviewed said they encourage students to use textbooks. However, all made it clear that they recommend a large variety of resources. Journal articles are important, though they did not put as great an emphasis on them as some of their colleagues in other disciplines. All said they used technological resources, including practitioner-based learning applications, YouTube, commercially produced videos, online games, online learning suites, case studies and online materials placed on the VLE. One mentioned an ‘Economics console’ was in use at the Business school. All liked online activities and seemed to be proficient in the use of them.

One academic was concerned that the students should understand the difference in quality between using the ‘library search engine’ (i.e., the OPAC) and Google – although the library in question does make its holdings available through Google, as many academic libraries now do. It was interesting that the academic did not know this; several librarians said they were anxious their patrons knew that the products they supplied were paid for.

All the responses demonstrated innovative and multi-faceted approaches towards teaching. The following was the most comprehensive response given; the other responses collectively included most of the elements identified in it:

- 'Print and online textbooks are where we start, but we encourage the students to move away from that soon. I encourage the students to use everything, but after the textbooks the emphasis is on journal articles. I talk to them about the library search engine and in one of my early lectures I will speak about the library search engine versus Google. They need to learn to be a scholar; critical evaluation is key in our subject and it needs to be learned, but that also is the case for material published by renowned publishers! The quality differences of books can be vast even within one publishing company and the students need to learn to recognise the differences. We use videos for group work and I like to use games from L&D packages where the size of class allows me to. Occasionally, I might create games myself – for example, before Christmas I invented a 'Q&A Secret Santa' where students put questions anonymously into a box and then each student had to draw one of the questions and try to answer it. At the beginning of a semester or module, I might ask the students to write a "learning passport" and they need to comply with certain criteria throughout the semester to be granted the visa in the end. Things like that make the learning journey more fun and interesting. I have used lecture capture and still sometimes do, but the feedback on this hasn't been too positive, because the way I do my lectures, they tend to only work if you are really present in the room.'
- 'Usually, I work with a combination of two core textbooks, journals and case studies. However, I also use video and I'm very interested in simulations but haven't found the right resources for my topics yet.' [RG]
- 'I encourage them to use a mixture of everything. Some modules don't have a core textbook, but some do, but journals are always an important part of the teaching. In those modules with a core textbooks, we use more and more digital textbooks because they are easier for accessibility. However, they are usually based on a print textbooks, so it's just a question of format really. For the third years, I also use a lot of YouTube videos to illustrate samples and occasional simulations or games.' [RG]

The Business librarians pointed out the discrepancy between resources that students are steered towards and the ones they actually use, which other results in the survey also highlighted. The librarians said that courses were textbook-focused, whereas they were trying to promote a wider range of resources (which is somewhat different from what the academics said). The librarians also said that on the whole it was more economical to provide electronic resources than print; one librarian – from a university that has always been in the forefront of electronic resource development – said that there was incontrovertible evidence that students prefer print.

- 'Do you mean what we encourage them to use or what they are actually using? We certainly encourage them to use digital textbooks and electronic journals, but also aggregated database products and videos/simulations where available. We are trying to come away from actual textbooks and delve deeper, especially in Business courses. But because the teaching is mostly geared to textbooks, that's what students tend to use. However, the accessibility of the main textbooks puts a huge pressure on the library.'
- 'To be honest students are encouraged to use any and all resources which are relevant – the academics (and students) really don't think about format. However, we do have an e-first policy in the library.'
- 'We prioritise books and journals. A lot of the journals we use come in database packages such as ABI Inform. The students want print books. We do have a PDA

system which allows students to ask for books, but in electronic format. If we get more than three requests for the same title, we will purchase it. The students are definitely not pro e-books. Academics like journals because they help with their research. They need some very expensive financial information and database products, both for research and teaching; the Business School contributes to the cost of these. As far as I know, no one is developing OERs: they don't have time.'

- 'They are encouraged to use any resources from the above. The one I am least aware of is simulation games. It really depends on the course and lecturer. There is an increased interest in digital and video, but they also use news, external reports and other resources. Textbooks and journal articles, however, are still pretty core. Some lecturers limit their reading lists to peer-reviewed materials only. [RG]

Education

In the SurveyMonkey surveys, 5 Education subject librarians, 73 Education academics and 9 Education students responded to the question 'Which of the following resources are undergraduates encouraged to use?' The answers are shown in the graphs below.

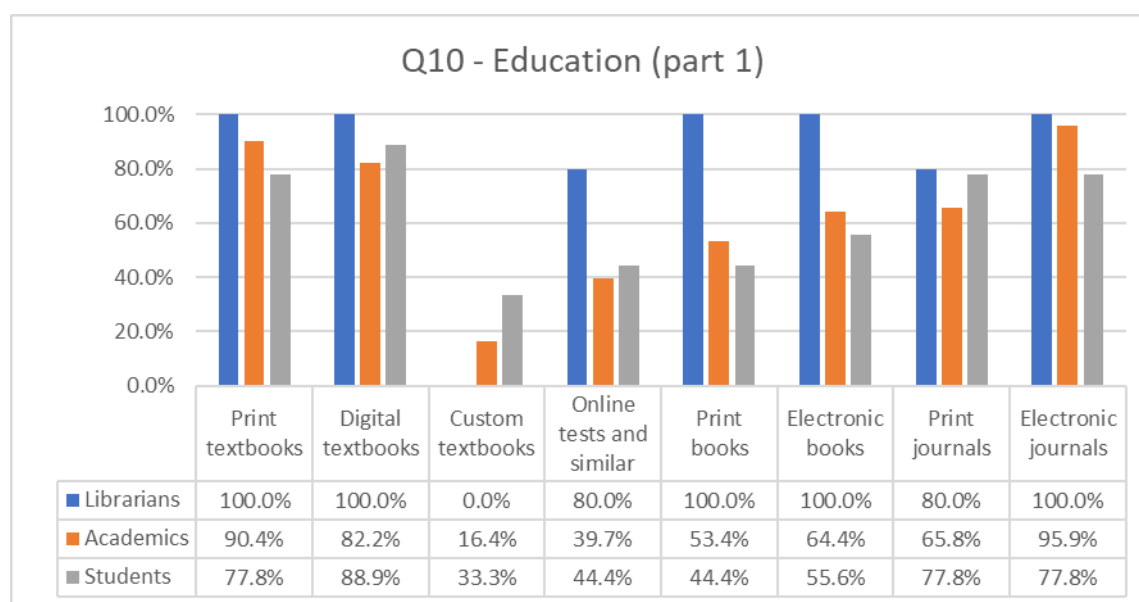


Figure 29: Q10 – Education (1/2)

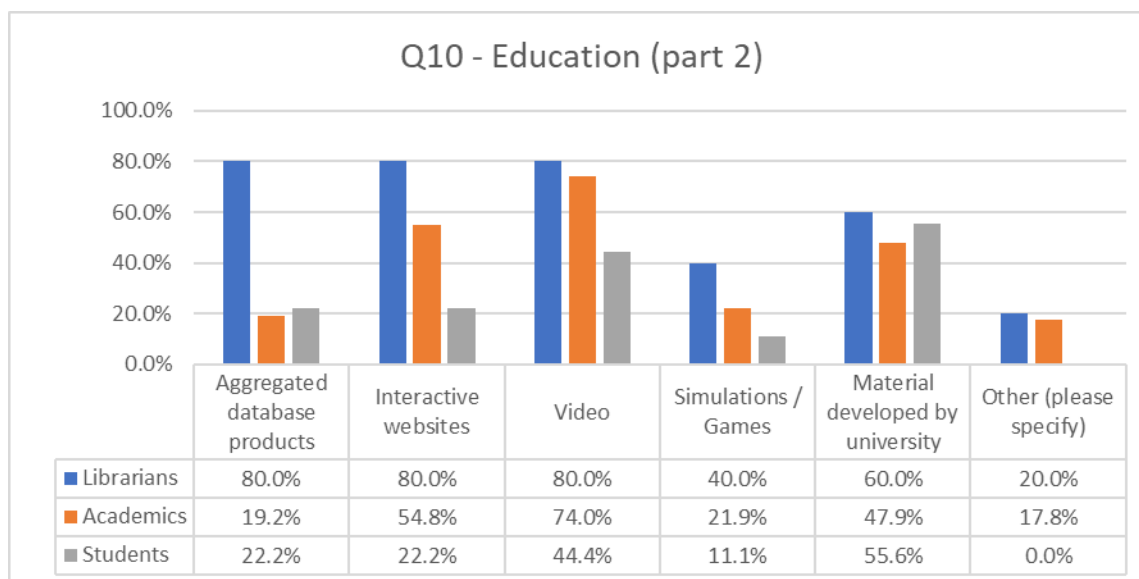


Figure 30: Q10 – Education (2/2)

All the educationist academics interviewed indicated that they use a wide variety of resources, including innovative resources developed for use in the schools. One emphasised the importance of e-textbooks (and lamented their cost!) and another the importance of journals. Once again, the need to ensure that different learning styles are catered for was mentioned.

- 'We use a wide range of resources, including innovative school-teaching resources. The biggest change in my experience has been the switch to e-textbooks (e-journals as a resource are well-established). We need e-textbooks because students spend a lot of their time out in schools. They want access to textbooks 24-7, but they may only come in to the university once or twice a week and they struggle to get to the Library. Through our links with publishers, we're trying to get them to produce more e-textbooks. The costs of these are astronomical though. The Library here is amazing: always cutting-edge.'
- 'We try to use a range. As a teaching team, we understand that people learn in different ways, and we like to provide as many opportunities as possible.'
- 'Journals, both print and electronic, are the most valued learning resources used here. They certainly make all the difference from Level 6 onwards. There is (or should be) a natural progression from books to journals early in the career of an undergraduate. At the Russell Group universities, most of the staff are research active and know they need to publish in journals. Many academics are not necessarily tied in to journals, but in cutting edge subjects journals are essential because they're much more up-to-date than books. Of your subjects, I'd say that Health, Education and Business are more books-orientated than Psychology and Sociology, which definitely use journals much more almost from the start. The more academic/less "professional" – i.e., vocational – a subject is, the greater the reliance on journals. At [this university] the goal is to get all academic staff to do research and publish in journals.'

[Librarians]

- 'There is a visible trend to online lectures and lecture capture. But apart from that, we do recommend the use of print and digital textbooks as well as print and digital books and journals. In the case of journals, almost exclusively digital though. We have a good provision of database products and encourage students from Year 1 on to use these. We also have some video databases which get some good usage.' [RG]

Nursing

In the SurveyMonkey surveys, 3 Nursing subject librarians, 51 Nursing academics and 16 Nursing students responded to the question 'Which of the following resources are undergraduates encouraged to use?' The answers are shown in the graphs below.

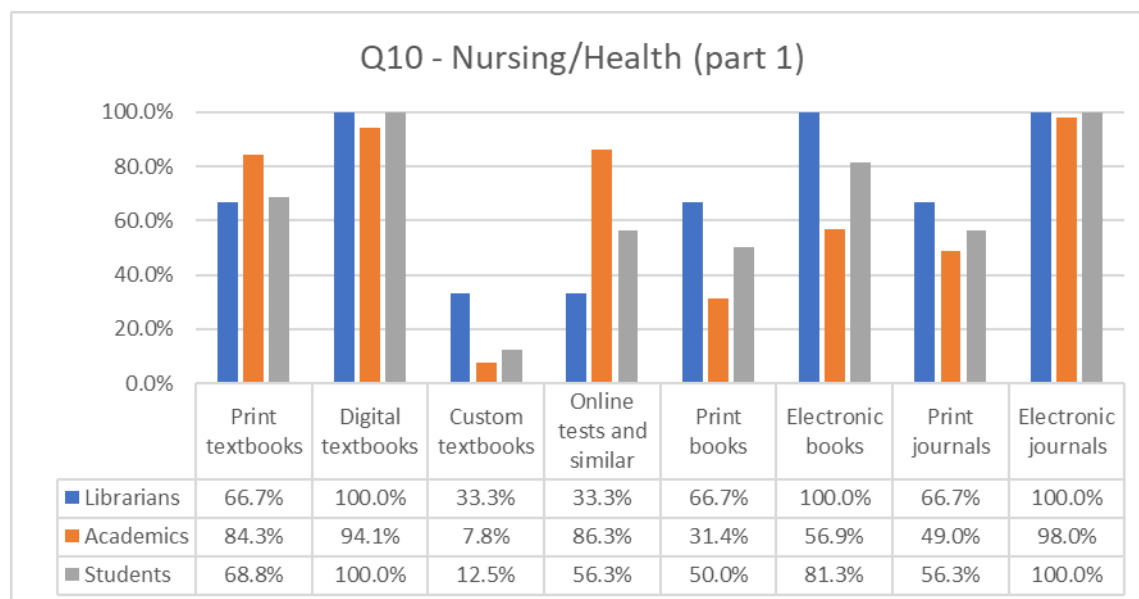


Figure 31: Q10 – Nursing (1/2)

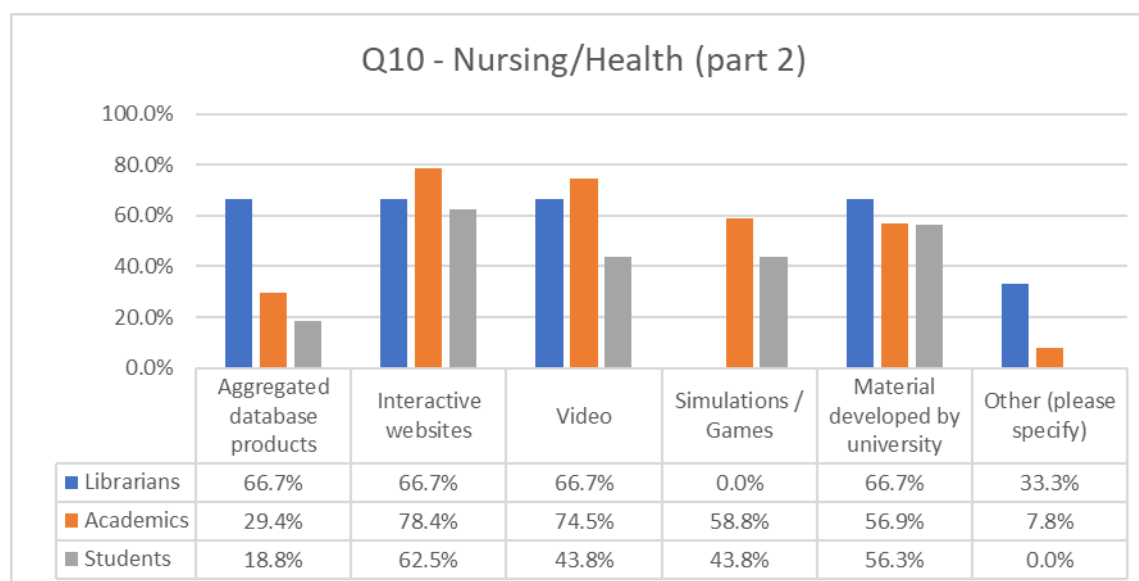


Figure 32: Q10 - Nursing (2/2)

All the Nursing academics interviewed said they encouraged students to use textbooks – either print or digital – but with varying degrees of emphasis. One said that she preferred journal articles because they are more up-to-date, though textbooks are needed for ‘underpinning information’. All the others indicated that textbooks occupied a more central role in the resources they recommend students to use.

- ‘Print textbooks and digital textbooks are both used extensively at first. Electronic textbooks are favoured by the Library if they’re available. There’s a strong student focus on textbooks: if we say a text is essential reading for all students, they’ll read it.’

- 'We sometimes use textbooks – whether that is in e or print depends on the students, whatever they prefer. I tend to work with a variety of titles, but bear students' finances in mind.'
- 'We teach a lot with textbooks; I would like to use more digital ones, but the licences for those tend to be very expensive, so we are constrained by the university budget on these.'

Journals were important to all the Nursing academics and especially valued for their currency, as already mentioned. (Some key Nursing journals are apparently still only available in print.) The Cochrane database was mentioned as a key resource – one respondent described it as a 'bible'. Interactive online learning packages, featuring quizzes, etc., are also used, but not frequently – two of the respondents said their institutions could do more with these. More informal online materials are used extensively – e.g., YouTube demonstrations, online videos and podcasts. Some material is placed on the VLE. Simulations are particularly valued. Nursing academics frequently develop their own teaching materials, but these are not OERs – they indicated that they produce them primarily for their own use, perhaps to share with immediate colleagues – and all said that customised textbooks would not be useful to them:

- 'Material developed by others is only of limited usefulness unless it covers the exact topic we want to teach. We're proud of our own work – both lecture preparation and research – and want to find ways of integrating this into our teaching resources. In Health we have struggled to find resource models that will work with interdisciplinary teaching and shared learning. Whole groups of resources are not used to best effect because genericised learning means staff specialisms are lost to students.'

Some of the Nursing librarians emphasised the importance of textbooks, especially print ones, though, like the academics, they also said that journal articles were very important. At one university, two Nursing librarians said they recommended a wide range of resources, including some platforms, such as ResearchGate and academia.edu, that provided published material 'free' to users. At this university an emphasis was placed on helping Nursing students to find material that didn't need paying for (by anyone, including the Library).

The following are some indicative comments:

- 'Print and electronic books are equally important. Even for undergraduates, journals are very important, but I'd say they were second to books.'
- 'We've got a cross-search engine, which I always encourage to use as a starting point. Additionally, students are encouraged to use online databases and Google Scholar, but I also show them how to use sites like Academia.edu and ResearchGate for their research. The students use videos that are freely available on the internet, but we, as a university, also create quite a lot of video content ourselves.'
- 'I think the undergraduates use what they're told to use. They just stick to their reading lists. Sometimes the format is not important; it's the content they're interested in, and it doesn't matter whether that's in "e" or in print. In Health, each course has its own reading list, and it can contain any of the above.' [RG]

Psychology

In the SurveyMonkey surveys, 5 Psychology subject librarians, 18 Psychology academics and 49 Psychology students responded to the question 'Which of the following resources are undergraduates encouraged to use?' The answers are shown in the graphs below.

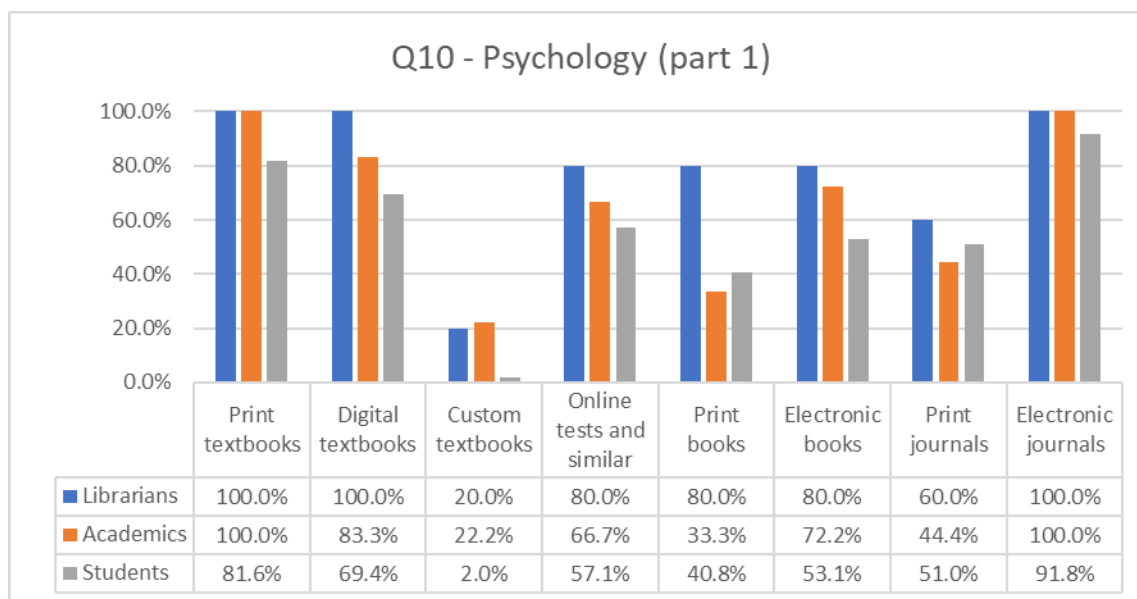


Figure 33: Q10 – Psychology (1/2)

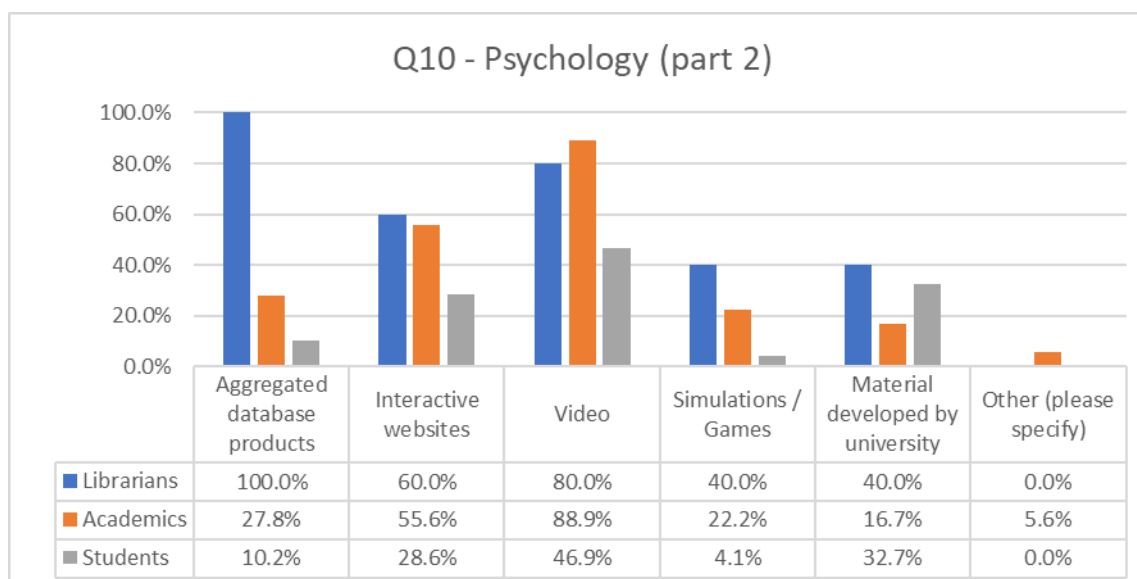


Figure 34: Q10 – Psychology (2/2)

Broadly, the Psychology academics interviewed agreed about the types of learning resource they encourage students to use. Across the whole of an undergraduate degree course, they said that journals were the most important resource; however, two said that textbooks were the most important resource for first year students. One of the academics said they used a wide variety of resources, including various electronic and digital solutions; another mentioned that they digitised material themselves, including 'stuff we've printed'. (This university makes extensive use of the CLA's digital licence, including the more recently-introduced facility for universities to pay for additional material to that allowed under the blanket terms of the licence.) One of the academics said that online tests were used, but that he did not like multiple choice questions.

- 'We digitise our own material, including stuff we've printed. Students have access to hard-copy books. But above all we rely on online journals. We also use a lot of learning materials relating to methods: the Psychometric Library, software relating to experimentation.'

- 'The first year is more book-resourced. One of the best things about Psychology is its popularity – it commands large cohorts and therefore the resources that are available are plentiful and of high quality. Each module needs its own core textbook, and these are recommended for each. We provide journal readings alongside them. In Year 2 and 3 we introduce more scientific literature. Students can't get round using journal papers. We do use online tests, but these can be quite hit-and-miss – the question bank supplied with a textbook is not appropriate unless it relates exactly to the lecture. I don't like multiple choice questions myself – I don't think students learn from them – and they stand a 1 in 3 or 1 in 4 chance of making a good guess if they don't know the answer! We expect them to write more essays and reports and do more exams after Year 1.'
- 'There is a progression in what is being used: in the first year, I am likely to use one core textbook, but after that we encourage the students to use journals as their main source.'
- 'I encourage undergraduates to use all of these resources really. We often use e-book versions of textbooks, but also any other websites that look useful. Journals play a key role, and I also use videos.' [RG]

One Psychology librarian made no distinction of resource use by students in different years. She emphasised the broad mix of resources that the Library encouraged. She thought that journals were the most important resource but, like other respondents, said the students liked print:

- 'We use all of these kinds of resource, though some things, such as simulation games, are more driven by the departments than the Library. Across the board, e-journals are the greatest resource we have. As a Library, we want to ensure that we have e-books to complement the e-journals. Some students only come to campus once or twice a week and they want to be able to access stuff online. We encourage the use of electronic more than print, but they still gravitate towards print. OERs – we do develop resources, but whether they're "open" depends on your definition because some of them aren't made available outside this university. We are certainly developing in-house materials to share across different courses. The Library itself has courses on developing skills to get the maximum use from the resources. We encourage the use of Moodle for our own materials. Custom textbooks have dropped out of fashion – they can be both too esoteric and too inflexible, as well as expensive.'

This view was endorsed by a Russell Group librarian, who also said that print was popular, but added that this was also because not all [text]books were available digitally:

- 'It's probably a mix of things. We do use digital textbooks, but also chapters of monographs or single journal articles. We also encourage the students to use e-book collections like Oxford Scholarship Online and others. We do subscribe to some of the video databases, but I'm not sure how they're being used. In any case, we still use a lot of print. A lot of stuff simply isn't available digitally.'

Sociology

In the SurveyMonkey surveys, 3 Sociology subject librarians, 19 Sociology academics and 2 Sociology students responded to the question 'Which of the following resources are undergraduates encouraged to use?' The answers are shown in the graphs below.

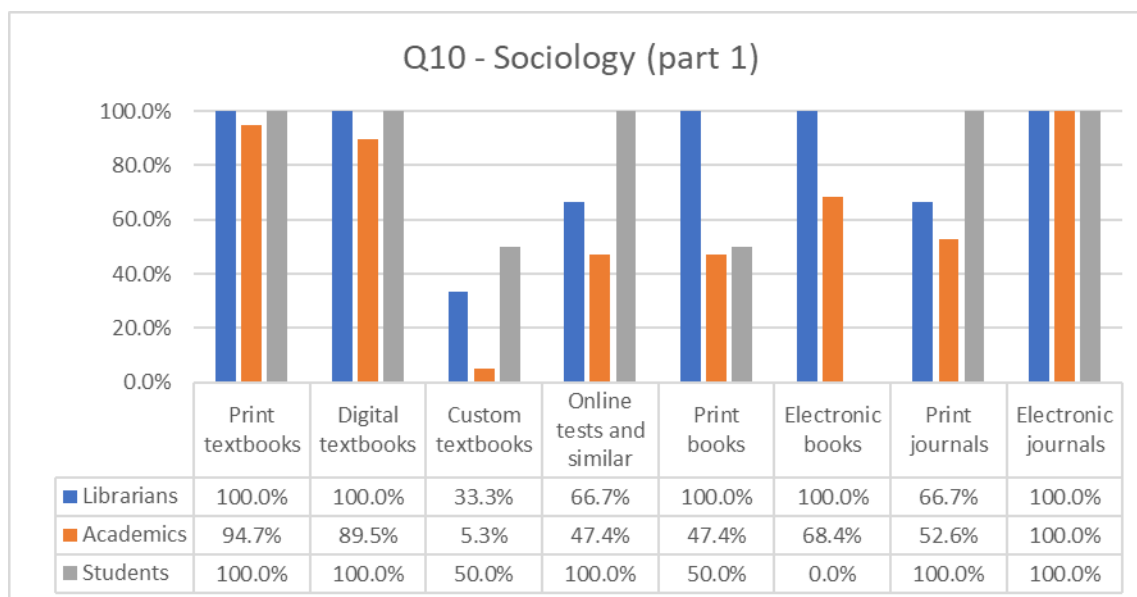


Figure 35: Q10 – Sociology (1/2)

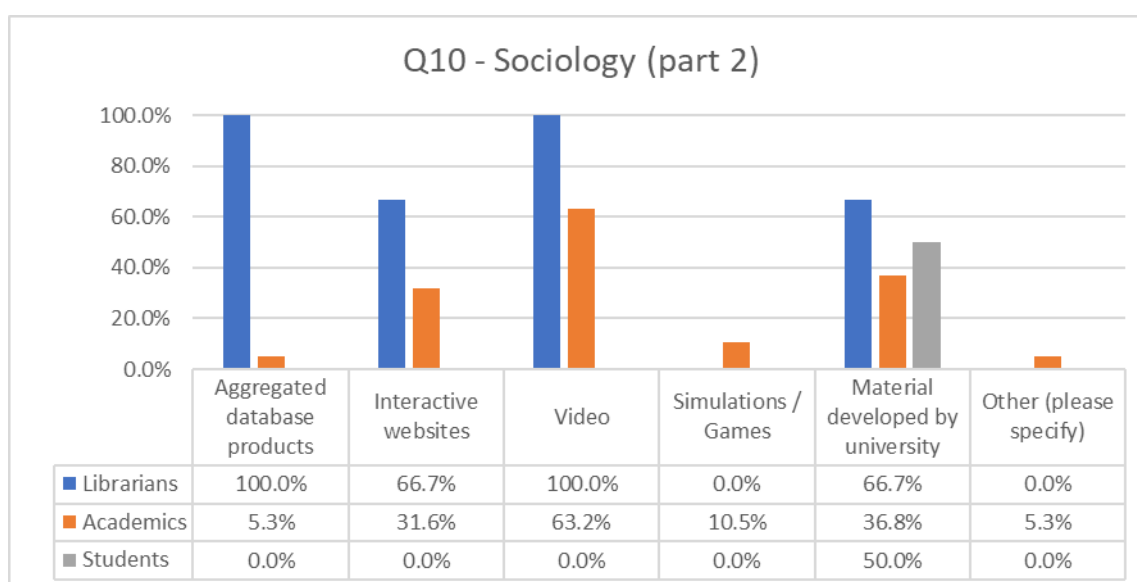


Figure 36: Q10 – Sociology (2/2)

The Sociology academics interviewed generally said the primary resource materials they encourage students to use are textbooks at first (though one said she doesn't use textbooks at all), then journal articles, supplemented with various online applications – videos, interactive websites, podcasts, database products and other forms of online information, including material published by the government and NGOs. Some were using innovative technological products that have only just been developed – such as an Artificial Intelligence resource which enables the students to 'ask' a famous philosopher a question – and some were developing their own materials, although not as OERs – more for use with their own students only. One explained how he posts such material on the VLE. Interestingly, one academic recommends journal articles because 'they are shorter and easier to digest'; another thinks that it is the 'more research-minded' students who most benefit from journal articles.

- 'I encourage my students to use a mix of resources. I certainly recommend print and online textbooks, (electronic) journals, some book chapters, but also videos and sometimes material that I have developed myself and put on the VLE. I personally don't tend to use simulation games or interactive websites very much, but I know that

the students use interactive websites themselves. I also don't use online tests, but I am aware of many other lecturers who use them at times.'

- 'Journals would be the first ones to be named here. They are shorter than books and so easier to digest. But ultimately, I would guide the students to whatever is relevant on the module. That can include books, e-books, journal articles, but also videos or other media material to contextualise. Recently, I told students to watch a BBC podcast which was very relevant to what I was teaching. I don't use textbooks – in the three years of my teaching, I might have used a textbook once.'
- 'I mostly use print textbooks and electronic journal articles for first years and some database products. However, we try to wean them off textbooks as soon as possible. We don't believe that students are here to absorb someone else's knowledge; as soon as we can, we try to make them more research-minded. But print textbooks are necessary for years 0 (extension students) and 1. We do need a decent textbook for extension students. But all students should spend at least two years on research-based work, using journals and database products. My students also use a lot of published and non-published government and NGO information. These change the landscape of learning resources: they sit somewhere between traditional academic and applied. We need more standard textbooks – e.g., Giddens – to be available in digital format. Print books are heavy and often contain unnecessary chapters. They're too unwieldy to carry around. If we do get into apprenticeships, these students will probably also need something different from the standard textbook. There would be resource implications for such students – as they would spend so much time out in the field, they would need resources that explain key concepts and these resources would have to be digital.'
- 'Every one of the modules has a reading list. We use reading list software – it's called My Reading – and it's linked to the library catalogue. If the resource is in the catalogue, it's linked electronically to the reading list. For online books we provide the link, so students can access them without going to the Library. We reference online journal articles in a similar way. There is an increasing emphasis on electronic resources. The reasons aren't just economic: lots of students prefer to work off campus and only come to the university for lectures. With regard to videos, interactive websites, simulations – we use bits and pieces, not much. It's an area we probably should develop. I do use interactive software in one of my modules, and I encourage the use of resources such as YouTube. Some of my students have created online "how to" guides to help others. We have a film module – The Sociology of Film and Cinema – which uses a similar method. I don't use the web as a resource for much except assessment. The university has a very small initiative involving the development of interactive software for Statistics. Someone has also developed an Artificial Intelligence resource for Philosophy. Different famous philosophers (some dead) are represented as avatars. They spent some time developing it. It uses voice recognition – you can ask, e.g., Wittgenstein, a question and "he'll" respond with a bit of text from his work.'

The Russell Group Sociology librarian interviewed was less keen on interactive digital resources:

- 'I recommend a mix of all of the above; what I don't do is recommend interactive websites or simulation games. However, I know that some lecturers do. Obviously, there is a big variety but generally I would say we use a lot of videos. We also have our own e-reserve where we keep scanned chapters of journal articles in a kind of digital course pack and students use that a lot.'

Have the types of resource used changed?

(see section [“Have the types of resource used changed?”](#) on page 16)

Business

In the SurveyMonkey surveys, 3 Business subject librarians, 51 Business academics and 8 Business students responded to the question ‘Has there been a change in emphasis/importance/prioritisation of the resources you’ve identified in the question above? If you believe there has, please describe briefly what type of changes have occurred.’ The answers are shown in Figure 37 below.

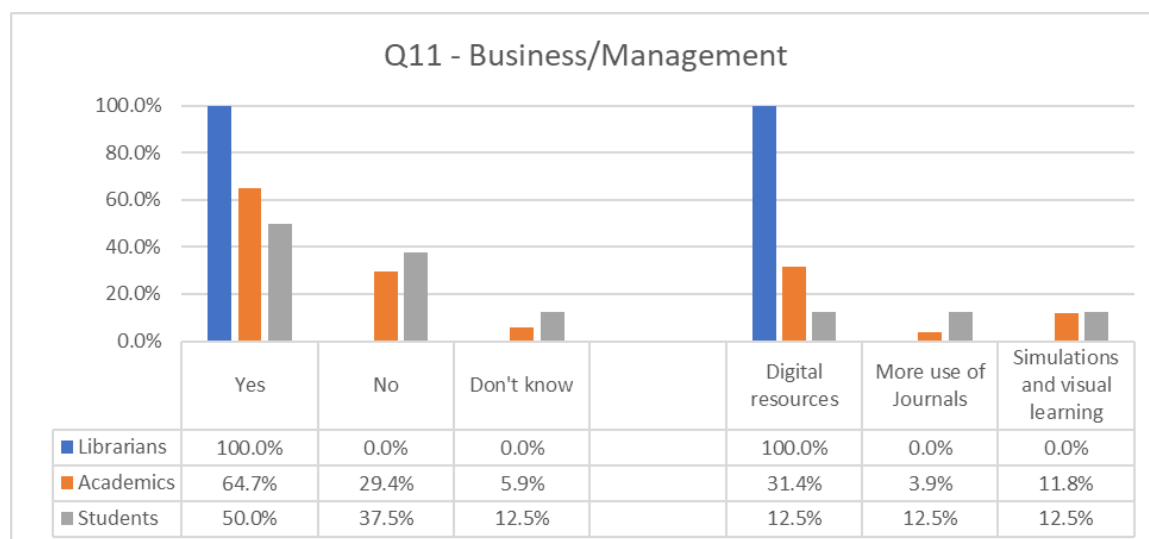


Figure 37: Q11 – Business

All the Business academics who were interviewed agreed that there had been a change of emphasis, and that it involved using more electronic and interactive online material and placing less reliance on print. Some attributed this in part to a clear mandate from the university to use more online technology; others said that it was the only way to teach larger groups effectively. One said that using a variety of activities within a lecture, as well as outside it, was important to ensure that students weren't bored. One of the academics said that students still prefer print, but don't want to pay for it. One highlighted one of the drawbacks of flipped learning: that only the most motivated students are prepared to do preliminary reading before the lecture.

- ‘Certainly, there has been a change and more interactive material is being used. Particularly as we have more constrained resources in terms of staff/student ratio, interactive learning materials deliver better learning outcomes.’
- ‘We’ve moved away from print... occasionally students need a book, but academic journals are more important. Students like books but don’t like to buy them. They know they can get lots of information online. I don’t know how much longer print books will last, when they can get much of what they need from Google and free chapters.’
- ‘It’s good to have different resources to use in class to attract their attention. I recommend that they read something I’ve specified at home before the lecture, to improve the discussion, but most won’t do this!’
- ‘What’s interesting is that if you include something in the reading list, at the post-1992 university, a small number of people will read it. Here, all the students will read it. Therefore, I’m a bit more careful what and how much I choose to put on reading lists.’[RG]

- 'The main change is that everything is digital now. Students also increasingly expect the use of lecture capture and they use the lecture slides, which they download from Moodle.' [RG]

The Business librarians said that they thought they were the ones who were encouraging the use of more innovative resource materials and that they had always done this, implying that the academics were not always as quick to promote innovative resources as they were.

- 'I can however see an increased use of interactive resources (videos, gaming etc.) in Business studies.'
- 'We're beginning to see requests for more non-traditional resources – for example visualisations or similar – and we're keen for the Library to be the ones to provide them. If we're not careful, we will end up not being able to cater for the student's needs.'
- 'The main change has been a bigger move to online and video. There's also been a bit of a move to OERs, but that has been a small shift. We also work with custom textbooks, and would like to see those delivered online.' [RG]

Education

In the SurveyMonkey surveys, 5 Education subject librarians, 63 Education academics and 8 Education students responded to the question 'Which of the following resources are undergraduates encouraged to use?' The answers are shown in Figure 38 below.

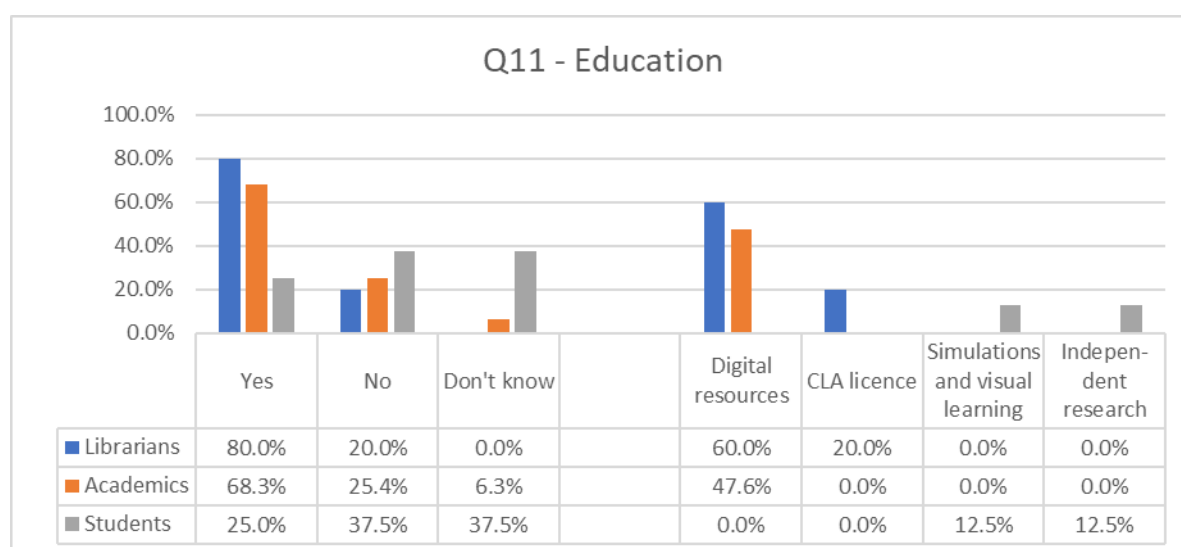


Figure 38: Q11 – Education

One of the educationists interviewed said that there has been 'a marked shift towards online resources generally' which was 'caused in part by student requirements, in part by technological advance'. One said there hadn't been much of a change, but then proceeded to discuss the development of a new textbook ('like its predecessor, it will be published by a traditional publisher') she is working on with colleagues (though she thought OERs to be impracticable).

The third stuck to his original comment, that journals are the most important and the most indispensable resource:

- 'From the second year onwards, journals should be the main resource. Sometimes it may be a combination of books and journals: the balance is subject-specific. Staff may come out in favour of working with online providers. Online courses have to be media-rich and we want them to be quite interactive. We have a relatively new member of staff (ex-UCL) whose view on online provision is that the university's value lies almost

solely in its online journals. The lecturer provides an introduction to the topic and then sends the student off to research further in journals. Books are not up-to-date enough and simulations quickly become outdated.'

All Russell Group educationists said there had been a significant shift to online; however, one of them said that what they are expected to use and what students actually use is not necessarily the same:

- 'Yes, there's been a shift in what we should provide, but there is no shift in what the students actually use! There is an assumption that students want or need more digital resources, but I don't think that's really what students want.'

One Education librarian made a distinction between monographs and textbooks (interestingly, she was the only respondent to do this: the academics tended to refer to all books recommended for courses as 'textbooks'). She also emphasised the central role the VLE plays as a teaching aid:

- We don't use textbooks in Education. We use monographs, mainly in e-book format. They're general books on Childhood Studies, Sociology, etc. We mainly use electronic journals, but some of the journals we use are only available in print – e.g., Early Years Education. We get the ProQuest/EBSCO type stuff through big deals. The VLE is the biggest part of the student learning online programme. Occasionally, I might put up lists or little quizzes for the students.'

Nursing

In the SurveyMonkey surveys, 3 Nursing subject librarians, 38 Nursing academics and 11 Nursing students responded to the question 'Has there been a change in emphasis/importance/prioritisation of the resources you've identified in the question above? If you believe there has, please describe briefly what type of changes have occurred.' The answers are shown in Figure 39 below.

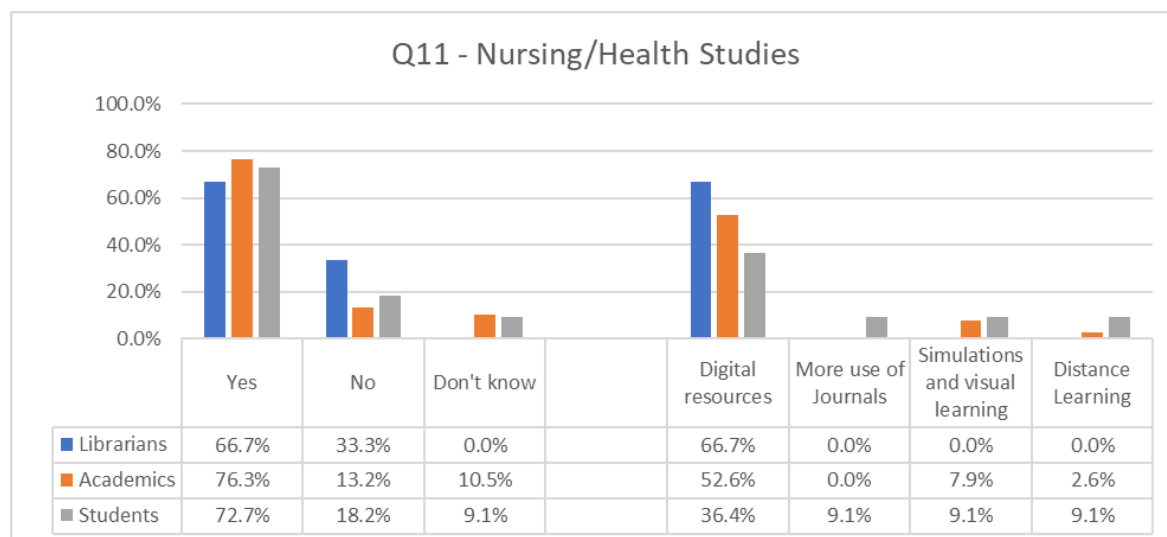


Figure 39: Q11 – Nursing

Other factors mentioned in the Nursing survey replies were emphasis on availability and accessibility (two academics); less willingness of students to read long texts (one academic); use of blended learning (one academic); case studies (one academic); and more focus on current research (one student).

All the Nursing academics who were interviewed agreed that there had been a change in emphasis of the resources recommended. Shifts in emphasis included use of more electronic/media products; more use of simulations; and greater use of journal articles, with the objective of getting students to formulate their own opinions, rather than reprocess information:

- 'I use a lot of my own journals abstracts, but also reflective excerpts and some use of theory. I believe in my students and think they are very capable, my job is to help them apply theory, not to regurgitate it for them.'

Three of the Nursing librarians said there had been a change in emphasis, with a much greater focus on electronic resources; two said that nursing academics and students still liked traditional resources as well.

- 'I think the focus is more on e-resources, but mainly because of their better availability.'
- 'Audio-visual media is generally used more; the students expect more interactive and media content and their attention span is not as great anymore. They all want information in a snappy way, ideally on their phones. They tend to be very tech-savvy.'
- 'There has been much more use of things like videos. Traditional stuff is still heavily used – nurses are big borrowers from libraries.'
- 'I don't feel it has changed. Books, journals and databases still dominate, sometimes accompanied with video. With more distance learning, there is more need for digital: journals are online anyway, but books are going that way, too. But I know that it's not always what students and lecturers want!'

Psychology

In the SurveyMonkey surveys, 4 Psychology subject librarians, 12 Psychology academics and 40 Psychology students responded to the question 'Has there been a change in emphasis/importance/prioritisation of the resources you've identified in the question above? If you believe there has, please describe briefly what type of changes have occurred.' The answers are shown in Figure 40 below.

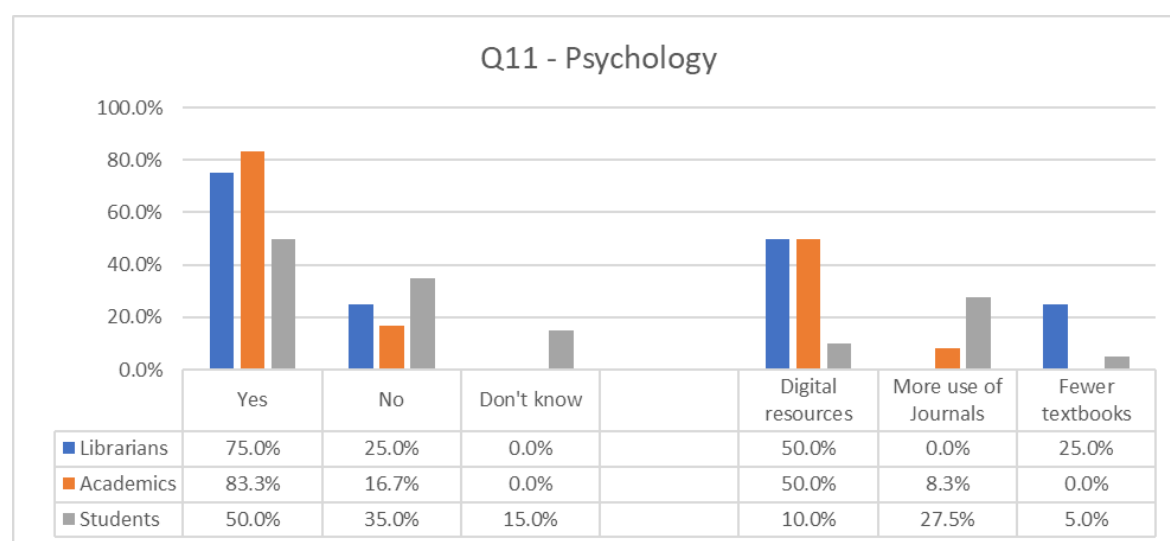


Figure 40: Q11 – Psychology

Other factors mentioned for Psychology were more focus on simulations and visual learning (one academic), increased importance of the VLE (one academic), more focus on current research (one student) and financial pressures of students (one student).

All the Psychology academics who were interviewed agreed that there had been a noticeable shift towards more use of technological resources, including informal applications such as YouTube clips. One said that academics were obliged to keep up with rapidly-changing trends because achieving and maintaining high levels of student satisfaction was an ever-present factor:

- 'There's a constant pressure to get things right, which means keeping on responding to different new trends. This increases every year. It includes things like timetabling, which senior management get involved in if there are difficulties, without really understanding the implications. We get comments from on high, such as "Your module needs more employability skills", etc. What do they mean by this? The demands of this kind of additional work don't match the terms of our contracts. There's a lot of concern in the department about module evaluations – some academics are really scared of what the students might say about them, which means the students want more and more on a plate. Sometimes I put my foot down and explain to the students that they're not babies; there's such a thing as educational standards and they have to meet these.'
- 'I've used more videos since the library has had a subscription to a video database. The problem with free stuff is that you need to worry about copyright. Also, websites have become better to be used as teaching resources. Students tend to want e-books, so I recommend these wherever I can.'

A Psychology librarian said that journals and e-books were the most-used resources and that the Library had encouraged the use of e-books, but that students will choose print if they can get it. In other words, despite encouragement by the Library at this university for students to choose all kinds of resource, those most heavily-used are the more traditional ones.

Sociology

In the SurveyMonkey surveys, 3 Sociology subject librarians, 14 Sociology academics and 2 Sociology students responded to the question 'Has there been a change in emphasis/importance/prioritisation of the resources you've identified in the question above? If you believe there has, please describe briefly what type of changes have occurred.' The answers are shown in Figure 41 below.

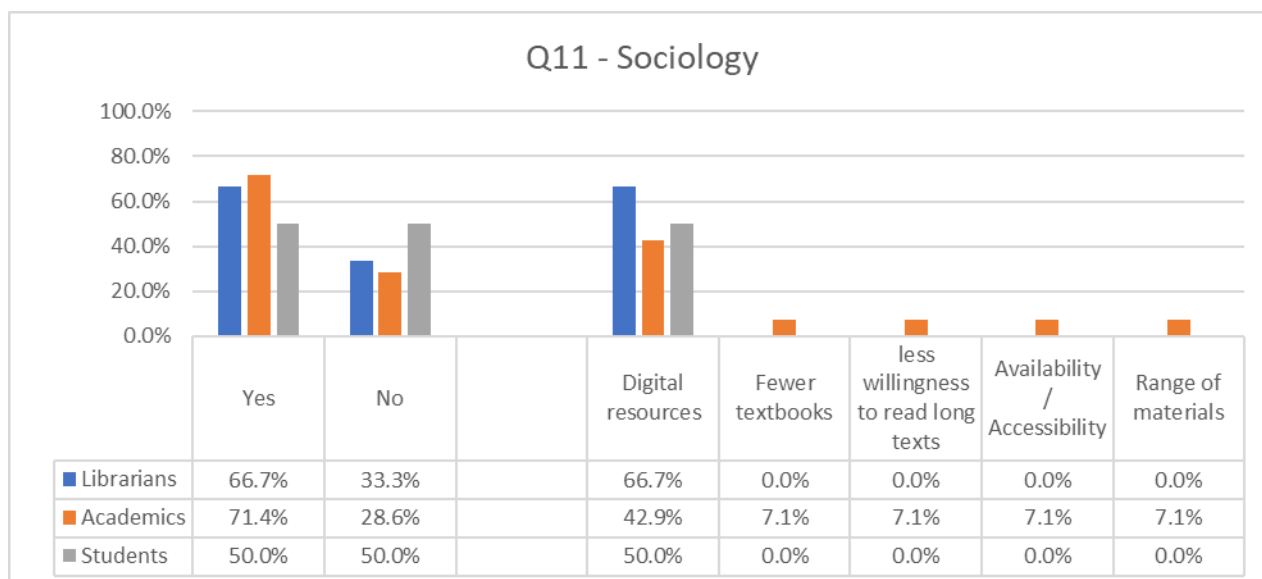


Figure 41: Q11 – Sociology

The Sociology academics who were interviewed concurred in saying that there has been a big shift in emphasis towards electronic resources and technological applications over the past few years.

Types of resources named in reading (resource) lists

(see section “Types of resources named in reading (resource) lists” [on page 19](#))

Business

In the SurveyMonkey surveys, 3 Business subject librarians, 57 Business academics and 8 Business students responded to the question ‘How are pedagogical resources represented in reading lists?’ The answers are shown in Figure 42 below.

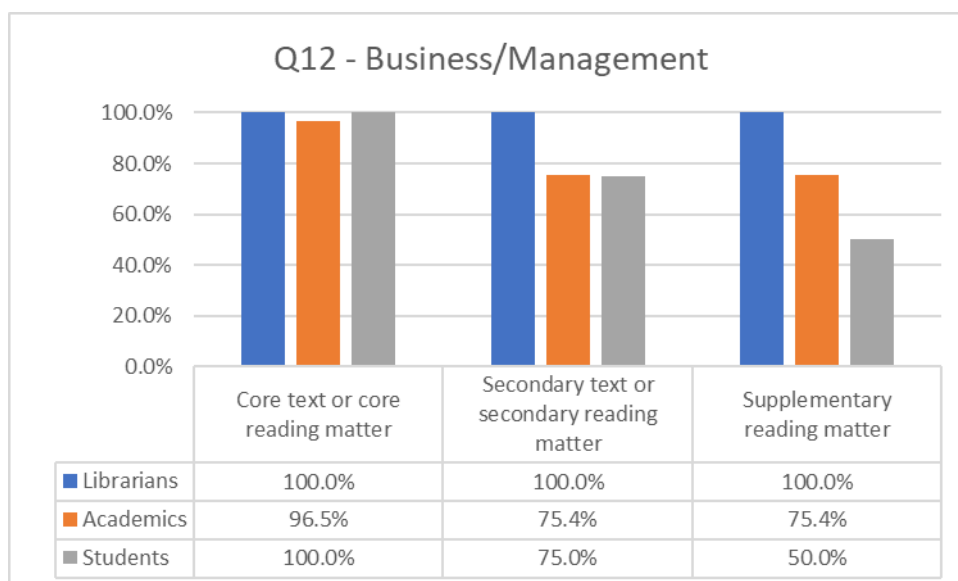


Figure 42: Q12 – Business

Three of the academics who were interviewed mentioned textbooks in the context of this question. Two said they would recommend a core textbook, if an appropriate one was

available. One said students prefer to be recommended a core text because they find it easier. Another said he'd prefer not to recommend a single core text. Two mentioned providing links to journal articles. Two described the process by which learning materials are linked to course modules (most course modules seem to have their own handbook). As understanding academics' approaches to resources classification are integral to achieving the objectives of this study, the responses to this question are quoted in full:

- 'I moved away from the traditional reading list, but I do do one and update it every year. I think the purpose of the university has changed. It's no longer about teaching what to read (and when), it is about understanding the broader concepts, and the reading list is secondary to that.'
- 'If there is a core textbook, then that's what I tend to put on the reading list. However, I will always try to give one or two alternatives to the core text for a more rounded picture. I think that's what students prefer, because it gives them a "map" of their learning journey. However, here at this university, I inherited all my modules, so the reading lists were already set and I just tweaked them a little bit. But you can see that every previous lecturer left a mark in the reading lists and some of them I had to re-design. When I do that, I try to set a focus on materials that engage the student more in the learning.'
- 'All the course materials listed are graded (we call modules courses and several courses make up a programme). Each course has to have a detailed syllabus, resources specification that lists core texts and expected learning outcomes, etc.'
- 'My reading lists mostly contain links to journal articles and websites and book titles. I'd say I normally put 10–15 items on a module. Some of these might be quite short pieces.'
- 'There is one core text listed for each module. In addition, another 4–5 books are included for "suggested reading". If a lecture is based on a particular journal article, I will cite this in the reading list. The students like to have a core text – they find it easier; it helps them to know where they are.'
- 'Usually, two core textbooks and some additional reading.' [RG]
'A typical reading list would include 1–2 textbooks as core or required reading, and then some additional reading.' [RG]

Education

In the SurveyMonkey surveys, 5 Education subject librarians, 79 Education academics and 8 Education students responded to the question 'How are pedagogical resources represented in reading lists?' The answers are shown in Figure 43 below.

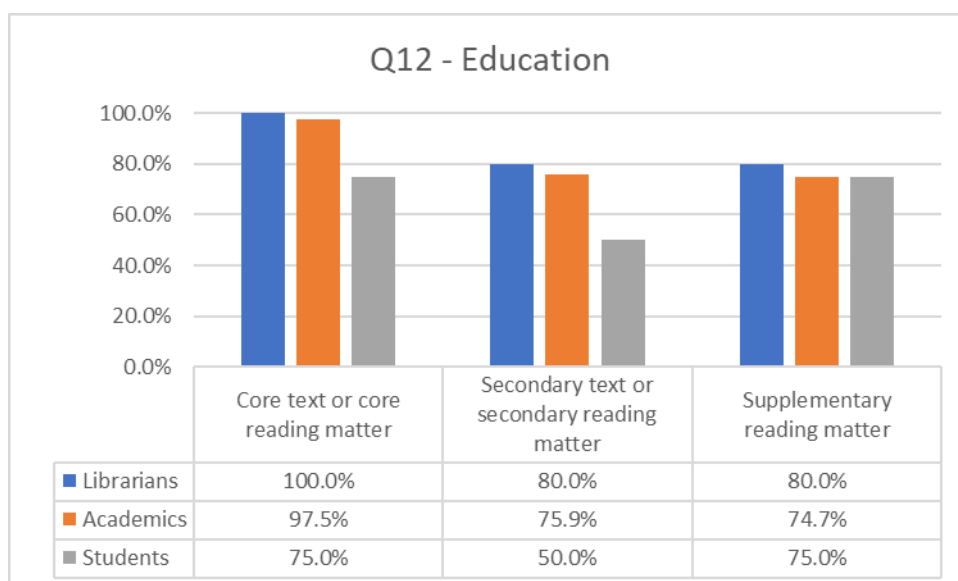


Figure 43: Q12 – Education

Two of the educationists who were interviewed said they adopted quite a directional approach to reading list matter 'because Education students are so busy – they have to do what amounts to a full-time job – we try to indicate what they really need to read. Undergraduates especially are keen on focusing on the most important information, though we encourage them to read widely as well'. One said that because the subject is so fast-moving, the reading list can be changed significantly during the period that the course is running, but that she does indicate core reading in the modular handbook. Another explained more about the process of recommendation, rather than how materials are classified:

- 'There's a strong shift towards "resource lists" rather than "reading lists". We have a new federated system which incorporates a reading list tool. There's a stronger link-up with teaching teams to ensure that resources are held in the Library. The Chief Librarian has to sign off that any new programme can be adequately resourced. The discussion has been running for years and years on how the Library can work more effectively with the programme directors.'

Nursing

In the SurveyMonkey surveys, 3 Nursing subject librarians, 49 Nursing academics and 15 Nursing students responded to the question 'How are pedagogical resources represented in reading lists?' The answers are shown in Figure 44 below.

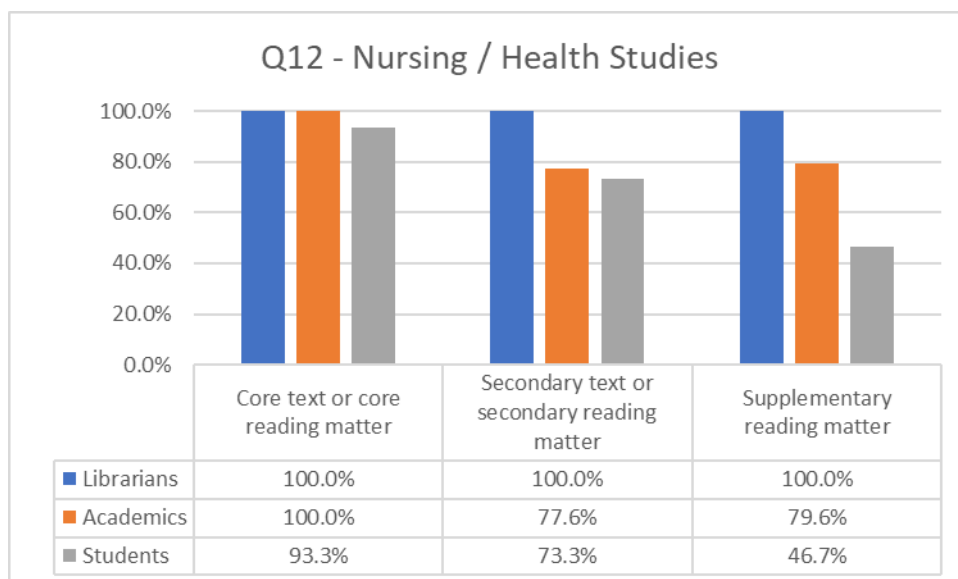


Figure 44: Q12 – Nursing

The Nursing academics who were interviewed added some significant comments; one of the most interesting aspects of the replies to this question was that, although the Nursing academics named a wide variety of resources they encourage students to use (and one said she preferred students to rely on journal articles, rather than books) they all said the core texts they recommended were books.

- ‘When a course has been approved I add all the key texts to the list – four or five books – and the Library has to purchase them. Then I might include one or two recommended texts. Then for each session there should be some “signposts” of additional reading. The reading list grows as the semester goes on. The core texts are put on first, then the others are added, along with other details, such as if there’s a useful website to look at.’
- ‘Yes, there is a core text for each module and we indicate clearly the relative importance of the other references.’
- ‘I would typically include one or two theorists in my reading list and then a selection of texts from each of them. For secondary reading, I would include journal articles and policy for context. I always include a variety of texts they can choose from, because I might teach students from different subjects (Nursing, Midwifery, Paramedics) in one lecture and I want each of them to find a text that relates to what they do.’
- ‘We have the categories “essential” and “required” in the reading lists, and I use these categories to tag the content accordingly. I tend to give them one key text and a few others, but encourage them to do research beyond that themselves. I sometimes will also add some further reading on the lecture slides, which is background reading that doesn’t belong in the reading list as such.’

Psychology

In the SurveyMonkey surveys, 5 Psychology subject librarians, 17 Psychology academics and 40 Psychology students responded to the question ‘How are pedagogical resources represented in reading lists?’ The answers are shown in Figure 45 below.

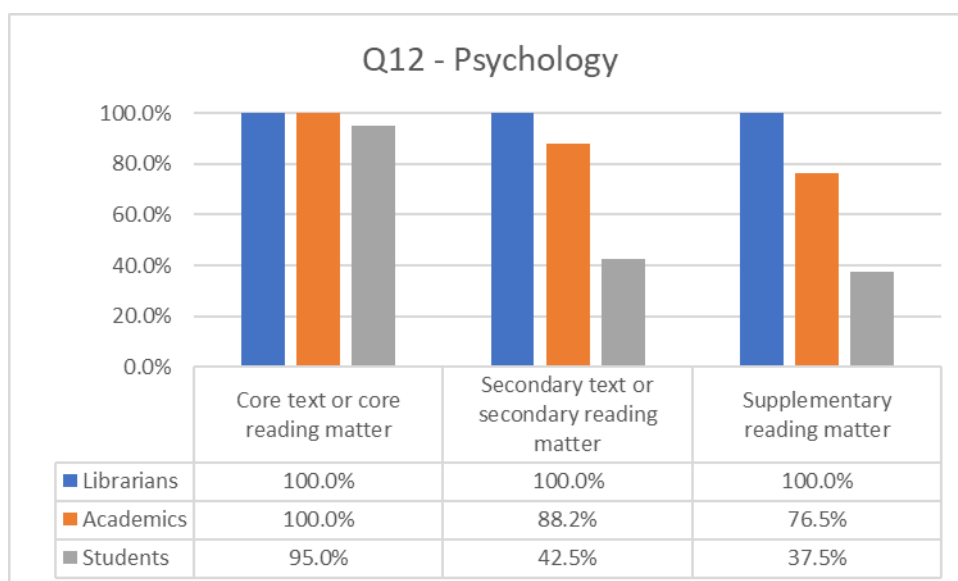


Figure 45: Q12 – Psychology

The Psychology academics interviewed in depth unanimously agreed that they used the classification 'core text', always for the first year and sometimes for the second year.

- 'We still use these classifications, especially "core texts".'
- 'Each module has its own core text. It's never anything unusual – it tends to be the text that's the most popular on the subject in the country – Cognitive Psychology, Biological Psychology, etc. But by the third year, we aren't recommending core texts anymore.'
- 'For a first-year, there will be mainly core reading, consisting of 1–2 textbooks. In higher years, there will be more secondary or background reading, but I try to meet all three levels [indicated in the question].'
- 'This varies from module to module, but, usually, I would have one core textbook. For each lecture, there might then be a couple of additional articles or other reading material.' [RG]
- 'It's a mix. I have noticed that many colleagues started moving away from one core textbook and rather recommend two or even three titles to provide a choice. I do wonder whether that is due to the demand for e-books.'

Sociology

In the SurveyMonkey surveys, 3 Sociology subject librarians, 19 Sociology academics and 2 Sociology students responded to the question 'How are pedagogical resources represented in reading lists?' The answers are shown in Figure 46 below.

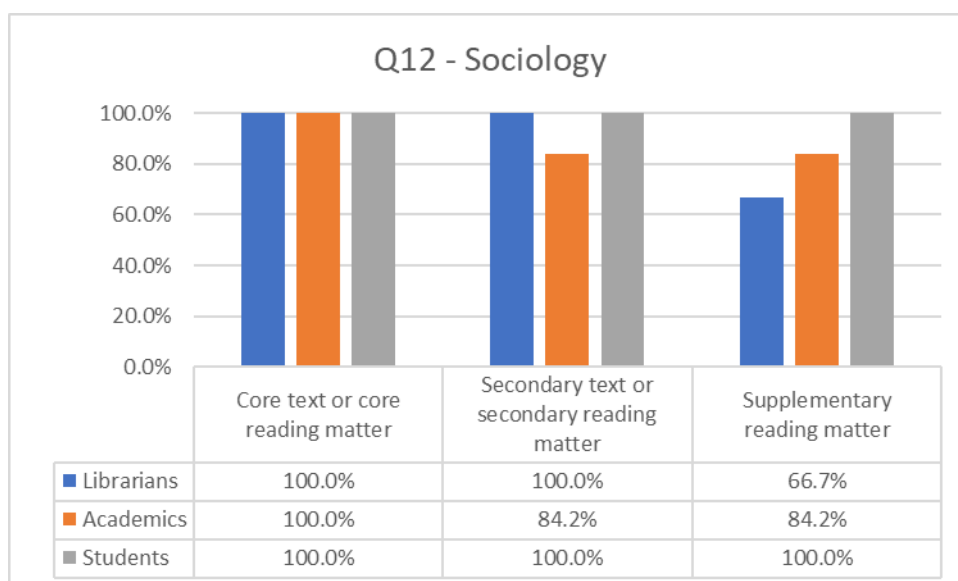


Figure 46: Q12 – Sociology

All the Sociology academics who were interviewed said they recommended core reading or core texts, though some placed greater emphasis on the latter than others. Some lecturers appear to ‘spoon feed’ the students much more than others: at one end of the spectrum, one said that students are encouraged to do their own research, at the other end, one of the academics gave them exact passages in the textbook to prepare in advance of the lecture.

- ‘What I tend to do is give a core reading list of one key reading (core text) and about ten other/secondary reading items. However, when the students have to write specific essays or for certain assessments, I will give out another more specific reading list with 5–10 articles or books chapters.’
- ‘I always classify the material, but I don’t use the default classifications. I would call the core reading “key preparation”, which might be one piece of reading per week. I will then give the students further reading of about 5–7 other items.’
- ‘Core texts are only a very small part of it. We try to make them aware that their own research has more impact.’
- ‘We will always offer a set of core texts. We tell students these are the ones you absolutely need to know. We break them down into a series of readings – e.g., for the next lecture, you will need to read Anthony Giddens, Chapter 3. For most modules, there are at least 5–6 readings. I give them the page numbers: you need to read this from page x to page y.’

Who should pay?

(see section [“Who should pay?” on page 21](#))

This was one of the thorniest questions asked from the point of view of the academics and librarians. Viewpoints differed more by university than by subject. It was clear in some instances that both academics and librarians wrestled with the choice between offering a politically correct reply and one which reflected their true opinions.

Business

The Business academics were asked if they thought: the institution should pay for some resources used by undergraduates; the Library should pay for all resources; students should pay for some resources; or it should be a mixture of these options. Only two of the Business academics thought that students shouldn't have to pay for any resources at all and only for one of them was this view a matter of principle:

- 'I think all the resources should be provided. There should be no obligation to pay for a book: the students pay for the Library and should use that. Most don't buy books.'
- 'I've not had any indication that students here buy books. If a student gets to the Library on time, they should be able to access the resources they need. I suppose the ones that come to doing the work late may panic and buy the book. We certainly don't force them to buy books.'
- 'Essential reading is provided by the Library and some lecturers recommend to buy a title because the library may not hold enough copies. But none of that applies to me, as I don't have any essential reading on my lists.'
- 'I don't think student are expected to buy. We recommend some books, but the library provides access, usually electronically. There is also a short loan system, which helps with availability of very popular titles. Some students might choose to buy a print version, but they are not expected to do so.' [RG]

The other academic respondents thought payment for resources should come from a mixture of funds. The most detailed response came from a university that engages with the John Smith Aspire bursary scheme (though the other Business academic from that university seemed to be unaware of the scheme):

- 'There's an expectation that students will pay for a core textbook. They may share or buy second hand, but they do buy those texts.' [RG: Note: One of this respondent's colleagues said that students weren't expected to pay; so there is dissension on this not only within the same university, but within the same department.]
- 'In the Business school, we use Aspire – all departments do something slightly different with regard to helping students with resources. In the first year they receive an Aspire card for £200 which helps to buy a significant number of textbooks. We also encourage the bookshop to put together a package of Management books for us at a discounted price. We try to include in this Business books that will be useful for all three years of study. After they've paid for the package, there's still a balance left on the card for other things. We tell them that the card won't cover everything and direct them to the Library for resources they can't buy. It works well. Our bookshop is a John Smith's.'

An academic from a university without an Aspire scheme said that cost of learning resources was a worry, whoever paid for them. This academic indicated that the Business school was considering using an aggregator's e-textbook platform so that students could acquire individual digital copies of textbooks, but that the school itself might not be able to pay – although it was considering absorbing the cost within the fees. He also raised issues about digital security:

- 'It's a mixture. We're exploring interactive textbooks and learning platforms, but someone has to pay for it. We feel a bit apprehensive to tell students they have to pay for a £40 subscription each, given that they are paying very high tuition fees already. Therefore, the school is considering to purchase these for some of the classes, but then we again have a funding issue. We also need to investigate the security,

accessibility and other IT aspects of the sites that have to comply with the university's policies.'

The Business librarians agreed in principle that students shouldn't have to pay for resources in addition to high fees, but said this presented them with problems as their budgets are not designed to provide every student with all the resources that he or she needs. One of the universities has had to declare a policy of not expecting students to pay under CMA [Competition and Markets Authority] rules, which require the university to list any additional costs the students might have to cover. One of the librarians said it was inevitable that students in some subjects would have to buy some texts, owing to the nature of the texts concerned. All the librarians indicated that students will, in practice, buy some learning materials, though they implied this was usually only reluctantly and from necessity. One of the Business librarians said that who paid was not as important as making the students understand what kind of expenditure they would have to make before they enrolled on the course:

- 'The policy is that students are being told what to expect. If we as a library are aware of what's essential or recommended, we try to get sufficient numbers of copies in.' [RG]

Some further comments:

- 'We don't have "required purchase" for students anymore, so officially students aren't expected to purchase resources. Having said that, in some modules they have to buy them anyway because we as the Library won't buy more than 25 copies of any textbook and in a course of several hundred students it is not enough. We are looking into e-book access, but that is a difficult topic... also, CMA legislation isn't helping, because for the past two years we have had to comply with consumer legislation and therefore need to make any additional costs very transparent for students.'
- 'According to the CMA, the university's contract with the students must tell how much the costs will actually be, but the costs of books required in the course of the degree can't always be exactly foreseen. Therefore, the university decided to say in the contract that no students need to buy any books and therefore the academics can't tell them to buy anything. However, the Library budget was not increased to cater for that, which is a very tricky situation indeed!'
- 'As a library, we don't expect students to buy. The department might expect them to pay for certain resources themselves, however. We do have an option within the reading list software for lecturers to recommend to purchase. Some students will buy Business books. It's more of an issue in the Law department (which also comes under Business). The students are expected to buy several books and they are all very expensive. We will buy as many as we can for the Library.'

The business school at one of the universities was looking at the possibility of an 'institution pays' materials provision model, in which each student would be 'given' core texts in electronic format from an online e-textbook aggregator as part of their university fees. There was also interest at the other university where Business librarians were interviewed. However, cost is proving to be a major – perhaps insurmountable – problem and students' dislike for electronic books is also a deciding factor:

- 'The Business school looked at [aggregator X], but the model required them to buy a copy for each student. The department was still keen to do it, but we pointed out that the Library couldn't fund it. It wouldn't be fair to support some students and not others in this way, and we certainly couldn't pay for [X] across the whole university. Besides

this, the students don't like e-books. Essentially, they have "rejected" them – they only use them when they can't get hold of print. Some lecturers still quite like them.'

Education

All the educationists thought the institution should pay and in each case by this they meant the Library. One mentioned helping students to buy second-hand texts but said this wasn't widespread. Another said that students already have to pay for printing and resent that; asking them to pay for anything else on top of the fees is unfair. The development of OERs was also mentioned as an alternative to expecting students to buy costly textbooks. However, the context was that OERs/MOOCs mainly act as a useful recruitment tool. The following was the most comprehensive comment:

- 'The institution should pay, by making the resources available via the Library. It mainly does: I don't get the sense that the Library is under-resourced, but the university is certainly heading towards a tighter financial climate. We have a new library which is very well-stocked. We don't buy textbooks per student like Coventry, but we are making free online courses available. Lecturers are encouraged, if they have a new idea, to write a small online course. We have about ten at present – e.g., environmental stability, change management, etc. They're very important in providing a sample of the sorts of teaching prospective students might experience here. However, they are resource-heavy and not at the moment a staff priority. In time, we're hoping to get the VC to support more strongly; then we feel they will pay off.'

An Education librarian said that at her university no students were required to buy resource materials, indicating that this was university policy; conversely, the university didn't provide students with individual copies of books as part of their course fees.

- 'No students are expected to buy any kind of resource materials. We also don't give individual students free books here. On the reading lists, students are given various options on how to get hold of the materials they need, including purchase, but this isn't a requirement. As far as use of the Library goes, access is via their fees – it's comprehensive.'

A Russell Group university Education librarian said more or less the same:

- 'There is no policy; the only policy is that if the students are expected to buy anything, the students need to be told upfront. The library has a books per students ratio, so most students have access to their materials through the library. We don't buy titles to give to students to keep. For this, we work with the campus bookshop, who offer bundles for certain courses.'

Nursing

The Nursing academics did not have particularly strong views on whether students should have to pay for some of their learning resources. One said they would get their first-year texts with the Aspire card, and then perhaps should not have to pay for anything except printing and photocopying in subsequent years. One thought the tuition fees should cover all other costs. One said that undergraduates were expected to buy two texts. One said that although students could manage without buying their own textbooks, they might want to write notes in them and would then have to buy their own.

- 'For undergraduates, there are two texts that we expect them to buy. They are available in the Library so the purchase is not compulsory but, because they will use the titles all the time, it makes most sense to own them. One of them is an anatomy book, and the other one a relevant text to their chosen profession. We also heavily use a pharmacology database, but the library pays for an institutional licence for that.'
- 'The Library has a limited number of key texts so students don't need to buy them, but they might decide that they want to buy a key textbook to write into it, or if it is only available digitally through the library and they prefer the print book.'

One of the Nursing librarians said the question of who should pay was 'outside his scope'. The others offered a viewpoint; the replies that they gave were broadly similar – one said that students shouldn't mind paying for a few things; two said that in principle students probably shouldn't have to pay, but in practice provision by the University (for which read 'Library') is necessarily limited and therefore, to get the best from their course, it may be desirable for students to buy some of their own resource materials.

- 'I think it's reasonable to expect the students to buy a few books for their studies. For example, if we're talking about a very high usage textbook, we certainly won't be able to buy a copy for each of the students.'
- 'Students are not expected to buy in the way they were expected to in the past, so we as a library are looking into different ways of providing access for everyone (for example by providing access to the e-books).'
- 'Students are not expected to buy, but they may be recommended to buy. We have a campus bookshop which stocks the titles that lecturers recommend. Now that there's so much content available online, the print versions are in less demand, but some are always just available in print so students tend to buy those.'

One of the librarians said that her university was considering the funding of undergraduate resource provision by the university itself (i.e., by the institution, not the Library) and that a pilot project had been set up for Midwifery students.

Psychology

Two of the Psychology academics felt quite strongly that students should not have to pay for learning resources. Both mentioned that commercially-produced publications were too expensive. Another academic said that he thought it was reasonable to expect students to buy *some* books. It should be noted that in the first of the comments quoted below, the academic concerned is incorrect about two things: that electronic versions are significantly cheaper to produce than print, and that 'global' editions of books can be produced that will 'travel' successfully. (Conversely, academics and librarians in countries outside the UK who buy British textbooks constantly ask for more local examples and case studies to be included.)

- 'I don't think students should have to pay for anything: I think that all aspects of their education should be free at the point of use. Publishers are having to adapt to new models. I think they themselves would acknowledge that a lot of their practices are outmoded. What they're doing should be about low production/global volume: electronic versions made profitable by global volume. The whole economic model has to shift. It's not realistic to expect students to buy electronic resources.'
- 'I've said that most of the books we recommend are famous; it often follows that they're also very expensive. Leading authors charge £50 for a textbook. The model is shifting to journals, in any case, but I think it should be a case of the student – or the institution on behalf of the student – paying for access once and then getting it every time. The

Library does stock print, but there aren't enough print books to go round. I think the Library could be more efficient about what it's spending its funds on. For example, it holds ten different books on research methods, all saying more or less the same thing. Students like to photocopy chapters from the books they find most useful.'

- 'If it's something the students are going to use a lot, we suggest to buy it, but it's usually no more than one or two books for the entire degree. If we do, the bookshop usually stocks it.'

A Psychology librarian thought that all students' resource needs should be covered by the fees they pay.

Sociology

The Sociology academics interviewed in depth agreed quite unequivocally that students' learning resources should be covered by their fees. One said that sometimes there was a shortage of available textbooks, but that availability in electronic format helps with this. One said the Library should carry multiple print copies. One said he advised students who were willing to pay for a book to look for a second-hand one. Many of these comments illustrate that the academics don't understand the issues from the publishers' point of view. All these academics meant that resources should be provided by the Library when they said 'the institution should pay' – they weren't suggesting up-front supply of core texts as part of the tuition fee.

- 'The Library provides copies of the core texts, but there isn't always one copy for each student, so some may choose to buy their own copy. But the availability of electronic resources helps. Publishers don't seem to always understand the issues with regards to print versus "e", so it isn't helpful if texts aren't available electronically, or if the usage is heavily restricted.'
- 'I do advise students who want to buy a book to look for second-hand purchases, as that makes it financially more viable. I have to say, I sometimes really can't make sense of the pricing publishers apply. Some titles are £80 and more! Students are financially squeezed more than ever, so I would rather tell my students to steal a book than to make them purchase it new.'
- 'The university should provide students with all the resources they need to complete the degree. The Library should contain multiple print copies of the main texts and all the other resources should be supplied digitally.'
- 'My personal view is that the university should provide a total service in return for the fees. They should get the stuff they need to obtain the degree. Some will pay for extra materials, but essential reading should be available at no extra cost. By this, I mean it should be supplied through the Library.'
- 'There is no policy. It's an area where there was a survey across the Humanities College a while back, in order to find out what the actual practice is. The primary expectation was that the library provides everything, but students did expect to maybe buy one key textbook. However, it depends on the subject. For example, in English Literature, it's reasonable to expect students to buy a £1 classic novel, but it wouldn't be ok to expect Social Studies students to pay for their expensive textbooks.' [RG]

External factors which have an impact on teaching and changes in pedagogical approach

(see section [“External factors which have an impact on teaching and changes in pedagogical approach” on page 23](#))

Business

In the SurveyMonkey surveys, 3 Business subject librarians⁴³ and 55 Business academics responded to the question ‘Do you think that the following have had an impact on the approach to teaching at your institution?’. The answers are shown in the graph below.

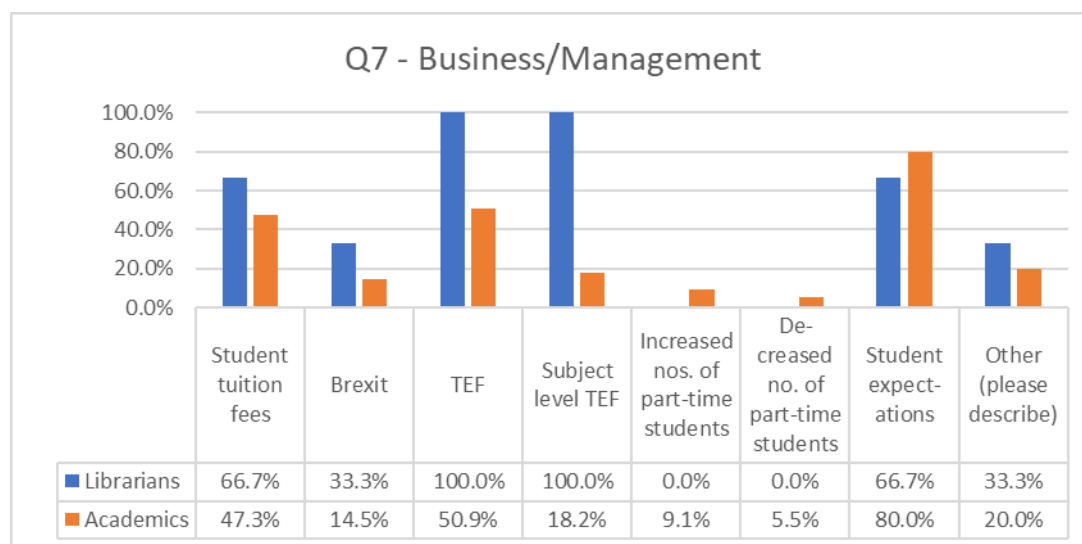


Figure 47: Q7 – Business

The TEF. Of the in-depth interviewees, fewer of the Business academics than in some other subjects thought the TEF had had an impact. One agreed that existing plans to improve teaching methods now had to be fitted into TEF frameworks. Another said the TEF had influenced the whole university’s teaching strategy (not just for Business). Only one of the Business academics to have thought much about subject-based TEF:

- ‘TEF for individual subjects hasn’t kicked in yet, but we know it will loom large in the next few years. We’re starting to understand the rules of the game. When we start to apply it, it will be complicated and we’re not sure how it will work out, exactly. The difficulties are apparent when you sit down to think about it, which is why it hasn’t been applied at operational level yet.’
- ‘The implementation of the TEF certainly has had an impact on my teaching. The subject-level TEF is still too new to have had an impact on teaching, but it probably will in future. Brexit doesn’t play as much a role, because the focus at our university has been more on non-EU students. The increase in student tuition fees plays a certain role – we have always talked about teaching quality, but new student expectations have just reinforced what we already do, and it is important that we will maintain what we are doing.’

⁴³ These were two subject librarians for Business and Management and one for Business and Management as well as Health Studies.

One of those who said it hadn't had much impact doubted the TEF's effectiveness as a pedagogical measure, which raises a different issue:

- 'The TEF hasn't been very useful, because it doesn't measure what it's supposed to ... the change has to come from us as educators. How do we want the leaders of the future to be educated? That's what we should be thinking about. It is about changing the whole attitude and behaviour.'

Brexit. Most of the Business academics thought that Brexit would have an effect on their department or institution. Student recruitment was the area identified that would most likely be affected. One of the academics said that although the government supports Business as a discipline, funding has been withdrawn from other disciplines and this affects the institution as a whole:

- 'Brexit hasn't caused any changes yet, but we're trying to model the impact it will have. We know it will affect our recruitment of European students very significantly. Withdrawal of government funds has little impact on Business as a discipline – the government wants to support Business. But we have colleagues in other disciplines who are constantly having to adjust to funding cuts.'

One of the academics said that Brexit had already had an effect on recruitment, and also that the effect of Brexit on research was a 'disaster':

- 'There's already been a drop in enrolment of EU students. It depends a bit on which subject they're interested in. In terms of research, leaving the EU is a disaster. We used to help students get scholarships from such initiatives as Horizon and now this is no longer possible; we're not eligible to apply any more. The way in which government funding is distributed has got to change: for example, if the Oxbridge universities receive less EU funding (which they will), it looks as if they will get most of the government funding to compensate.'

Student numbers. The Business academics were very concerned about student numbers, which they indicated cause tension whether they're increasing or decreasing. There's pressure from the university to increase numbers, but this has a direct effect on the types of teaching method that can be used and student satisfaction. If numbers decrease, or are expected to decrease, this has an immediate – and potentially considerable – effect on funding.

Student demographics. Two of the Business academics mentioned a change in student demographics: both said that there was less emphasis on recruiting mature students now (or alternatively, mature students weren't willing to take on student loans). Across the three universities, it was much more likely than in the past that all or most of the students were 'straight from school'. One of the academics said that she'd noticed how local the students were (this was at a university that has long made conscious efforts to widen participation):

- 'Something that was very evident to me when I first came here was how local most of the students are. It was different at the two Russell Group universities I worked at. They're less assured than the students I've been used to: they'll come into the office and ask me to explain things – how to get student loans, for example – because they don't understand.'

Effect of higher fees/student satisfaction. However, this perceived gaucheness does not prevent students from expecting more from the fees they are paying. One of the academics said that fees had had little effect on straight-from-school students (as this is a loan of money

that never actually passes through their hands), but two others commented that the knowledge that they're paying high fees, which will eventually have to be paid back, has made students more demanding, raised expectations about what they will get for their money and even, in some instances, been associated in their minds with 'paying' for a good grade:

- 'There has been a change in student attitude since the fees started to climb. Maybe it's connected with the naiveté I've mentioned, but students have said to me "We're paying for this", as if the fact that they're paying influences the grades that they get. They believe they've signed up for a kind of private education, with no standards. This year, for the first time ever, I've had some disciplinary problems with students. This change in student attitude makes me sceptical about my job. There have been some instances in the student feedback this year where I've been criticised personally.'
- 'As far as fees go, higher fees have had little effect on recruitment but significant effect on teaching. Students now are very much acting as customers, which they didn't do in the past. They have little understanding of my team, for example, because we work behind the scenes. If they do find out, they're amazed, but most students don't think about this. We often get comments about how much money they're spending and the levels of service they expect in return.'

Education

In the SurveyMonkey surveys, 5 Education subject librarians and 83 Education academics responded to the question 'Do you think that the following have had an impact on the approach to teaching at your institution?'. The answers are shown in the graph below.

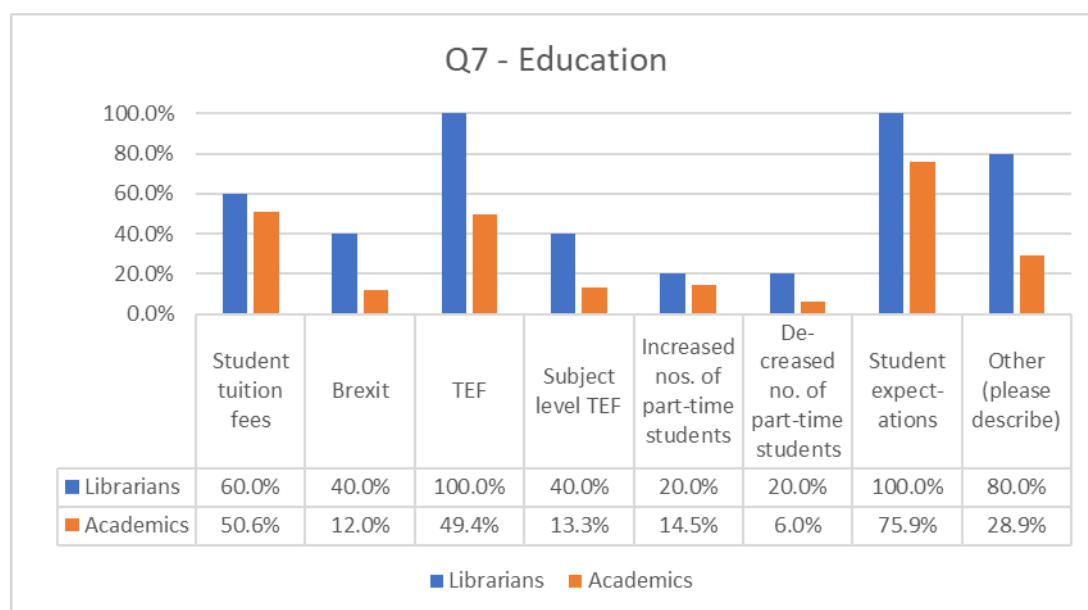


Figure 48: Q7 – Education

The TEF. Of the in-depth respondents, the TEF featured largest in the conscious of the educationists, as was perhaps to be expected. One of the academics said that the TEF made them more accountable, 'which was fine'. Another said the TEF was the main factor preoccupying the hierarchy at their university:

- 'We have a new Deputy VC, and for him there's no party in town except TEF Gold. The metrics here are still not right: we were lucky to get Silver. We're waiting to hear about the official approach to subject-based TEF at the moment.'

Subject-based TEF. All the Education academics said that this was being talked about, but there were no concrete plans to address it at present.

Brexit. One of the Education academics taught trainee primary school teachers and didn't think that Brexit would affect this much as the students tend to come from the UK only. One of them taught on courses which currently attract students from the EU and said that Brexit had caused uncertainty:

- 'Brexit has caused a lot of uncertainty. Applications from overseas students are difficult to process – how we should react is both confused and confusing at present. The government has not been clear-cut about the status of overseas students immediately post-Brexit.'

Funding. This was also a major issue for the educationists. Prominent among their concerns was that the government has withdrawn teachers' bursaries in most subjects.

- 'Funding is a big issue. There are lots of issues around the funding of teacher training. This year teaching bursaries have been removed from the list of teaching courses that qualify. The only people who can get them are now secondary school teachers in scarce subjects, such as Physics. This has had a big impact on our recruitment patterns.'

Student numbers. Decreases in recruitment of trainee teachers were noted at the in-depth universities. This mirrors a more general national downturn in applications for teaching training courses. Another funding issue linked to recruitment is that schools used to pay universities tuition fees for supporting new teachers but are now either unable or unwilling to do this.

- 'There's been a decrease in recruitment, and also a decrease in schools paying us direct for teacher training. They used to pay us a tuition fee for supporting new teachers, but they're more reluctant to do it now because their budgets have been squeezed too. We don't offer part-time education courses but we are seeing more older students looking for career changes; at the same time, a lot of younger teachers want to leave the profession after a few years, so there's a constant churn. Each year the government estimates that the country needs 35,000 new teachers, but it's withdrawing measures it put in place to aid this. Students' attitudes have changed as they've had to foot the bill – they often say "but we're paying for this", especially when things aren't going their way.'

Effect of higher fees/student satisfaction. Education students don't seem to be as strident as some of their peers in other subjects when it comes to asserting their opinions about what they expect for their fees: but one of the educationists said she had experienced a change in attitude following the introduction of higher fees:

- 'The withdrawal of bursaries⁴⁴ affects how students see themselves. Some have actually said to me that because they're paying tuition fees, they have a right to pass the exams.'

Demographics. Most Education students are young and female. There are some males, but they're in a minority. Teaching courses attract more part-time students already in work. These students are viewed very differently – 'they're valued in terms of the job they already have,

⁴⁴ Bursary students didn't pay fees: so the withdrawal of the bursary and simultaneous introduction of fees represents a 'double whammy'.

rather than their achievement on the course'. However, one of the academics said that one of the effects of withdrawing the bursaries is that fewer part-time students are applying (perhaps because they already have financial commitments and don't want to take on the debt).

Nursing

In the SurveyMonkey surveys, 3 Nursing subject librarians and 48 Nursing academics responded to the question 'Do you think that the following have had an impact on the approach to teaching at your institution?'. The answers are shown in the graph below.

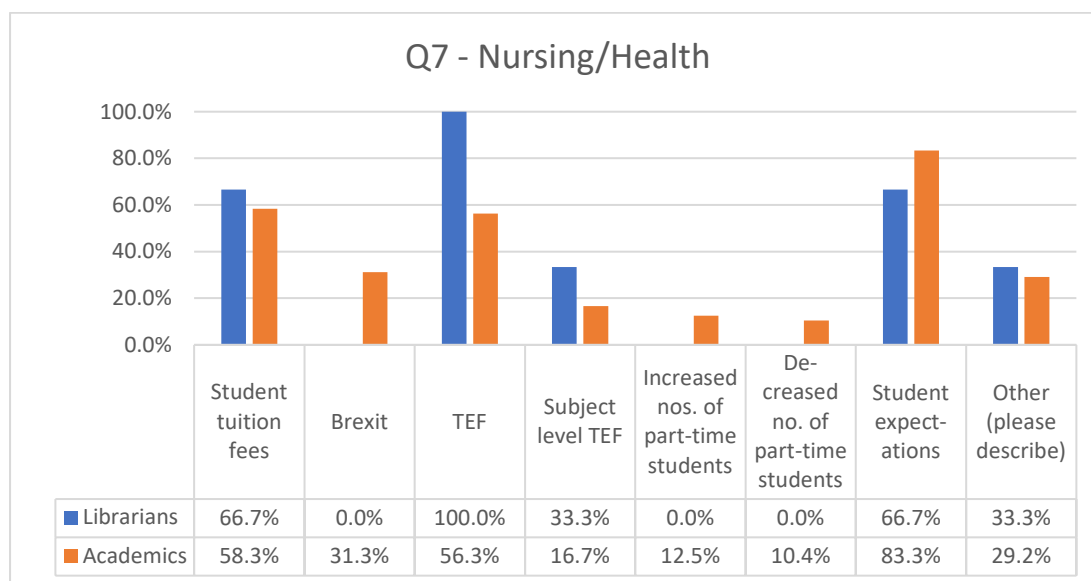


Figure 49: Q7 – Nursing

The TEF. Of the five disciplines studied in depth, the academics teaching Nursing seemed to feel least affected by the TEF. This was partly because their courses are very teaching-heavy and they have developed effective teaching techniques with a good rapport with (usually very motivated) students and partly because they are already assessed by professional bodies such as the NHS. One Nursing academic who did think the TEF had had an impact linked this immediately to withdrawal of Nursing bursaries; another said the TEF had encouraged the collection of better data in order to improve teaching.

Subject level TEF. Similarly, this was not considered a cause for concern among the Nursing academics interviewed; one of the respondents – who seemed to have thought about the implications more than most – pointed out that it would be much easier to implement for Nursing than for some other subjects.

Brexit. This was much more of a concern for the Nursing academics for concrete rather than speculative reasons, including, for example, the question of EU regulations on good practice in Midwifery and whether these would still be observed.

- 'Brexit has brought a great deal of uncertainty about the Midwifery role and how the move out of the EU will affect it. The Midwives Act has always stated that British midwives will work to UK standards. We went through a period when there were significant changes to the Act and the regulations. That created uncertainty and a level of fear about the likely impact. Post-Brexit, what is the definition of a midwife and her role? With regard to the broader political issues, I was at a meeting between the university and the NHS yesterday, and it is a can of worms. There are significant

staffing problems, with ageing midwives and a lot of dissatisfaction with the systems in place. It impacts on the students' experiences. Because our placements have been commissioned by the NHS, we've always been in a position to get them for all our students, but the assumption is that most of them will come from the UK. Now there is a push from the university sector to increase recruitment of international students. As far as the university goes, we're now free to do that, but it creates further complexities down the line. We've been educating professionals with a view to getting them to support our health services to train students. The impact of international students in the future will also have a profound effect on the future of the NHS.'

- 'Brexit hasn't affected our Nursing programme per se. There aren't many students from the EU taking our Nursing and Midwifery courses. We could now take more, but I doubt this will happen. But Brexit has had a big impact on the Nursing workforce more generally: there are more people leaving the profession than joining it now. We'll have to make up a shortfall by recruiting extra students or bring in more returners. It's a challenge now the bursaries have gone. Midwifery is affected in the sense that there are EU-wide regulations for midwives. I don't know what will happen to these now and if the UK diverges from them significantly, we won't be able to employ EU midwives here and UK midwives won't be able to work in the EU.'

Funding. This was, likewise, a major cause of concern for the Nursing academics. All mentioned the withdrawal of Nursing bursaries and the adverse effect this has had on recruitment – though one of the academics said that the loss of the bursaries was not entirely a bad thing:

- 'My view is that all students should have their fees paid for them, but the reality is that all students have to pay fees. If we're trying to become an all-graduate profession, what is the harm in our accepting parity with the rest of the student body? Recently some students have taken a health care degree simply because they could get the bursary and they haven't proved to be very good students. They're in a minority; an even more significant factor is that the bursaries were too low: the students couldn't take jobs because of the placements and they were living in penury. The placements require them to work five days a week (of course, they should be properly paid for these, but they aren't). Whilst working with the same system as other students means they're taking on debt, they're actually better off doing it this way. The bursary system gave them no opportunity to do anything but take on more debt at a higher rate of interest than ordinary student loans. The reality is that equality of treatment should be better for all students.'

Student numbers. Loss of the bursaries was not identified as the only factor in reducing student numbers; another was the changing relationship with the NHS. Nursing departments at universities will not in future be able to rely on supplying trainees and graduates to a single customer: the NHS. This will mean that, like other university departments, they'll be expected to bring in business and the competition with other universities for the same students will step up.

- 'The removal of the bursaries has led to a 23% reduction of applications to UCAS (the average reduction nationally is 11%). Northern Ireland and Wales have managed to hold up on recruitment.'
- 'The numbers of students we're able to take are dictated by NHS placement levels. We're acutely aware that once the NHS connection is removed, as a department we'll be on an equal footing with other departments in being expected to bring business to the university. This is a big impending pressure. We know we'll have to be innovative

in terms of what we provide: are there different ways in which we can educate more students more effectively without more pressure?’

- ‘A key issue will be the maintenance of practice learning. We’re paid for one-on-one mentoring support; 50% of the programme is delivered by the NHS. It may be that they won’t be able to pay any more.’

Effect of higher fees/student satisfaction. Only one of the Nursing academics said that student expectations had changed as a result of the implementation of full fees for Nursing undergraduates. As already mentioned, these students tend to be highly motivated – and they have an intense lecture programme sandwiched between placements, so there’s probably not much more they could ask for.

Demographics. The Nursing academics agreed that the worst long-term effect of the withdrawal of bursaries would be the reduction in numbers of mature students – either those switching to the Nursing profession from a different kind of career or ‘returners’ – as people from these groups are much less likely to be willing to take on student debt. Two significant areas on which this will impact are the make-up of student cohorts – apparently, the presence of mature students has a very beneficial effect when they’re in mixed groups including school leavers – and recruitment for specific types of Nursing, especially mental health and adult nursing:

- ‘Another effect of losing the bursaries is that we’re now recruiting too many young people (school leavers). Returners have already registered for next year but we’re not getting many new entrants. Returners typically work in mental health and adult care nursing, so there will be huge shortages in these areas.’
- ‘I don’t think the demographic will change for another couple of years. Midwifery is very competitive: there are people who’ve been waiting to get on the programme for three, four or even five years. They’re so far down the road to getting a place that they’ll keep trying. My sense is that it will change once these people have worked through. Broadly speaking, across all the cohorts we have a fifty-fifty split between school leavers and more mature students. This has been the situation for the past 10–15 years. Our concern is that we will lose the more mature students. They often have children and mortgages and can’t afford to take on more debt. For school leavers, student debt is all they know: they’re parents expect them to take it on.’

Psychology

In the SurveyMonkey surveys, 5 Psychology subject librarians⁴⁵ and 17 Psychology academics responded to the question ‘Do you think that the following have had an impact on the approach to teaching at your institution?’. The answers are shown in the graph below.

⁴⁵ These were four subject librarians with Psychology being one of two or more subjects, and one subject librarian for Behavioural Sciences.

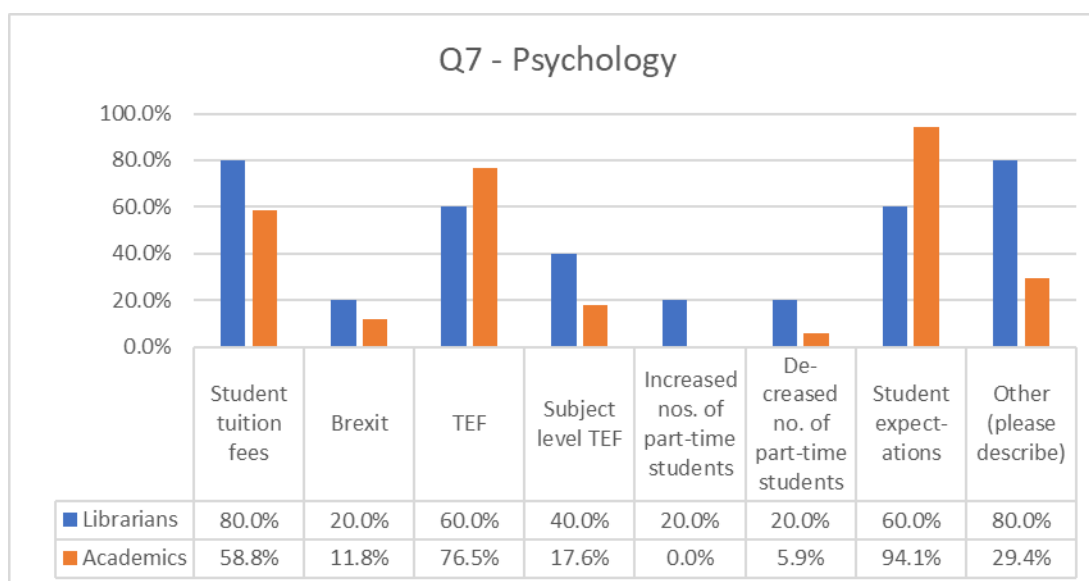


Figure 50: Q7 – Psychology

The TEF. All the Psychology academics interviewed in depth said the TEF had had an effect on teaching at their institutions, though one also said that the TEF was ‘a nonsense’. The main effects of the TEF identified were an increased emphasis on how to measure teaching excellence, rather than changing the actual processes of teaching. Only one mentioned subject TEF, saying that it would make the challenges more acute.

- ‘The TEF has had an effect. What it’s done is to drive us to find ways of formalising and capturing practices in which we’ve long been engaged. Subject TEF will happen and then the challenges will be even more acute. We have to think about how to start embedding teaching practices so that they can be measured.’
- ‘The TEF is a nonsense. It was a surprise, and then was introduced by the Conservatives in a very ad hoc way. I have utter disdain for it: it is an absolute mess. It was part of the fall-out from a shock general election result. The Government just made everyone eligible who had a QAA rating. The problem with it is that it doesn’t measure anything meaningful. Take graduate jobs, for example, this university, like every other, plays the system. We may say that 90% of our students are in employment six months after they graduate, but it could be any type of employment – MacDonald’s, even! The fact that we got Gold status has nothing to do with the lecturers and their performance. What it actually means is ambiguous and what was the point of rolling it out if the whole thing’s going to change next year? No one has mentioned subject TEF yet, but I don’t see how that will work, either.’
- ‘My university has always had an emphasis on teaching, and I suspect that the TEF was anticipated for a while, so it indirectly drove the changes, even though they happened before the implementation of the TEF. I think these factors are all interlinked. Students pay more fees, so they are more vocal, so you have to deliver a different way of teaching.’
- ‘Changing student expectations are having an impact. They have a lot more questions and students demand more support from us – we believe that it is due to the increase of fees. The TEF is not impacting us directly but has a big impact on a higher level. Management are certainly affected by it. It hasn’t trickled down to school level yet, but I am sure it will in future, especially when the subject-level TEF is out.’

Brexit. Only two of the Psychology academics expressed views on Brexit. Both thought it would have a major impact: both mentioned student recruitment and one said it had already sent the wrong message to academic colleagues, many of whom are nationals from countries in mainland Europe. One also mentioned the effect Brexit would have on research (and, by implication, research funding).

- 'Brexit has certainly had an effect in terms of student numbers and it's projected to affect us even more. This is especially the case with research – the numbers of EU institutions prepared to work with us are much lower. It's also very clear that it's had a detrimental effect on staffing. We have a multi-national staff and it's not just the ones from the EU who feel that Brexit sends them a message about their identity in this country. Withdrawal of funds doesn't affect any of my subjects, including Social Work, which still attracts an element of funding.'
- 'My view on Brexit was that because we charge so much for international (non-EU) students, Brexit would affect us because our general standing would fall after Britain leaves the EU and of course the EU students themselves would go elsewhere. But I've read an article in *The Guardian* that countrywide applications from the EU are increasing at the moment. That may be because the door will be closed to them after 2019. It's impossible therefore to predict what will happen.'

Funding. The Psychology academics said that funding was associated with both student recruitment and Brexit. A problem specific to Psychology is that many Asian countries from which the universities draw their students do not offer Psychology as a subject at degree level. One of the academics said that the UK approach to charging students tuition fees – particularly, linking the level of the fee and what the student receives in return, which results in shopping around for universities – means that a culture of consumerism had grown up which is detrimental to preserving academic standards.

- 'A major problem we have is that many international (non-EU) students don't study Psychology. In the countries where we recruit a lot of our students – China and India, for example – Psychology isn't recognised as an academic subject (except sometimes as a small part of Human Health Sciences courses).'

Student numbers. One of the academics said that recruitment had already been affected; another said that it had held up so far, but there were fears it would drop in the future. Desperate to recruit, some universities were lowering the entry thresholds, which was again detrimental to academic standards:

- 'Recruitment has been affected. It's easy to blame the government for this, but in all institutions there is bad practice. We're letting students in on clearing with CDD grades. This is a very low threshold – it's bound to result in more drop-outs.'

Effect of higher fees/student satisfaction. Two of the academics talked about the 'commodification of higher education'. One said that some students themselves linked paying fees to paying for the level of degree awarded:

- 'Students do now say "We've paid for this and we expect a good grade".'

Demographics. One of the Psychology academics said that, because fees are linked to loans, there was a drop in people who were eligible to apply – particularly some mature students:

- 'We used to have a proud tradition of being broad church when it came to recruitment. We always took a lot of older students, those not choosing a traditional route to academic study, etc. – for example, people seeking a career change after they'd been

working for some time. Now these people are getting squeezed out. Mature students help the others and alter the general dynamic. They provide an environment that we can't replicate with lectures and teaching materials: their experience is invaluable. Now we're being overrun with 18–19-year-olds.'

Sociology

In the SurveyMonkey surveys, 3 Sociology subject librarians⁴⁶ and 19 Sociology academics responded to the question 'Do you think that the following have had an impact on the approach to teaching at your institution?'. The answers are shown in the graph below.

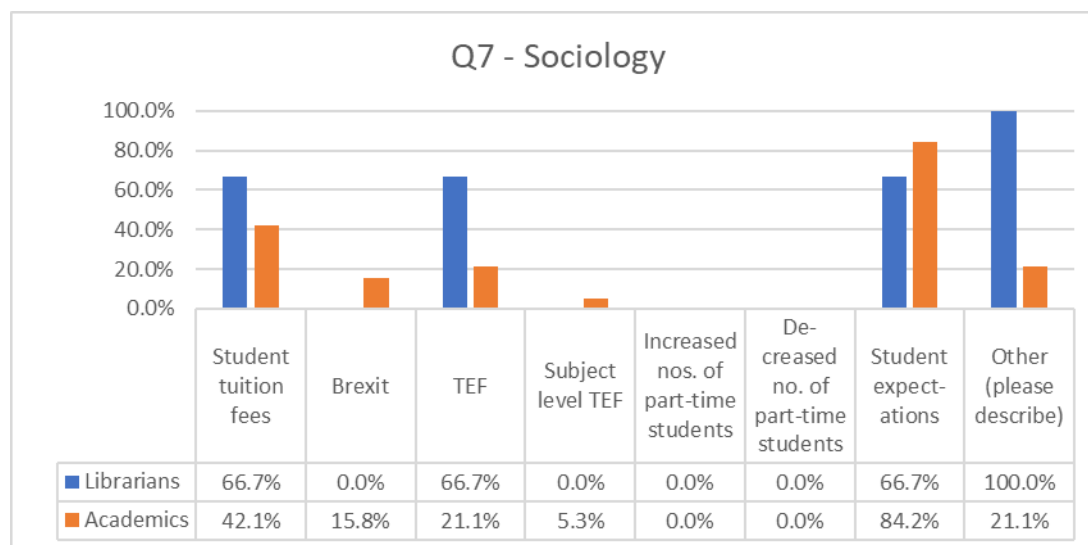


Figure 51: Q7 – Sociology

The TEF. All the Sociology academics interviewed in depth thought that the TEF had had an impact, but only one – the one newest to teaching – said it had influenced the way she taught. The others were more concerned about the implications of the TEF at institutional level. One of them said that the TEF itself was secondary to new developments in teaching – in other words, the TEF is not leading these developments, but innovative pedagogies will have to be fitted into the framework of the TEF.

- 'There has always been an emphasis in good teaching at this university, but on the whole it has become much more consumer-driven. The implementation of the TEF and the possible introduction of subject level-TEF puts a new complexion to it. It is not really new, because it is so shaped by the NSS, but it is yet another kind of benchmark we have to comply with and keep in mind.'
- 'The implementation of the TEF has had an impact on my teaching. I'm a lot more conscious that anything I do has a direct correlation to a metric and I know that what I do is ultimately benchmarked to one of the TEF metrics.'
- 'We did well in the TEF, somewhat to our surprise. It wasn't primarily about the teaching staff, but it may well be in the future and it will have to become more obvious to the teaching staff what we have to do in order to retain Gold. I think there'll be a lot more focus on teaching and how it's done.'

⁴⁶ These were two subject librarians for Social Sciences and one for Sociology (amongst other subjects).

- 'From where I stand, the TEF is secondary. It's there, and we can't ignore it; it has certainly reinforced the urgency of what we do. In its wake, we're faced with the issue of a very variable uptake of new pedagogical developments. But I don't know that the TEF has changed the fundamentals of teaching. Is it possible to do that? Subject-level TEF may force us into more of a straitjacket than we would like.'

Subject level TEF. The concluding comment about subject level TEF, above, was one of only two references made to subject level TEF by the Sociology academics. The other was as follows:

- 'There is a whole quality process involved there: clearly it must [be made to] work to a considerable extent. We have started to think about the subject TEF. We have always considered ourselves to be a teaching team, but now we've introduced individual subject leaders.'

Brexit. The Sociology academics were less concerned about Brexit than about government support for their subject more generally. However, two of their universities draw a significant number of students from Europe, as well as elsewhere in the world. One of the academics said that fewer European students would impact on the learning experience of the other students – the change in demographics would make this poorer. (This was similar to the point made by Nursing academics about the likely loss of mature students.)

'There's been a lot of talk here about Brexit but I don't think there's been much impact at my level. We still plan to keep our exchange schemes in place: there's one with France and two in the USA. We have another partner institution in Europe, as well. Again, we don't envisage that will change. Our overseas students don't in general come from the EU: they come from Asia, especially China, and the USA. Discourse around the broad (lack of) support of government for Social Sciences is more important than Brexit. The government has encouraged a shift away from the caring professions – Nursing, etc. – and towards more technical professions, such as Engineering. Government support for Social Science subjects is not as strong as we'd like, as this in turn affects student recruitment.'

'Sociology doesn't attract many European students – across the university the proportion of European students is bigger than for our subject. The European students I've encountered stand out from the others in one respect: they tend to be very, very good and to raise the others to their standard; so I suspect that quality will suffer after Brexit. They're also usually very dynamic. I'm talking about people from Eastern Europe – Poles and Hungarians, etc. We get more of them than from Western Europe. Sociology is not encouraged as a subject by the present government. At this university, we're not discriminated against – we share in the benefits from the general levels of funding, so we're not especially disadvantaged, either.'

Funding. The previous section illustrates the points made about (lack of) funding for Sociology as a subject. None of the Sociology academics commented directly about student fees, except to say that they were linked to an increase in student expectations (see also 'Effect of higher fees/student satisfaction' below).

Student numbers. Student numbers had not decreased at the universities involved in the in-depth studies; one respondent said this was because her university was working harder to keep the numbers steady:

- 'The number of students has increased, but that's because we now offer more courses. The "old" courses still attract about the same number of students. The

whole institution is having to become much more centralised and formalised, and the concentration on UCAS entries is part of that.'

Effect of higher fees/student satisfaction. All the Sociology academics agreed that students expect more for their money now that fees are higher. One linked this to expectations that the university would invest more in technological solutions:

- 'The current generation of students is more computer-literate than previous ones were and they have different expectations with regards to technology. Many schools teach with online technologies, so students expect a continuation of that at university. The way they interact with each other is also shifting and technology is ever so prominent in their day-to-day lives and communication styles.'
- 'Students are much more conscious about what they pay. They are a lot more instrumental, and the whole studying experience has become more commercial. Students are also more proactive in their demands, which I think is a good thing. I am pleased they try to make the most of it and tell us what it is they want.'
- 'The biggest impact of increased tuition fees is on student expectations. When students find themselves paying higher fees, they expect more. Students often consider the money they pay as directly related to the teaching they receive as individuals. What they tend to forget about is everything else they receive as part of the package – e.g., Student Services, the Library, etc. They think of their university life as consisting largely of interaction in the classroom.'
- 'Students are asking whether they are getting the best possible value for their money. Degree apprenticeships in the Social Sciences could be the answer: [Our university] needs to address these. Existing students would bite our hands off if we could offer one. There would be more work-based teaching, no fees and four years' commitment instead of three, but with payment from an employer for much of that time.'

Demographics. Two of the Sociology academics noted that most students were now school leavers – fewer mature students were being recruited:

- 'Most of the students we teach are straight from school. We had more older students and part-timers a few years ago. We don't have any proper figures, but I'd say 70% of our students live at home.'
- 'We used to actively recruit mature students to many Social Sciences courses. This is not exactly discouraged now, but nor are we encouraged to look beyond the UCAS entrants. This has affected us in some instances to the extent that we've changed what were postgraduate taught degrees to undergraduate ones.'

How well the institution supports academics

(see section [“How well the institution supports academics” on page 24](#))

Business

Two of the Business academics said they felt well-supported by both the University and the Library; one of these said there were pressures, but it was up to the individual to manage them. Two said there was immense pressure arising from the conflicts of demand between

teaching, research and administration. One indicated that time pressures mean they don't have time to familiarise themselves with the more sophisticated electronic products in use (which, of course, could result in cancellation of these products further down the line). Sometimes the University doesn't have adequate technology to support such products. These two academics also felt well-supported by the Library.

- 'There's too much teaching and administration and not enough time for research. Two lecturers left last year and I had to cover for both – though the university is getting better at expecting people to take on this kind of additional workload. The Library supports research very well: it uses Inter-Library Loan to get stuff for research it doesn't hold. I applied for an ERSC grant and I needed some special resources (data sets) in order to become eligible. The subject librarian told me to go ahead and get them and the Library would pay.'
- 'We are terribly under time pressure. To give you an example: last week, I had to mark 500 exams in one week alone! I have worked with publishers on learning platforms and like using them but before I can use them in class, I have to get my head around them myself and it's really difficult to find the time for that. And then there is also the problem of facilities – not all lecture theatres have reliable Wi-Fi, so the best learning platform then becomes useless. I do feel well supported by my department and by the library. The challenges are really more about having the time and mental energy for new things.'
- I think my experience has been largely positive, because I'm just responsible for this one module here. So, here, I can focus and have the scope to improve my teaching experience, which was difficult at the post-1992 university where my teaching workload was very high. However, here I am expected to do more research, but I think that is good, because it drives more research-led teaching.' [RG]
- The main support I would need is with managing student expectations. This is not just a one-way street. Students are changing, so we also need to learn about them and their expectations and we need to use new resources like video and interactive learning to "reach" them. This change is quite rapid and we all need to learn how to deal with it.' [RG]

Education

All the educationists said they enjoyed superb support from their respective libraries. One was more equivocal about receiving adequate support from the institution:

- 'We're expected to do more and more with less and less. We're strong here on the idea that teaching and research should go hand-in-hand – it's hard to make it work. I have a strong research background myself, but not everyone does and we all find the workload overwhelming.'

Nursing

Two of the Nursing academics mentioned that there was conflict between the expectation to deliver superb teaching and also to conduct research. One said she'd like to have a better idea of all the resources available for her subject and how to get the most from them and also to have a clearer idea of students' views on them. One said she needed more time to experiment with and understand digital learning solutions.

- 'There's definitely a dichotomy between teaching and research. Nursing and Midwifery are very teaching-heavy subjects. We also have to teach 45 weeks of the year as we admit two cohorts each year. Staff are teaching much longer, and for longer sessions, than they used to. It's a constant battle which we only keep on top of by using non-traditional start dates. We can't physically fit the number of students we need to recruit into one cohort.'
- 'In some ways, we are very well-supported by the institution. In my current role I am being funded to undertake a PhD at another university. Despite the expectation that I will pursue a PhD, I am not given adequate time during the working week for this. On a personal level, I get good support from my peers and from the Library, and reasonable support from my line manager.'
- 'I think it would be very helpful to know what resources are available and how we can get the most out of them for teaching. Also, we need to listen to students more and find out what they want. More internal focus groups on student needs would really help us gearing the classes towards the students' needs.'
- 'It's mainly about having enough time to rattle with new technology and getting your head round it. We do not have enough time to figure out how to get the most out of the technology or digital content.'

Psychology

Although they weren't all directly affected personally, all the Psychology academics acknowledged the conflict between being required to carry out research and excel at teaching. Two of these academics had opted to focus on teaching. The university of one of them assesses academics on either their teaching or their research – whichever they prefer – although this doesn't preclude academics who focus on teaching from doing some research (and it's unlikely that academics who choose to focus on research would be allowed to abandon teaching altogether). The third academic, who was trying to excel at both teaching and research, was obviously under significant pressure.

- 'There is no conflict for me, but lecturers with a high teaching load are under huge pressure to be productive in multiple areas. Very few jobs require competence in so many different areas – teaching, research, administration, securing funds, recruitment – and all this is supposed to be achieved within reasonable working hours.'
- 'I think that's something my university has really put a lot of effort into and the technology here works really well. We record our lectures and it is really easy and works 99.9% of the time and the technology for uploading lecture slides to the VLE is super easy too. I think we are being encouraged to use new ways of teaching. The only thing I can think of would be the squeeze between Research and Teaching, but I don't feel it as much here as I would at other universities.'
- 'Although it keeps changing focus, the university is determined to be recognised for research. It's drawing up a list of people who don't publish. It looks at the quality of research output too now. It wants journal articles from academics to be rated 3* plus, but only Russell Group academics can achieve this regularly. It's very confusing – our contracts now relate to different levels of research. I must admit I'm disheartened. I work hard to increase the quality of my output and I publish in international journals with good ratings, but their impact factors are often just below 3*. I feel that whatever I do is not good enough.'

Sociology

Although they were not all affected by it personally, the Sociology academics, like those in other subjects, raised the issue of conflicting demands between teaching and research. One had opted purely to teach to escape this pressure. One, already focused on teaching, said that she was still under pressure because the groups of students taught are getting larger but the number of lecturers remains the same. One said that better training in new resources and learning tools would encourage academics to use them more. All agreed that they were well-supported by the library.

- 'In general, it would be helpful to receive help to understand new resources and learning tools and knowing how to get the most out of them. I believe lecturers would then be more incentivised to use and evaluate them.'
- 'The key thing that springs to my mind is that the more students you accept as a university, the more pressure you put on teaching staff, who are the ones in the front line. For us, more students means more exams to mark, more dissertations to supervise, more placements to arrange, more students wanting meetings with you, etc. Don't get me wrong, I do want the students to meet me and have demands (after all, they are paying a lot of money for their degree), but it does pile the pressure up as long as the university doesn't employ more teaching staff.'
- 'There's no longer any conflict for me – as a lecturer, I've opted firmly on the side of teaching. There's huge conflict with some academics who are trying to do both teaching and research. We should think of ourselves more as a poly. We're living in a fantasy world if we think we can produce Russell Group-style research. This pulls us in two directions, undermines our sense of identity as a university. The support everyone gets from the Library is brilliant.'